

WILKERSON®



COMPRESSED AIR TREATMENT CATALOG 9EM-TK-190-5

Filters, Regulators, Lubricators and Accessories

the total systems approach to air preparation

WILKERSON®

First incorporated in August of 1948, Wilkerson manufactures a complete line of compressed air treatment and control products to meet a wide variety of industrial, process, consumer and health care applications. Today, Wilkerson serves over 500 different industries throughout the world.

Over the years, Wilkerson facilities, manufacturing and engineering technology have kept pace with increased sales volume, the growing need to satisfy customers' specific requirements and the demands placed on production.

Wilkerson's growing leadership in the industry is due to our

determined commitment to quality; quality of products, services and people. Our dedication to the total quality management process assures our customers that we can consistently provide the highest levels of product quality and customer service required to meet their needs.

From the very beginning, Wilkerson has sold its products through a world-wide, independent distributor network. We currently have 200 distributors throughout North America, plus an expanding network of international distributors in over 40 countries. Our distributors, who have many years of experience

in compressed air treatment and control, offer excellent product knowledge, technical assistance and local inventory. As a result of representing other complimentary products, they are able to satisfy their customers' total requirements.

Today's broad line of Wilkerson products is the result of continuing product innovations and technology advancements which frequently become industry standards. Wilkerson is dedicated to designing and manufacturing innovative products with features and operating characteristics that meet customer requirements for quality, performance, reliability, serviceability, safety and value.

WARNING

Suggested Lubricant - Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application including consequences of any failure, and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

Offer of Sale

The items described in this document are hereby offered for sale by The Company, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated on the separate page of this document "Offer of Sale".

© Copyright 2016, 2014, 2011, 2008, 2003, 2025 Parker Hannifin Corporation. All Rights Reserved.

WILKERSON®

DISTRIBUTION NETWORK

Wilkerson manufactures and markets a complete line of compressed air treatment components and control products. We have a distribution network of over 100 distributors to serve you.

To find the one nearest you, please
visit our DISTRIBUTOR LOCATOR on
www.wilkersoncorp.com



Notes

Table of Contents

Compressed Air Systems	<i>Product Index, Product Selection, Introduction and Technical Information, ANSI Symbols, Selection Guide</i>	Compressed Air Systems A
Filters, Regulators, Lubricators	<i>Particulate Filters, Coalescing Filters, Afterfilters, Exhaust Mufflers, Exhaust Silencers, Liquid Separators, External Drains, Regulators, Precision Regulators, Lubricators, Filter / Regulators, 2 & 3-Unit Combinations</i>	FRL's B
Additional Modular Products	<i>Slow Start, Dump Valves, Redundant Safety Exhaust Valves, Electronic Proportional Regulator, Electronic Proportional Valve, Safety Lockout Valves, Diverter Blocks</i>	Additional Modular Products C
Accessories & Repair Kits	<i>08, 18 / 28, 16 / 26, 90 Series, 0X, 1X, 2X, 3X, 4X, 5X Series</i>	Accessories & Repair Kits D
Stainless Steel Compressed Air Treatment Products	<i>Filters, Coalescers, Regulators, Filter / Regulators, Lubricators</i>	Stainless Steel Products E
Dryers	<i>Refrigeration Air Dryers, Manual Desiccant Dryers, Heatless Desiccant Air Dryers, Automatic Electrical Drain Valve, Zero Air Loss Condensate Drain</i>	Dryers F
Airline Accessories	<i>Flow Controls & Accessories, Control Panel Products, Sensing, LV / EZ, Integrated Fittings</i>	Airline Accessories G
Safety Guidelines		Safety Guidelines H
Offer of Sale		Offer of Sale J

Product Index

Particulate Filters B2-B3

F01	B4
F03	B6
F08	B8
F18	B10
F16	B12
F28	B14
F26	B16
F90	B18
F30	B20
F35	B22
WF602.....	B24

Coalescing Filters B26-B27

M03.....	B28
M08.....	B30
M18.....	B32
M16.....	B34
M28.....	B36
M26.....	B38
M21.....	B40
M90.....	B42
M30.....	B44
M35.....	B46

After Filters B48

A18	B49
A28	B50

Exhaust Mufflers

F23	B52
F33	B53

Exhaust Silencer

XMC.....	B54
----------	-----

Liquid Separators

WSA / WSO.....	B56
WWSA	B58

External Drains

X01	B75
X02 / XB3	B76
X51	B78

Regulators B63-B65

R03	B66
RB3 / RA3	B68
RA4	B70
R24, R25.....	B72
R45, R46.....	B74
R08	B76
R120.....	B78
R18.....	B80
R16.....	B82
R28	B84
R26	B86
R90	B88
R30	B92
R40	B94

Common P1 Regulators B97

R09	B98
R19	B100

Dial-Air™

Regulators B103

R11	B104
R21.....	B106
R31.....	B108
R41.....	B110

Precision Regulators B113

P16.....	B114
P17.....	B116
WRA302.....	B118
WRA102.....	B120
WRA102BP	B122
WRA171.....	B124
WEA632	B126
WBA208.....	B128
WBA45.....	B130

Lubricators..... B132-B133

L01	B134
L03.....	B136
L08.....	B138
L18	B140
L16 / L17	B142
L28.....	B144
L26 / L27.....	B146
L90.....	B148
L30.....	B150
L40.....	B152

Filter / Regulators..... B155-B157

B03.....	B158
BB3 / BA3	B160
B08.....	B162
B18	B164
CB6	B166
PC6	B168
B28.....	B170
B90.....	B172

Combinations –

2-Unit B174-B175

D03.....	B176
D08.....	B178
CB7	B180
D18.....	B182
D28.....	B184
D90.....	B186

Combinations –

3-Unit B188-B189

C03.....	B190
C08.....	B192
C18.....	B194
C16.....	B196
C28.....	B198

C26.....	B200
----------	------

C90.....	B202
----------	------

Discontinued Product Series Kits... B204

(F34, F43, M31, M32, M43, M45)

Additional Modular Products C1

Slow-Start /

Quick Dump Valves C2-C3

E09	C4
E18 / E28	C6
E28	C8
E90	C16
S18 / S28	C12
S90	C16
Q09 / Q19.....	C18

Electronic

Proportional Regulator C20-C21

ER09, ER19	C22
ER90	C38
ER1 / ER2.....	C40

Electronic Proportional Valve C43

EPV	C44
-----------	-----

Safety Lockout Valves C52

V40 / V60 / V73	C52
V90	C53

Diverter Blocks C54

N08.....	C55
N18 / N28.....	C56
NJ8	C57
P3Y	C58

Modular Accessories and

Repair Kits D1

Filter Replacement Element Kits.. D2

Filter Replacement Bowl Kits D3

Accessories – Filters D4-D5

Accessories – Regulators D6-D7

Regulator Replacement Kits D8

Lubricator Replacement Kits D9

Accessories – Lubricators.. D10-D11

Filter / Regulator

Replacement Repair Kits D12

Accessories –

Filter / Regulators..... D13-D15

Accessories – 08 Series D16

Accessories – 18 / 28 Series D17

Accessories – 16 / 26 Series D18

Accessories – 90 Series D19

Stainless Steel Products..... E1**Stainless Steel Particulate Filters E3**

SF1E4

SF2E6

Stainless Steel Coalescing Filters E9

SM1 E10

SM2 E12

Stainless Steel Regulators E15

SR1 E16

SR2 E18

**Stainless Steel Filter / Regulators ...
E21**

SB1E22

SB2E24

Stainless Steel Lubricator E27

SL2E28

Dryers..... F1

Sources of Contamination.....F2-F4

Purification TechnologiesF5

Quality Standards.....F6

Purity LevelsF7

Refrigeration Air Dryers –

SPE, DRD F8-F11

Mini Disposable

Inline Desiccant Dryer F12

Manual Desiccant Dryers..... F13

X06.....F14-F15

X03 / X04F16-F17

X25..... F18

X08..... F19

Heatless Desiccant Air Dryers –

TW..... F21-F24

Automatic Electrical Drain Valve –

WDV3-G F25

Zero Air Loss Condensate Drain –

ED F26

Airline Accessories..... G1**Control Panel Products.....G3**

Basic FeaturesG4-G5

Push Button,

Selector Switches with Bodies... G6

Push Buttons..... G7

Selector Switches..... G8

Valve Bodies & Accessories..... G9

Dimensions & Assembly.....G10

Legend Plates, Specifications... G11

MountingG12

Visual Indicators 22mm (7/8")G13

Foot Pedal Operated SwitchesG14

Two-Hand Controls G15-G16

Sensing**(Pneumatic Control Components) G17**

Basic Features –

Pneumatic SensorsG18

Limit Switches –

3/2 Miniature G19-G20

3/2 Compact..... G21-G22

K Series – Standard Duty . G23-G26

J Series – Heavy Duty G27-G29

PWBA Blocking Valves G30-G31

Threshold Sensors G32-G34

LV / EZ (Lockout Valves)..... G35

LV / EZ Features G36

LV Series –

Features, Applications, Mounting G37

Ordering Information..... G38

Dimensions G39-G40

EZ Series –

Features, Applications, Mounting G41

DimensionsG41

Ordering Information..... G42

Flow & Accessories..... G43

Integrated Fittings G45

Product Index G46

Compact Flow Control ValvesG47

Miniature Flow Control Valves..... G48

In-Line Flow Control Valves .. G49-G50

Compact Metal

Flow Control Valves.....G51

Check Valves G52

Accessories..... G53

Tank Valves & Air Chucks G54

EM Series Exhaust Mufflers G55

Muffler / Flow Controls..... G55

Breather Vents G56

ES Series Silencer G56

ASN Air Line SilencerG57

P6M Air Line Silencer G58

Muffler-Reclassifier ECS G59

Automatic Drip Leg Drain &

Relief Valve G60

Relief Valves - Diaphragm TypeG61

Shuttle Valves &

Quick Exhaust G62-G64

AirGuard Protection System . G65-G66

Drain Valves..... G67-G68

Safety Blow Guns G69-G71

Safety Guidelines..... H1-H4**Offer of SaleJ1-J2**

Product Selection Chart

Basic Unit	Series	Port Size											Flange Size		Bowls			Elements (Micron)				Page
		1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	3	4	6	Poly	Metal	Metal SG	5	20	40	Adsorber		
F I L T E R S	F01		X											Aluminum Body			Std.	—	—	—	B4	
	F03	X	X											X	X	—	Std.	—	—	—	B6	
	F08		X											X	X	—	Std.	—	—	—	B8	
	SF1		X											316 Stainless Steel			Opt.	Std.	—	—	E4	
	F18		X	X	X									X	X	—	Opt.	—	Std.	—	B10	
	F16		X	X	X									X	X	—	Std.	—	—	—	B12	
	SF2				X									316 Stainless Steel			Opt.	—	Std.	—	E6	
	F28			X	X	X								X	X	—	Std.	—	—	—	B14	
	F26		X	X	X									X	X	—	Std.	—	—	—	B16	
	F90					X	X							—	—	X	Opt.	—	Std.	—	B18	
	F30					X	X							X	X	—	Std.	—	—	—	B20	
	F35							X	X	X				—	Metal w/ DPI		Std.	—	—	—	B22	
	WF602								X					—	—	X	Opt.	—	Std.	—	B24	
C O A L E S C I N G F I L T E R S	M03	X	X											X	X	—	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B28		
	M08		X											X	X	—	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B30		
	SM1		X											316 Stainless Steel			Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	E10		
	M18		X	X	X									X	X	X	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B32		
	M16		X	X	X									X	X	—	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B34		
	SM2				X									316 Stainless Steel			Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	E12		
	M28			X	X	X								X	X	X	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B36		
	M26		X	X	X									X	X	X	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B38		
	M21			X										X	—	—	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B40		
	M90					X	X							—	—	X	Type "B" 1.0	Type "C" 0.01	—	B42		
	M30				X	X	X							X	X	—	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B44		
	M35								X	X				X	X	—	Type "B" 1.0	Type "C" 0.01	Type "D" 0.003	B46		

Basic Unit	Series	Port Size				Bowls			Desiccant	Page
		1/4	3/8	1/2	3/4	Poly	Metal	Metal SG		
AFTER FILTERS	A18	X	X	X		X	X	X	Type "B" 5 Micron Element	B49
	A28		X	X	X	X	X	X	Type "B" 5 Micron Element	B50

Basic Unit	Series	Port Size									Spring Range										Page
		1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	15	25	30	40	60	125	160	180	200	250	
STANDARD REGULATORS	R03	X	X								Opt.	—	Opt.	—	Std.	Std.	—	—	—	—	B66
	RB3		X								—	Std.	—	—	Std.	Std.	—	—	—	—	B68
	RA3		X								—	Std.	—	—	Std.	Std.	—	—	—	—	B68
	RA4	X	X								—	—	Std.	—	Std.	Std.	—	—	—	—	B70
	R24, R25	X	X								—	Std.	—	—	Std.	Std.	—	—	—	—	B72
	R45, R46		X	X							—	Std.	—	—	Std.	Std.	—	—	—	—	B74
	R08		X								—	—	Opt.	—	Opt.	Std.	—	—	—	—	B76
	R120		X	X	X	X	X				—	—	—	—	Opt.	Std.	—	—	—	Opt.	B78
	SR1		X								—	Opt.	—	—	Opt.	Std.	—	—	Opt.	—	E16
	R18		X	X	X						—	—	Opt.	—	Opt.	Std.	—	—	—	Opt.	B80
	R16		X	X	X						—	—	—	—	Opt.	Std.	—	—	—	Opt.	B82
	SR2				X						—	—	—	—	Opt.	Std.	—	—	—	Opt.	E18
	R28			X	X	X					—	—	—	—	Opt.	Std.	—	—	—	Opt.	B84
	R26			X	X	X					—	—	—	—	Opt.	Std.	—	—	—	Opt.	B86
	R90					X	X				—	—	—	—	Opt.	Std.	—	—	—	Opt.	B88
	R30					X	X	X			—	—	—	—	—	Std.	—	Opt.	—	—	B92
	R40								X	X	—	—	—	—	—	Std.	—	Opt.	—	—	B94
	R09		X								—	—	Opt.	—	Opt.	Std.	—	—	—	—	B98
	R19			X							—	—	Opt.	—	Opt.	Std.	—	—	—	Opt.	B100
DIAL	R11		X								—	—	—	—	Opt.	—	Std.	—	—	—	B104
	R21		X	X	X	X					—	—	—	Opt.	—	—	Std.	—	—	—	B106
	R31					X	X	X			—	—	—	—	—	—	Std.	—	—	—	B18
	R41								X	X	—	—	—	Opt.	—	—	Std.	—	—	—	B110

Basic Unit	Series	Port Size			Spring Range											Page
		1/4	3/8	1/2	2	15	25	30	40	50	60	100	120	125	150	
PRECISION REGULATORS	P16	X	X	X	—	Opt.	—	Opt.	—	Opt.	—	—	—	Std.	—	B114
	P17	X			—	—	—	—	Opt.	—	—	—	Opt.	—	—	B116
	WRA302	X			—	—	—	X	—	—	X	X	—	—	—	B118
	WRA102	X			—	—	—	X	—	—	X	—	—	—	X	B120
	WRA102BP	X			—	—	—	X	—	—	X	—	—	—	X	B122
	WRA171	X			—	—	—	X	—	—	—	—	—	—	—	B124
	WEA632	X			—	—	—	—	—	—	X	—	X	—	—	B126
	WBA208	X			—	—	—	—	—	—	—	—	—	—	—	B128
	WBA45	X			—	—	—	—	—	—	—	—	—	—	—	B130

Product Selection Chart

Basic Unit	Series	Type	Port Size									Bowls			Filling	Page
			1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	Poly	Metal	Metal SG		
LUBRICATORS	L01	Miniature Standard		X	X							Aluminum Body			Cannot be filled under pressure	B134
	L03	Miniature EconOmist™	X	X								X	X	—	Cannot be filled under pressure	B136
	L08	Miniature EconOmist™		X								X	X	—	Can be filled under pressure	B138
	L18	Compact EconOmist™		X	X	X						X	X	X	Can be filled under pressure	B140
	L16	Compact EconOmist™		X	X	X						X	X	X	Can be filled under pressure	B142
	L17	Compact AtoMist		X	X	X						X	X	X	Cannot be filled under pressure	B142
	L28	Standard EconOmist™			X	X	X					X	X	X	Can be filled under pressure	B144
	L26	Standard EconOmist™		X	X	X						X	X	X	Can be filled under pressure	B146
	L27	Standard AtoMist		X	X	X						X	X	X	Cannot be filled under pressure	B146
	SL2	Standard AtoMist				X						316 Stainless Steel			Can be filled under pressure	E28
	L90	Large EconOmist™						X	X			—	—	X	Can be filled under pressure	B148
	L30	Large EconOmist™						X	X			X	X	X	Can be filled under pressure	B150
	L40	Extra Large EconOmist™								X	X	X	X	X	Can be filled under pressure	B152

Basic Unit	Series	Port Size						Bowls			Elements (Micron)			Spring Range										Page
		1/8	1/4	3/8	1/2	3/4	1	Poly	Metal	Metal SG	5	20	40	15	25	30	50	60	125	200	250			
F I L T E R / R E G U L A T O R S	B03	X	X					X	X	—	Std.	—	—	Opt.	—	Opt.	—	Opt.	Std.	—	—	B158		
	BB3		X					X	—	—	Std.	—	—	—	Opt.	—	—	Opt.	Std.	—	—	B160		
	BA3		X					X	—	—	Std.	—	—	—	Opt.	—	—	Opt.	Std.	—	—	B160		
	B08		X					X	X	—	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	—	B162		
	SB1		X					316 Stainless Steel			Std.	—	—	—	Opt.	—	—	Opt.	Std.	—	—	E22		
	B18		X	X	X			X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B164		
	SB2				X			316 Stainless Steel			Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	E24		
	CB6		X	X	X			X	X	X	Std.	—	—	—	—	—	Opt.	—	Std.	—	—	B166		
	PC6		X	X	X			X	X	X	Opt.	—	Std.	Opt.	—	Opt.	Opt.	—	Std.	Opt.	—	B168		
	B28			X	X	X		X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B170		
	B90					X	X	—	X	X	Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	B172		

Basic Unit		Series	Port Size					Bowls			Elements (Micron)			Spring Range									Page
			1/8	1/4	3/8	1/2	3/4	1	Poly	Metal	Metal SG	5	20	40	15	25	30	50	60	125	200	250	
COMBINATIONS	TWO UNIT	D03	X	X					X	X	—	Std.	—	—	Opt.	—	Opt.	—	Opt.	Std.	—	—	B176
		D08		X					X	X	—	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	—	B178
		CB7		X	X	X			X	X	X	Std.	—	—	—	—	—	Opt.	—	Std.	—	—	B180
		D18		X	X	X			X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B182
		D28			X	X	X		X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B184
		D90						X	—	—	X	Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	B186
	THREE UNIT	C03	X	X					X	—	—	Std.	—	—	Opt.	—	Opt.	—	Opt.	Std.	—	—	B190
		C08		X					X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	—	B192
		C18		X	X	X			X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B194
		C16		X	X	X			X	X	X	Std.	—	—	—	—	—	Opt.	—	Std.	—	—	B196
		C28			X	X	X		X	X	X	Std.	—	—	—	—	Opt.	—	Opt.	Std.	—	Opt.	B198
		C26		X	X	X			X	X	—	Std.	—	—	—	—	—	—	Opt.	Std.	—	Opt.	B200
		C90						X	—	—	X	Std.	—	Opt.	—	—	—	—	Opt.	Std.	—	Opt.	B202

Basic Unit	Series	Port Size				Bowls			Desiccant			Page
		1/4	3/8	1/2	3/4	Poly	Metal	Metal SG				
DESICCANT	DD10	X				Disposable Polycarbonate			—	—	Non-Toxic	F12
	X06	X				X	—	—	Silica Gel	4A Molecular Sieve	Non-Toxic	F14
	X03	X				X	X	—	Silica Gel	4A Molecular Sieve	Non-Toxic	F16
	X04	X		X		X	X	—	Silica Gel	4A Molecular Sieve	Non-Toxic	F16
	X25			X		—	X	—	Silica Gel	4A Molecular Sieve	Non-Toxic	F18
	X08	X				X	—	—	Silica Gel	—	—	F19
	TW					—	—	—				F21

Compressed Air Systems

Air Treatment and Control Components

Compressed air is an essential power source for most industries today. It is a safe operation, relatively inexpensive to operate and very reliable. However, compressed air is susceptible to various types of contamination which not only reduces its value as a power source, but can seriously affect the performance of other pneumatic equipment and, therefore, productivity.

Air valves, air cylinders, logic control systems and air tools can malfunction due to air-borne contamination. Air intended for air-gauging, air conveyors, spray painting, instrumentation, automation and food processing can be rendered unusable. Poor product quality and system shutdown due to compressed air contamination can occur frequently. There are many other problem areas associated with compressed air contamination, as numerous companies in differing industries can attest to.

With today's technology, an efficient, cost-effective compressed air system can be designed to provide years of reliable service if the proper air treatment and control equipment is

installed. Operating and maintenance costs can be significantly lowered by removal of most contaminants (dirt, rust, pipe scale, oil aerosols, liquid water and water vapor, microscopic particles and oil vapor). With a well-designed air system and the use of quality air treatment and control products, you can realize extended service life of components, increased flow capacity with minimum pressure loss and improved production efficiencies in your manufacturing processes.

Air Treatment and Control

To take the fullest advantage of the benefits that can be derived from using compressed air, it must be correctly and adequately prepared. Clean, dry, regulated air is the corner-stone of an efficient air system. Where necessary, lubricated air may be required to provide dependable operation and satisfactory service life of certain air tools and components.

Dryers

All atmospheric air contains some water vapor. When the air is compressed, the water content for a given volume of air increases. Because of the effects of compression, most of this water

vapor turns into damaging liquid water in your air system. Additionally, as air flows through the compressed air line system, the water vapor condenses in the pipeline. This moisture in the pipeline results in rust, scale, clogged orifices, malfunctioning of pneumatic controls, and increased wear of moving parts as it washes away the lubricant.

Compressed air dryers reduce the water vapor concentration and can prevent further liquid water formation in air lines. Liquid water and water vapor removal increases the efficiency of air operated equipment, prevents corrosion and clogging, extends the service life of pneumatic components, prevents air line freeze-ups and reduces product rejects.

For more detailed information on Dryers, refer to Section F.

Filters

Air-borne contamination from the atmosphere, such as dust, water vapor and hydrocarbons enter the air system through the compressor intake. The contaminants, usually 4 million particles per cubic foot, can easily pass through a typical compressor intake filter since over 80% of these particles are less than 2 microns in size. The compressor also contributes to the



problem with wear particles, oil vapor and fine aerosols that leak past glands and seals from the oil sump into the compression chamber.

Such contamination in the air system can effect the efficient operation of various pneumatic devices and, over time, damage them. Compressed air filters that are installed upstream of the air devices will remove most of these contaminants. In addition, by design these filters will also remove most liquid water from the air line.

The need for higher quality air is more evident today than in the past. To gain improved production efficiencies through automation, more sophisticated, technically advanced pneumatic equipment and instrumentation is being used throughout industry. Due to the critical nature of these applications, the need for extremely clean, virtually oil free air is required. Coalescing (oil removal) and oil vapor removal filters should be used for applications requiring high quality air.

Regulators

All pneumatic devices are designed to provide optimum performance and service life at a specific air pressure. While it is feasible to operate these devices at pressures

in excess of the manufacturer's recommended operating conditions, it is not advisable to do so. Operating at higher pressures can cause excessive wear and damage to the device. Further, operating your compressed air system at a higher-than-required pressure wastes energy and is not cost-effective.

To obtain the best operation and service life of your pneumatic equipment use the proper pressure level recommended by the manufacturer. A regulator (pressure control valve) is normally used to reduce and maintain a downstream pressure while the amount of air required to the device may vary with the demand.

Filter / Regulators

The integral Filter / Regulator units combine all the functions and features of a filter and a regulator, as discussed above, into one compact, high performance, space-saving unit.

Lubricators

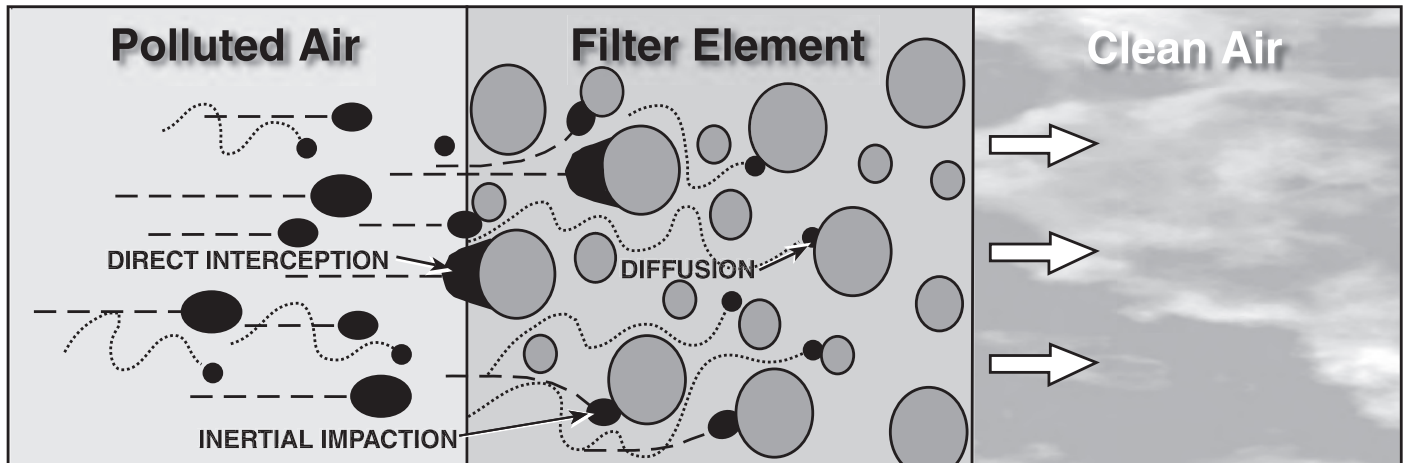
Getting the proper lubrication to the proper device at the proper time is fundamental to preventative maintenance, longer service life and increased productivity. The efficiency of air motors, control valves, cylinders and other air

actuators can be greatly enhanced when the proper amount of lubrication is supplied.

Air line lubricators are specifically designed to generate and introduce an oil aerosol (mist) into the compressed air flow. The air flow then carries the oil to the pneumatic devices where the lubricant mist coats the moving and sliding surfaces thus reducing friction and wear.

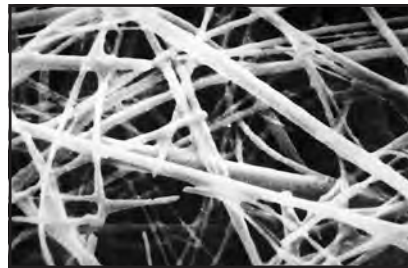
To provide satisfactory lubrication to your air devices most lubricators have a proportional delivery system. This feature automatically provides a nearly constant oil-to-air ratio over a wide range of air flows.

Filter Technology – Mechanisms of Filtration



Coalescing Filters

Essentially, coalescing filters (Type B, B1 and C) rely on what is known as mechanical filtration for their effectiveness. The main mechanisms of mechanical filtration are direct interception, inertial impaction and diffusion. Electrostatic attraction can have some bearing although the efficiency of Wilkerson coalescing filters is not dependent on this mechanism.



Above: Clean borosilicate microfiber seen at a magnification factor of 3900. Right: The same filter material in a contaminated state at the same degree of magnification.



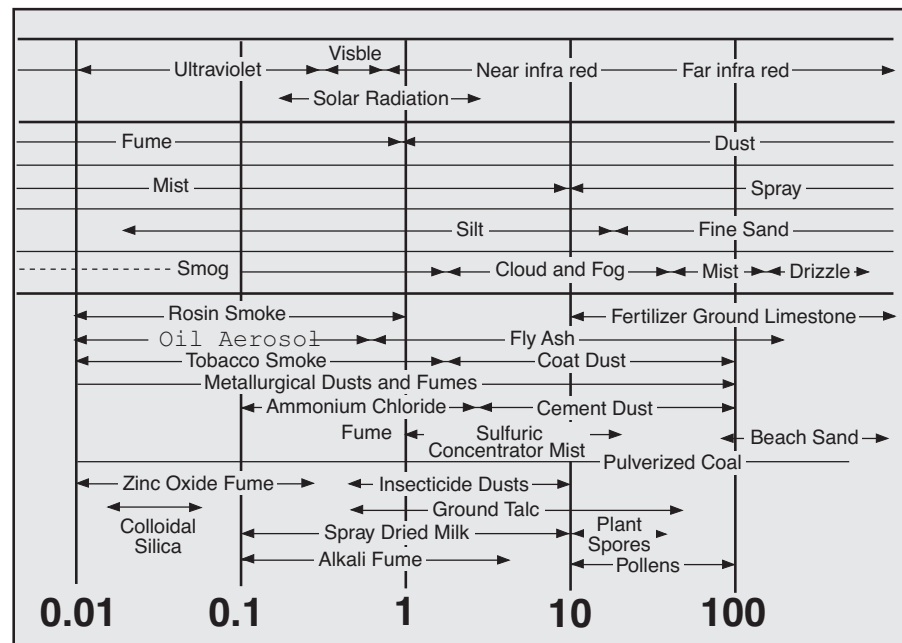
When all mechanisms are combined and utilized by a deep bed of the correct type of filter material, removal of virtually all particles, whether liquid or solid, is achieved.

Direct Interception occurs when a particle collides with and adheres to a fiber of the filter material without deviating out of the streamline flow. This mechanism tends to take place on the surface of the filter material and affects mainly larger particles over 1 micron in size.

Inertial Impaction occurs when a particle is unable to follow the tortuous path around the filter fibers and eventually collides with and adheres to one of the fibers. Typically affecting particles in the 0.3 micron -1 micron size range.

Diffusion or Brownian Movement, as it is sometimes called, occurs with extremely small particles which tend to wander within the gas stream, increasing their chances of colliding with and adhering to a fiber. This usually affects particles below 0.3 micron in size. A degree of overlap takes place with the mechanisms, the extent varying on the conditions.

Pollution Size Chart



To assist in understanding the parameters of filtration, refer to this pollution size comparison chart. Look at the size of a major contaminant, oil aerosol! It is in the region of 0.01 - 0.8 micron. Tobacco smoke is also

a liquid aerosol in a similar size band 0.01 -1.2 micron. Observe the smoke test yourself, appreciate the size of the problem! The smallest particle the human eye can see is in the order of 40 microns.

Particulate Filters

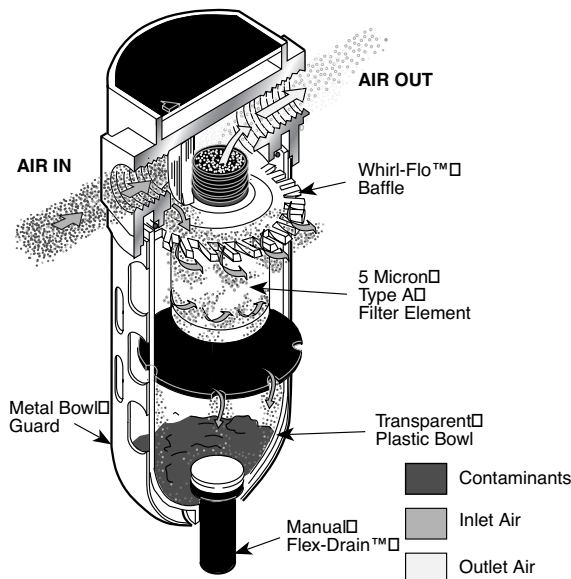
For the removal of solid particle contaminants down to 5 microns and the separation of bulk liquids.

This type of filter is generally used in industrial applications where liquid water and oil, and harmful dirt particles must be removed from the compressed air system. This type of filter should also be used as a *prefilter* for the Coalescing (oil removal) filter.

Operation

Wet and dirty inlet air is directed downward and outward in a circular pattern by the turbine-shaped upper baffle. This action mechanically separates a large amount of the liquid and gross particles, which then flow down the inside of the bowl, past the lower baffle, into the quiet zone to be drained away. The quiet zone baffle prevents the contaminants from re-entering the air flow stream.

The partially cleansed air then passes through the filter element. By utilizing depth filtration, the 5 micron filter media provides superior filtration, exceptional service life and minimum pressure drop.



Coalescing Filters (Oil Removal)

Specifically designed for the removal of solid particles, water and oil aerosols down to 0.01 micron. Maximum remaining oil content of air leaving the filter down to 0.01ppm at 70°F (21°C) at a pressure of 100 PSIG (6.9 bar g) using a typical compressor lubricant. Two filter element grades are offered to better meet your air quality requirements.

Grade B and B1 filter elements are used for most air coalescing applications where the removal of liquid aerosols and submicronic particles for *general* air quality is required.

Protection of components such as air valves, cylinders, as well as air conveyors, air gaging, air bearings, air control circuits and paint spraying equipment are examples of specific end-use applications. This grade of filter element should be used as a *prefilter* for the *Grade C* coalescing filter.

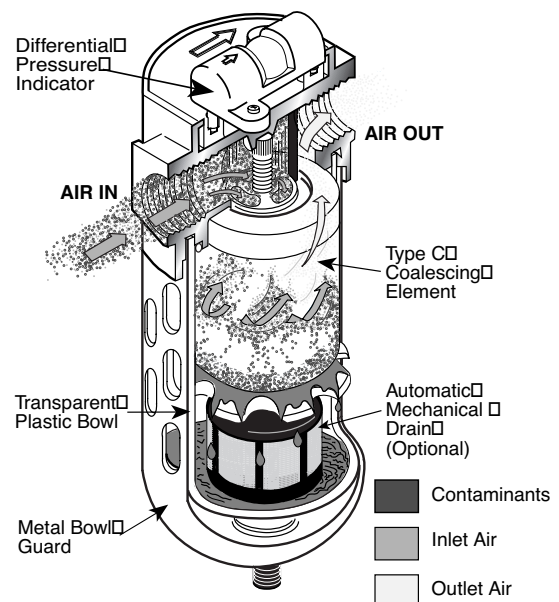
Grade C high-efficiency filter elements are used where the removal of extremely fine particulate and virtually “oil-free” or high quality air is necessary. Specific end-use applications are protection of critical air control circuits, air logic systems, flow and temperature controllers, food processing, electronics, health care and film processing. This grade of filter element should be used as a *prefilter* for the *Grade D* oil vapor removal filter.

Operation

The filter element design utilizes a borosilicate micro fiber that provides superior filtration efficiency, quick draining and minimum pressure drop. Unlike standard particle filters, air flow is inside to out. The compressed air / gas passes through the inner layer of the filter element which acts as an integral pre-filter to remove large contaminants. This gives protection to the layer of high efficiency filter material which substantially removes submicronic aerosols and solids from the air flow stream. Solid particles are permanently trapped within the filter media.

The fine liquid particles, including aerosols, after initially being trapped by the fibers of the filter media, begin to collect or coalesce forming larger droplets. These droplets, along with other large droplets present, are pushed to the outer surface. Here, the anti-reentrainment barrier collects the droplets as they break free from the micro fiber and allow them to gravitate within its cellular structure forming a “wet band” around the bottom of the element.

Clean filtered air / gas passes through the anti-reentrainment barrier above the “wet-band” where the resistance to flow is less, leaving a quiet zone of no air / gas movement in the bottom of the filter housing. The separated liquid drops from the bottom of the filter element and falls through the, without being re-entrained, to the bottom of the filter housing where it collects to be removed by a drain.



Oil Vapor Filters

Activated carbon element for the removal of oil vapor and oil associated odors. Maximum remaining oil content of air leaving the filter is 0.003 ppm at 70°F (21°C) at a pressure of 100 PSIG (6,9 bar g). For the *Grade D* filter element, two types of designs are used depending on the size and flow capacity of the filter housing.

An oil vapor filter is used, in conjunction with a *Grade C* filter element, where the application requires very high air quality. Typical applications are food processing and packaging, pharmaceutical, fermentation, electronics and semi-conductor, and critical air control.

Operation

While the *Grade B*, *B1* and *C* filter elements can remove extremely fine liquid and solid particles, they cannot remove gaseous contaminants such as oil vapor or odors. To do this you must employ the physical phenomena of adsorption. Activated carbon, having an affinity for oil vapor molecules and with an extremely high surface area, created by its capillary structure, is used.

Our activated carbon *Grade D* filter elements are designed to maximize the adsorption properties of the carbon. This is achieved by first passing the air through carbon granules located either in an annular space or tubular section. The granules provide a very high ratio of surface area to volume, and when arranged in a deep bed, increases the dwell time of the air flow. This type of design provides the benefit of both high efficiency and longer service life of the activated carbon.

Differential Pressure Indicator (DP2, DP8)

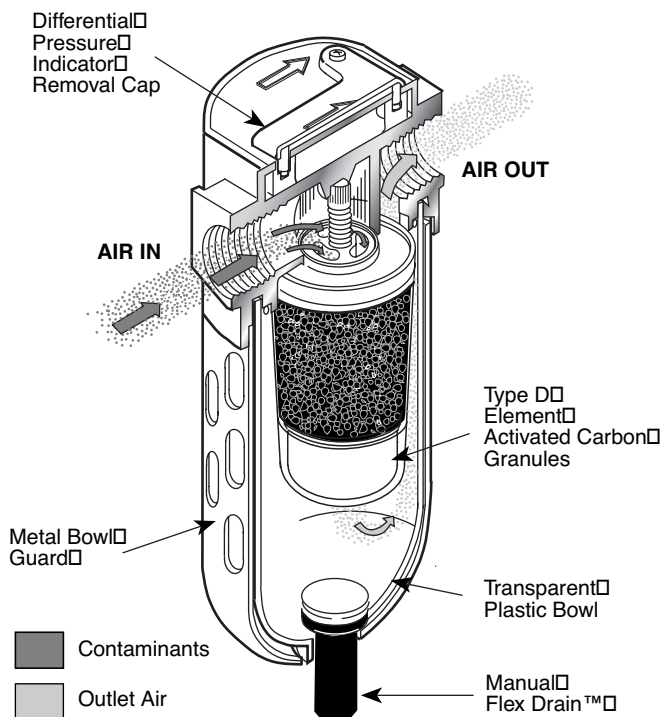
The Wilkerson direct mounting Differential Pressure Indicator is equipped standard on most Coalescing Filter models. It provides a maintenance free means of determining the service life of the filter element. With a new filter the indicator shows all green, and progresses to a full red indication a 7-8 PSID, indicating the element should be changed. The magnified indicator can be easily seen from the top or either side of the filter, and with only one moving part will provide reliability and long life.

The Differential Pressure Indicator cannot be retrofitted to Wilkerson filters ordered without it. It is available as a replacement accessory kit.

Note: The maximum operating pressure for metal or plastic bowls with this Indicator is 150 PSIG. The maximum operating temperature is 150°F for metal bowls and 125°F for plastic bowls.

DP3 Differential Pressure Gauge

The Wilkerson direct mounting Differential Pressure Gauge (non-pressurized face) is standard on all mainline filters and it is available as an accessory in kit form. With a scale reading to 20 PSID (1370 m bar dp) the gauge gives a quick indication of the status of the filter element in the filter. The gauge provides a reliable method to help ensure that the filter element is changed at the most economical and convenient time.



Coalescing Elements Features and Benefits

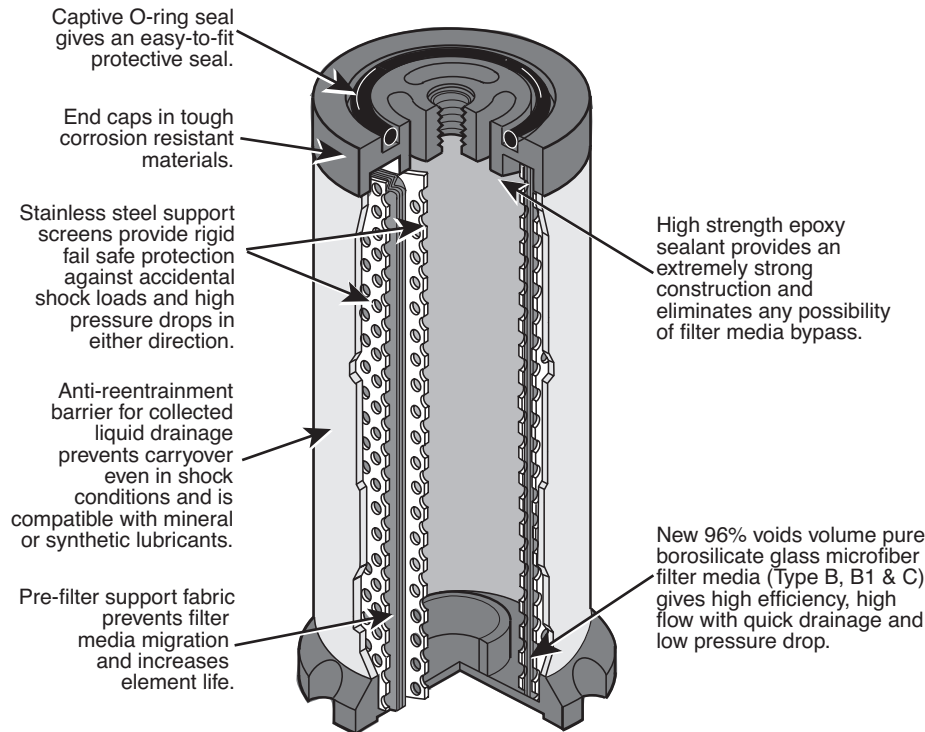
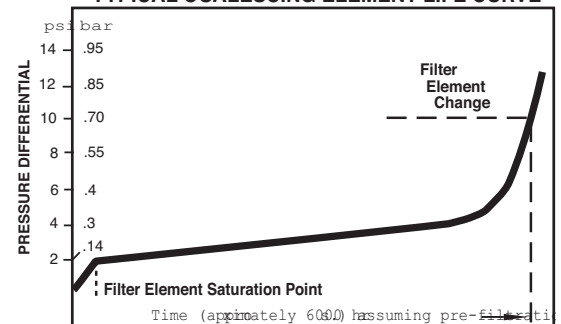
Type B, B1 & C

How The Elements Work

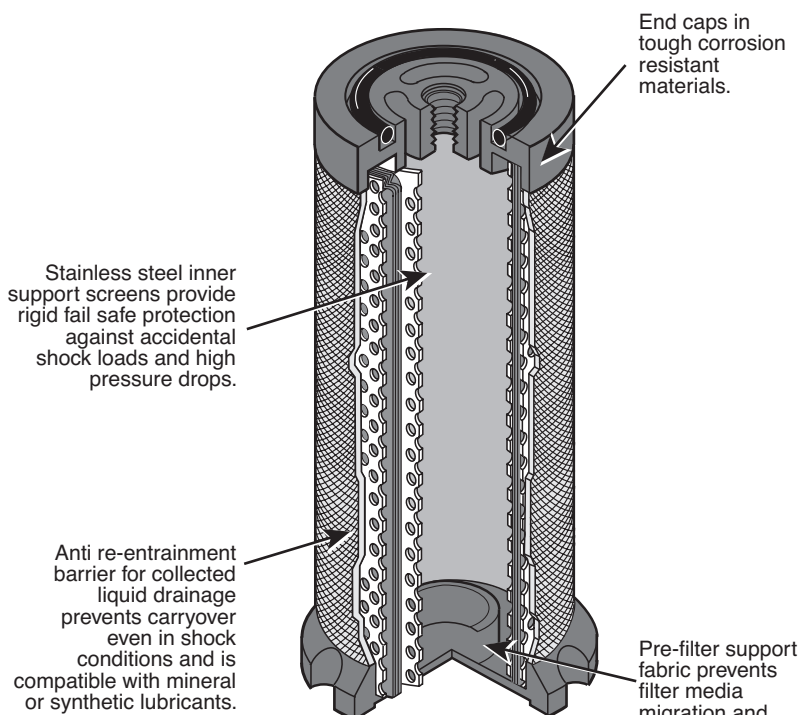
Using the principles of mechanical filtration, the filter media removes the solid particles first in the pre-filter support layers and then in the actual filter media. These particles remain permanently trapped and gradually cause an increase in pressure drop. The liquid particles similarly collected coalesce together forming larger droplets and as the flow is inside to out, are pushed to the outer surface. Here, the anti-reentrainment barrier prevents them from being introduced back into the airstream and instead drains them through its cellular structure to the bottom of the element. The resultant "wet-band" on the bottom of the element, in presenting a high pressure drop area, ensures that the filtered air passes through the upper portion of the element. This creates a "quiet zone" in the bottom of the filter through which the liquid falls to the bottom of the filter bowl and is drained away via the automatic drain.

As mentioned earlier, solid particles cause the pressure drop to slowly increase throughout the working life. Initially, during the period to reach an equilibrium saturation, as determined by the upstream liquid contamination concentration, the pressure drop rises sharply as shown below. This is a typical pressure drop versus time characteristic for a coalescing filter. The end of useful and economic service life is indicated by an accelerating increase in pressure drop. The element should be replaced every 12 months or 6000 working hours under normal working conditions.

TYPICAL COALESCING ELEMENT LIFE CURVE



B1 and C Element



B Element

Adsorption Elements Features and Benefits

Type D

How The Elements Work

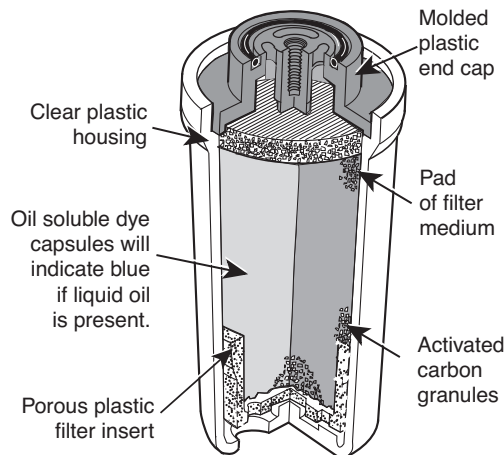
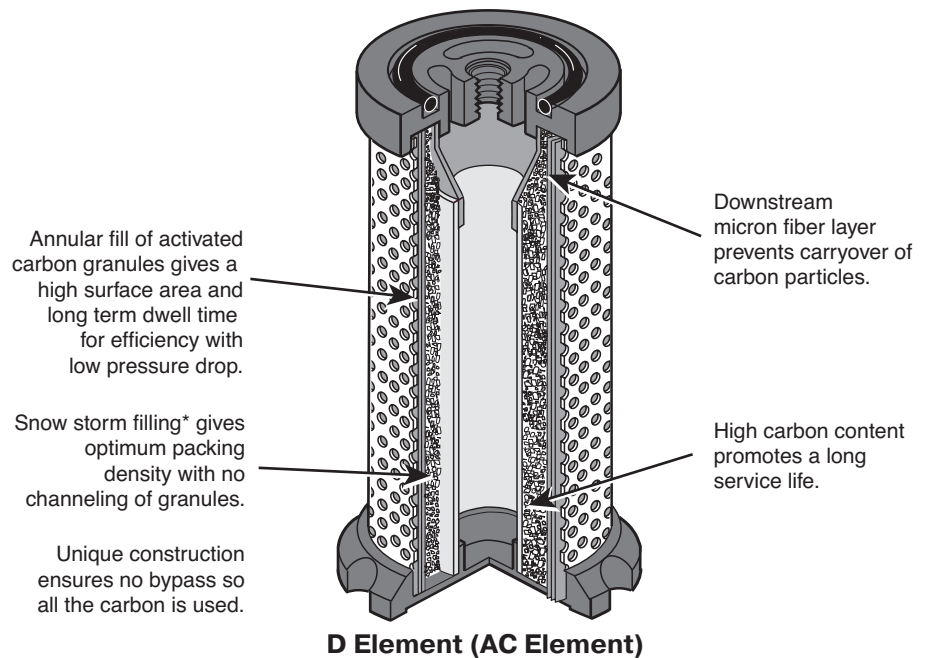
While mechanical filtration employing the Type C element is capable of removing extremely fine liquid or solid particles even as small as 0.01 micron it cannot remove gaseous contaminants such as oil vapor or odors. To do this we must employ the physical phenomena of adsorption. Activated carbon, having an affinity for oil vapor molecules and with an extremely high surface area, created by its capillary structure, is used for this.

Wilkerson activated carbon elements are designed to maximize the adsorption properties of the carbon. This is achieved by first passing the air through carbon granules, snow storm filled* into either an annular space or tubular section. The granules provide an extremely high surface area to volume and when arranged in a deep bed that increases dwell time gives the benefit of both efficiency and service life. After being passed through the carbon, the air goes through a layer of microfiber to prevent migration of fine carbon particles downstream.

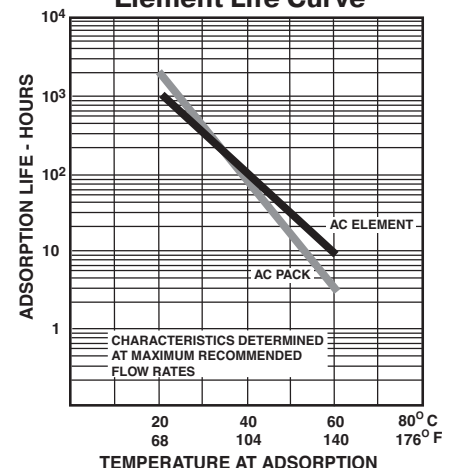
Adsorption elements have a limited life and this is affected by many factors but principally temperature. Obviously, the higher the inlet temperature, the more oil vapor there is present, for example at 104°F (40°C) there is more than ten times the oil vapor than at 70°F (21°C). For this reason, activated carbon filters are best installed at the lowest possible system temperature. The type C filter should always precede a Type D filter.

The typical life of an adsorption element is in the region of 1000-2000 hours at 70°F (21°C). Filtration temperature is based on tests carried out on a Chlorobenzene test rig, however, this is best determined in practice by a routine "odor" check.

Oil vapor has a distinct odor. The least expensive and very effective way to check for oil vapor getting through the filter is to install a small bleed valve downstream. Periodically crack this valve and smell the air. The human nose is extremely sensitive to oil vapor and at the first hint of this odor, change the element.



Typical Adsorption Element Life Curve



Type B Filter Element Specifications

Efficiency

99.97% when tested with 0.3 micron aerosol DOP test Federal Standard 209B. Compatible with mineral and synthetic oils.

Residual Oil

0.5 ppm / wt (inlet temperature / pressure 70°F / 100 PSIG when analyzed using infra red spectrophotometry based on the Pneurop 6611 procedure.

Air Quality Class *

Conforms to ISO 8573 Class 3 or better

Flow

Inside to outside

Filter Media

Resin impregnated borosilicate glass microfiber

Support Structure

Inner 304 Stainless Steel support cylinder with outer polymeric sleeve.

End Caps

Glass filled polyamide material

Initial Differential

Pressure Dry — 1.5 PSID

Initial Differential

Pressure Wet — 2.5 PSID

Flow Range — 5 to 4800 SCFM
@ 100 PSIG

Application

Installations as a coalescing prefilter for general purpose protection or as a prefilter to a high efficiency coalescer.

Appearance

White polymeric outer sleeve with black end caps.

* **"M" Series Coalescing Filters, with Type "B" 0.5 micron elements:** All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO Class 2** for maximum particle size and concentration of solid contaminants, and **exceed Class 3** on maximum oil content (ppm / wt).⁵

Type C Filter Element Specifications

Efficiency

99.99998% when testing with 0.3 micron aerosol on dioctyl phylate (DOP) test according to Federal Standard 209B. Compatible with mineral and synthetic oils.

Residual Oil

0.01 ppm / wt (inlet temperature / pressure 70°F / 100 PSIG when analyzed using infra red spectrophotometry based on the Pneurop 6611 procedure.

Air Quality Class *

Conforms to ISO 8573, better than Class 1

Flow

Inside to outside

Filter Media

Pure borosilicate glass microfiber with a mean strand diameter of 0.5 micron and a voids volume of 96%. Contains no glues or resins.

Support Structure

Inner and outer 304 Stainless Steel support cylinders.

End Caps

Glass filled polyamide material

Initial Differential

Pressure Dry — 1.25 PSID

Initial Differential

Pressure Wet — 2.25 PSID

Flow Range — 5 to 4800 SCFM

Application

Install where highest quality air is required; typically instrumentation, process air, pneumatic gauging, paint spraying, etc.

* **"M" Series Coalescing Filters, with Type "C" 0.01 micron elements:** All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO Class 1** for maximum particle size and concentration of solid contaminants, and **exceed Class 1** on maximum oil content (ppm / wt).⁵

Type D Filter Element Specifications

Efficiency

Less than 0.003 ppm / wt maximum remaining oil content (inlet temperature / pressure of 70°F / 100 PSIG) when analyzed using infra red spectrophotometry based on the Pneurop 6611 procedure; removal of hydrocarbon vapors and odors.

Air Quality Class *

Conforms to ISO 8573, better than Class 1

Flow

Inside to outside

Filter Media

Snow storm filled activated carbon for optimum packing density and life.

Support Structure

Model M03 - M28: Clear plastic housing with molded plastic end cap. Integral outlet filter.

Model M30 - M45: Inner and outer 304 Stainless Steel support sleeve cylinders

End Caps

Glass filled polyamide material

Initial Differential

Pressure Dry — M30 - M31: 3 PSID
M32 - M45: 1 PSID

Flow Range — 5 to 4800 SCFM

Application

Installation after high efficiency coalescer for process air purification, odor removal, removal of trace vapors and for critical applications.

* **"M" Series Absorption Filters, with Type "D" activated carbon elements:** All Wilkerson Type "M" Absorption Filters with Type "D" activated carbon elements **exceed ISO Class 1** on maximum oil content (ppm / wt).⁵

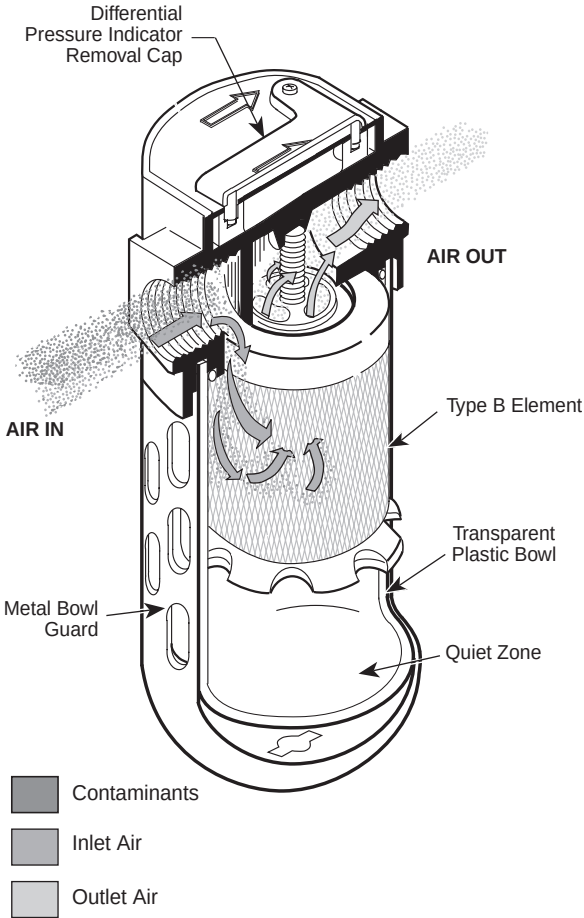
Afterfilters

For the removal of solid particles down to 0.5 micron.

The Afterfilter is designed for use in “dry” systems where it provides efficient removal of desiccant dust and other solid contaminants downstream of various types of desiccant air dryers. These solid contaminants, if not removed, can damage sensitive downstream instruments and critical air controls.

Operation

The inlet air is directed downward and outward in a circular pattern. This action mechanically separates a large amount of gross particles which fall to the bottom of the housing. The air then passes through the filter media bed where a significant number of smaller solid particles and other contaminants are trapped within the filter media.



AF Series Afterfilters, with Type “B” 0.5 micron elements: All Wilkerson Type “AF” Afterfilters with 0.5 micron elements **exceed ISO Class 2** for maximum particle size and concentration of solid contaminants, and **exceed Class 3** on maximum oil

ISO 8573.1 System Ratings		
ISO 8573.1		
System	Quality Class Rating	Applications
1.	3.7.4	Air Tools, Air Motors
2.	1.4.1	Automated Equipment, Robotics, Rough Paintings
3.	1.4.1	Injection Molding, CNC, Electronics
4.	1.2.1 or 1.1.1	Semi-Conductors, Instrumentation
5.	1.2.1 or 1.1.1	Food Processing, Hospital Grade, Breathing Air
Applying condensate management systems, dry air storage and flow controllers.		

ISO 8573.1 Quality Class			
Quality Class	Solid Contaminants (max. particle size in microns)	Max. Pressure Dew Point °F	Max. Oil Content (droplets, aerosols & vapor) ppm
1	0.1	-94	0.01
2	1	-40	0.1
3	5	-4	1
4	15	37.4	5
5	40	44.6	25
6	—	50	—
7	—	not specified	—

Filter Types

All filters and filter elements are suitable for use in either compressed air or nitrogen applications.

Wilkerson Types B, B1, and C filters are made of materials acceptable in processing of compressed air as defined by regulations of both the United States and Canadian Departments of Agriculture.

Type A General Purpose Filter

Specifications

Particle removal down to 5.0 microns. Separation of liquid water and aerosols > 95% at rated flows. Separation of bulk liquid only.

Purpose

For removal of solid contaminants and bulk liquids. The Type A can be used alone as a general purpose filter or as a pre-filter for Types B, B1 and C elements to extend their service life.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed** ISO Class 3 for maximum particle size and concentration of solid contaminants.⁵

Type AF Prime Efficiency Filter

Specifications

Solid particle removal down to 0.5 micron. Retention on DOP test > 99.97%.*² Designed for use in "dry" systems.

Purpose

For removal of desiccant dust and other solid contaminants downstream of Twin Tower or other desiccant air dryers.

"AF" Series Afterfilters, with Type "B" 0.5 micron elements: All Wilkerson Type "AF" Afterfilters with 0.5 micron elements **exceed** ISO Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (ppm / wt).⁵

Type B1 Prime Efficiency Coalescer

Specifications

Particle removal down to 1.0 micron. Maximum downstream remaining oil content 0.5 ppm / wt*¹. Retention on DOP test > 99.97%.*² "B1" Prime Efficiency Coalescing Filters meet ISO Class 2 for maximum particle size and exceeds Class 3 for maximum oil content (ppm / wt).⁵

Purpose

For removal of aerosols and solid particles. Is used in coalescing filter models M32 through M55. Can be used alone as a coalescing filter or as a pre-filter to the Type C elements to extend their service life. Usage proves most economical when preceded by a Type A filter.

Type B Prime Efficiency Coalescer

Specifications

Particle removal down to 0.5 micron. Maximum downstream remaining oil content 0.5 ppm / wt*¹. Retention on DOP test > 99.97%.*²

Purpose

For removal of aerosols and solid particles. Can be used alone as a coalescing filter or as a pre-filter for the Type C elements to extend their service life. Usage proves most economical when preceded by a Type A filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements exceed ISO Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm / wt).⁵

Type C Extremely High Efficiency Coalescer

Specifications

Particle removal down to 0.01 micron. Maximum downstream remaining oil content 0.01 ppm / wt*¹. Retention on DOP*² and Sodium Flame Test ₃ > 99.9999% (limit of measurability).

Purpose

For removal of extremely fine oil mists, oil aerosols and microscopic particles. The Type C is extremely efficient in the coalescing of remaining oil mists and oil aerosols as well as the retention of solid particles. It is recommended the Type C filter be installed downstream of a Type A and / or Type B or B1. This is very cost effective as it prevents build up of solid contaminants on the Type C element and extends service life.

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements exceed ISO Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm / wt).⁵

Type D Critical Application Adsorption Filter

Specifications

Activated carbon element for removal of oil vapor and associated odors whether petroleum or synthetic base. Maximum downstream remaining oil content 0.003 ppm / wt.⁵

Purpose

For elimination of oil vapor, oil associated odors whether petroleum or synthetic base. Type D elements utilize selected grades of activated carbon and rely on adsorption to remove oil associated vapor and odors. The Type D Filter should be used as the final filter for critical applications. It should always have a Type C Filter element installed upstream to remove oil aerosols and solids particles.

Note: The Type D element will not remove carbon dioxide, carbon monoxide, ethane, methane or other toxic gases.

"M" Series Adsorption Filters, with Type "D" activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" activated carbon elements exceed ISO Class 1 on maximum oil content (ppm / wt).⁵

Applications Notes

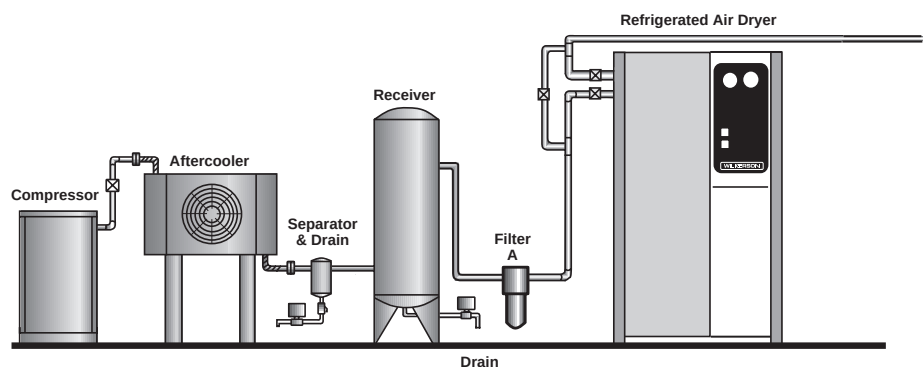
- 1) Based on a compressed air temperature of 7°F (21°C) at 100 PSIG (6.9 bar g) with a typical compressor lubricant using the Pneurop1 Recommended Test Method No. 6611 / 1984 PART 2. For further information contact Wilkerson. 1 mg/m³ is approximately 0.83 ppm / wt. (parts per million by weight).
- 2) Dioctyl phthalate test generates particles with mean diameter of between 0.1 and 0.3 micron (most difficult size to remove) based on USA Federal Standard 209B.
- 3) Sodium Flame Test using particles with a mean diameter of 0.65 micron based on British Standards Institute BS3928.
- 4) Filtration at a high temperature, although possible, increases the risk of gaseous contaminants condensing downstream. At temperatures above 122°F (50°C), the amount of water and oil vapor increases significantly and is more difficult and costly to remove.
- 5) All classes above refer to international standards organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

When Making Your Selection

- 1) Generally, install filters downstream of aftercoolers / separators and air receivers at the lowest temperature point and as close to the point of application as possible. This reduces the chance of additional water and oil vapor condensing after the filter.
- 2) Filters should not be installed downstream of quick opening valves and should be protected from possible reverse flow or other shock conditions.
- 3) It may be necessary to install a combination of mainline filtration near the compressor installation before entry to the main air distribution system as well as installing terminal filtration at the critical application points. Remember, especially in existing installations, the contamination already in the pipe system downstream of the filters will take a long time to disappear and probably never will completely.
- 4) Purge all lines leading from the filters to the final application to be protected.
- 5) Install filters in a vertical position ensuring that there is sufficient room below the filters to facilitate element change.
- 6) Provide a facility to drain away collected liquids from the filter drains via properly sized tubing, taking care there are no restrictions in the drain line.
- 7) Install Wilkerson differential pressure gauge or pop-up indicator to monitor the pressure drop across the filters. This will provide an easy way of visually monitoring the filter element condition, indicating when to replace the element. If you have a problem on filter selection or installation, please contact your local Wilkerson stocking distributor. Wilkerson and their representatives will be pleased to help you in selecting the proper installation for your application requirements.
- 8) For piping convenience and to minimize air system disruptions, we recommend piping the system with by-pass circuits and isolation valves.

General Purpose Protection

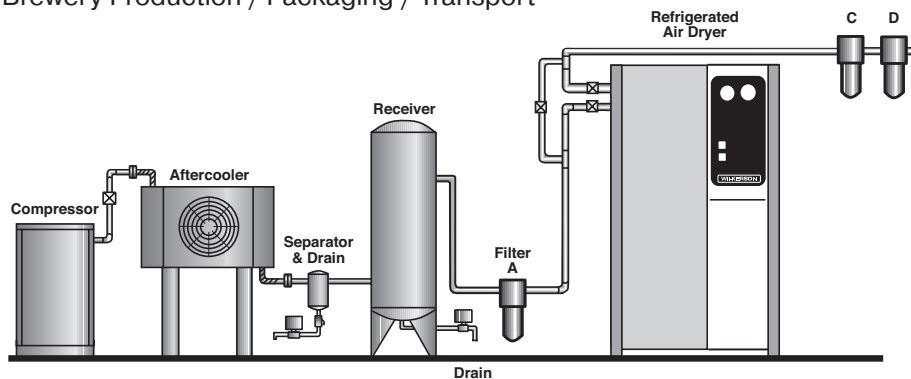
- General Compressed Air System Protection
- Liquid and Solid - Bulk Contamination Removal
- Particle Removal in "Dry" Systems
- Large Pneumatic Tools
- Shot-blasting Air
- Low Cost Automation—cylinders and valves
- Pre-Filtration for Refrigeration Air Dryers
- Pre-Filtration to High Efficiency Dryers
- Pre-Filtration to Adsorption Air Dryers in "Oil-Free" Systems
- Pre-Filtration to Air Sterilization Filters in "Oil-Free" Systems
- High Speed and / or Miniature Pneumatic Tools
- Air Gauging
- Air Conveying
- Air Motors
- Pipeline Purging
- Pre-Filtration to Adsorption Air Dryers in Oil Contaminated Systems
- Pre-Filtration to Air Sterilization Filters in Oil Contaminated Systems



Critical Applications — Clean and “Oil-Free”

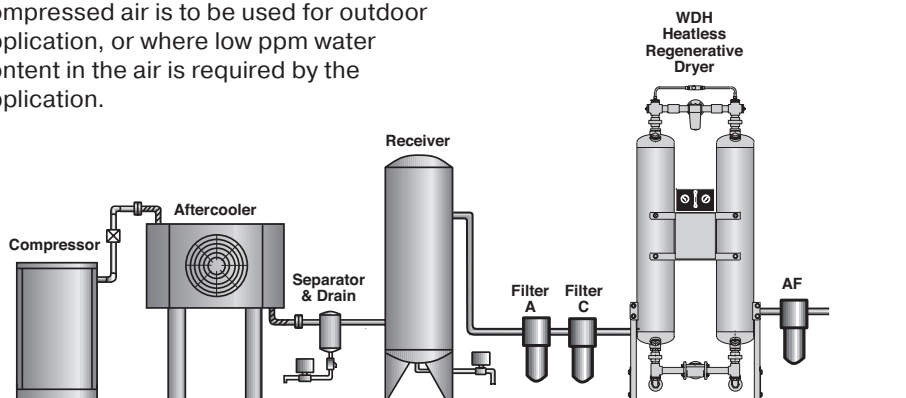
Where dew point is not required to be less than 36-40°F (2.2-4.4°C). Ambient temperature should not be below 45°F (7.2°C). For example, interior of factories.

- Highest Quality - Clean, Oil and Odor Free Air
- Blow Molding of Plastic e.g. P.E.T. Bottles
- Film Processing
- Critical Instrumentation
- Advanced Pneumatics
- Air-Blast Circuit Breakers
- Decompression Chambers
- Cosmetic Production
- Foodstuffs Production / Packaging
- Pharmaceutical Production
- Dairy Production / Packaging / Transport
- Brewery Production / Packaging / Transport
- Robotics
- Air Logic
- Instrumentation
- Air Bearings
- Spray Painting
- Temperature Control Systems



Extremely Low Dew Point System

Where dew point must be below 32°F (0°C). For example, indoor factory installation of dryer, but where compressed air is to be used for outdoor application, or where low ppm water content in the air is required by the application.



When Making Your Selection

Always try to obtain as much information as possible including flow rates, inlet pressure, temperature and pipe size.

Select filtration air quality required to the application to be protected. Remember, it is better to over-specify than not provide enough protection.

Select size of filters by flow rate and inlet pressure at the point of filtration. Also keep in mind pressure drop, if this is critical it may be advisable to oversize the filters. Generally, for operating costs, it is best never to undersize filters. The higher pressure drop caused by undersizing actually increases system operating cost.

Be careful to consider working pressure drops. Although all filters start dry, in time they become wetted with liquid (a normal condition) and this increases pressure drop. Select filters for the highest flow rate and lowest working pressure they will operate under.

Check the pipe size of the installation. If possible, match pipe sizes. This may involve increasing the size of the filter. Never reduce the pipe size of the installation to match the filter. The restriction caused by this is expensive in terms of pressure drop and operating costs and is ongoing. Increasing the size of the filter on the other hand reduces pressure drop and increases the time between element changes. This more than offsets the initial higher costs.

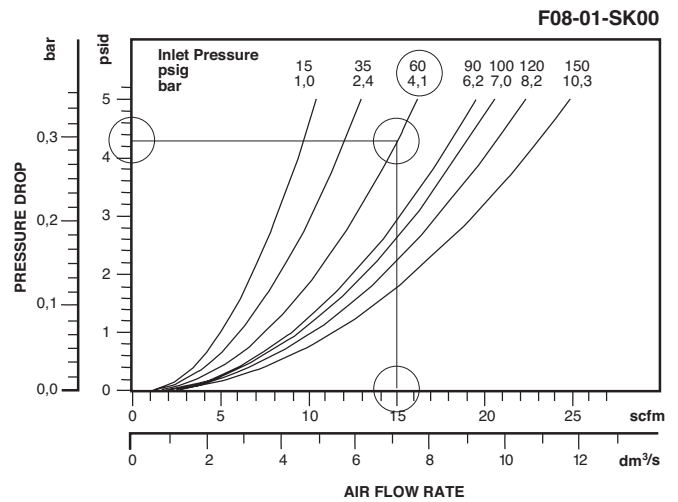
How You Read Flow Charts

Using Filter Graphs

- 1) From the graph select one of the inlet pressure curves to be used. 35 PSIG, 60 PSIG, etc.
- 2) Decide upon the air flow rate requirement for this application. (Refer to the horizontal air flow rate scale located at the bottom of the graph.)
- 3) To find the initial pressure drop draw a vertical line from the flow rate selected to a point where it crosses the inlet pressure curve. From this intersection draw a horizontal line to where it intersects the vertical pressure drop scale.

EXAMPLE:

At 15 SCFM flow rate and 60 PSIG inlet pressure, pressure drop is about 4.3 PSID.



Using Regulator Graphs

NOTE: Regulator graphs are based upon an inlet pressure of 100 PSIG.

Maximum flow capacity is measured at a point that is 75% of the initial secondary pressure setting. * (NFPA)

EXAMPLE:

Inlet Pressure = 100 PSIG,

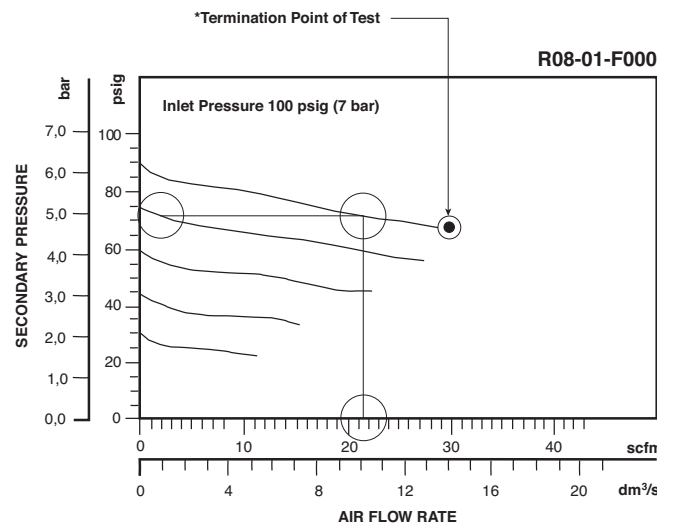
Secondary Pressure @ 0 SCFM = 90 PSIG,

Secondary Pressure @ 21.5 SCFM = 75 PSIG,

Pressure Drop @ 21.5 SCFM = 15 PSID.

- 1) Using a graph selected by product family and pipe size pick the secondary pressure curve that fits
- 2) Determine the air flow rate required from the air flow rate scale located at the bottom of the graph.
- 3) To find the pressure drop for this regulator draw a vertical line from the air flow rate selected to a point where it crosses the secondary pressure curve. From this intersection draw a horizontal line to where it intersects the vertical secondary pressure line. This is the secondary pressure at the flow rate selected to determine full pressure drop. Subtract this pressure from the original secondary pressure used.

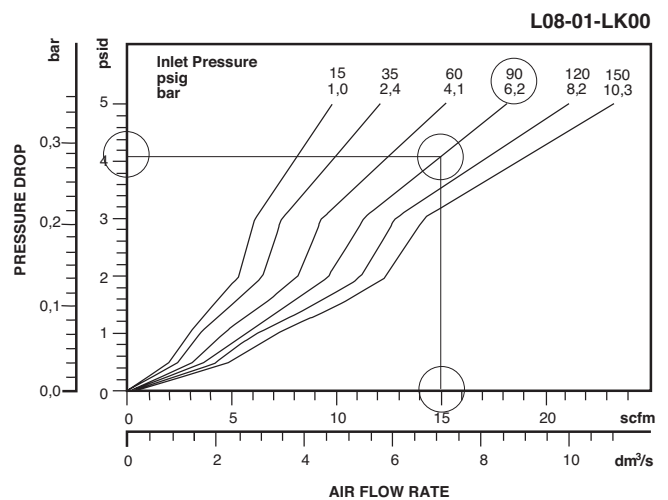
The Difference = Pressure Drop



Using Lubricator Graphs

- 1) From the graph select one of the inlet pressure curves to be used. 35 PSIG, 60 PSIG, etc.
- 2) Decide the air flow rate requirement for this application. (Refer to horizontal air flow rate scale located at the bottom of the graph.)
- 3) To determine pressure drop draw a vertical line from the flow rate selected to the point where it crosses the inlet pressure curve used. From this intersection draw a horizontal line to where it intersects the vertical pressure drop scale.

NOTE: Pressure drop value should not be less than 0.8 PSID.



Regulators

General Purpose

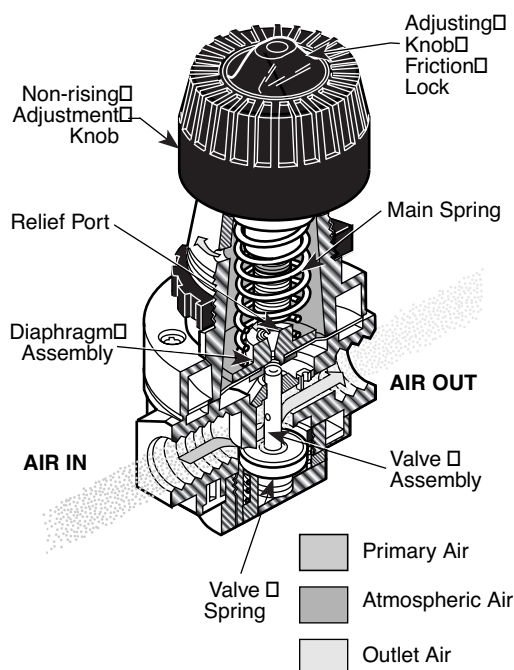
Used to provide a convenient and low cost method to reduce a supplied air pressure to a desired outlet pressure and transform a fluctuating air supply to a relatively constant reduced air pressure within the operating range of the regulator.

This type of regulator is generally used in a wide variety of applications where reduced pressure is highly desirable for energy conservation, safety requirements, air circuit control and air instrumentation.

Operation

Turning the adjusting knob clockwise forces the main spring downward onto the flexible diaphragm which presses down onto the valve stem. The diaphragm and valve stem move downward forcing the balanced valve off its seat, which allows air to flow past the valve to the outlet side of the regulator and downstream to the air system. A precisely positioned aspirator tube communicates secondary pressure to the diaphragm resulting in instant compensation in order to maintain the desired secondary set pressure.

The diaphragm, valve stem and valve move upward, compressing the regulating main spring. Upward movement stops when the spring force acting on the diaphragm balances the pressure force acting below the diaphragm. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



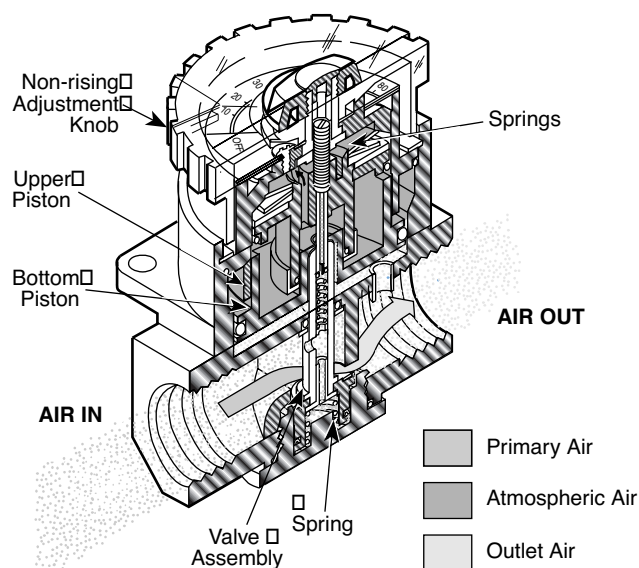
Dial-Air™ Pilot

The Dial-Air™ Pilot is a constant bleed, piston operated regulator. The pilot controlled pressure reducing valve provides exceptionally high air flow with steady pressure control and minimal secondary pressure drop. The non-rising adjustment knob provides quick selection of the desired secondary pressure in less than one full turn. The adjustment knob also can serve as the pressure indicator thereby eliminating the need for a pressure gauge.

This regulator is specifically designed for applications requiring more accurate air circuit control, high air flow capacity with flat performance curves and quick regulator adjustment. The regulator can be used as a conventional regulator for standard air circuits or as a pilot regulator to provide pressure to the control chamber of a pilot operated (slave) regulator.

Operation

To set the regulator, turn the large dial adjustment knob to the desired secondary set pressure. This opens the pilot valve seat allowing air flow into the control chamber which forces the lower piston downward against the relief seat and opens the main valve. At the same time, the air in the control chamber forces the upper piston upward against Belleville springs which closes the pilot valve seat when the set pressure is attained. Secondary pressure in the chamber is now balanced against the control pressure through the lower piston. If demand flow increases, the constant control pressure will force the lower piston and the main valve further downward, and allow more flow downstream. A higher than desired secondary pressure will force the lower piston upward, closing the main valve seat and opening the main relief valve seat thereby allowing air to relieve to the atmosphere. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



Regulators

Precision Regulator

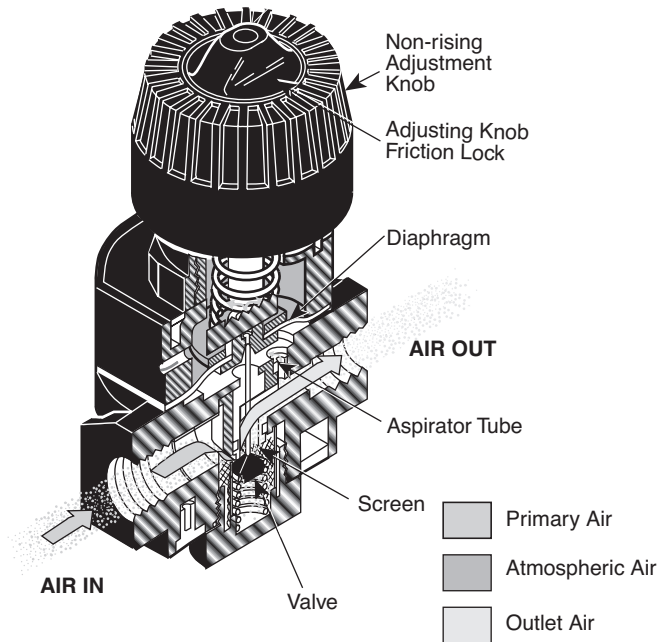
For use in applications that require reliable performance and accurate pressure control. This type of regulator is generally used for material handling systems, flow and temperature controllers, critical air control circuits, medical and scientific test equipment, and valve positioners.

Operation

Set the desired secondary pressure by turning the adjustment knob clockwise. This action increases the regulating spring force against the top of the diaphragm disc. When the spring force above exceeds the air pressure beneath the diaphragm, it is transmitted by the valve stem and opens the valve. Airflow through the regulator now occurs.

A precisely designed and positioned aspirator tube constantly transmits the secondary pressure to the under side of the diaphragm so that during flow conditions any pressure loss can be quickly compensated for. When flow is no longer required, the outlet pressure increases slightly, allowing the diaphragm to rise, the valve to close, and set pressure to be maintained.

On self-relieving models, if outlet pressure should increase above the set pressure, the diaphragm will rise therefore opening the relief seal between the diaphragm and the valve. The excess outlet pressure is then vented through the diaphragm orifice into the bonnet and subsequently to the atmosphere through an orifice in the bonnet. For best performance, regulated pressure should always be set by increasing the pressure to the desired setting.



Lubricators

EconOmist™

The EconOmist™ lubricators inject an oil aerosol into the flowing air stream to automatically provide the proper amount of internal lubrication to air operated tools or other pneumatic devices.

Operation

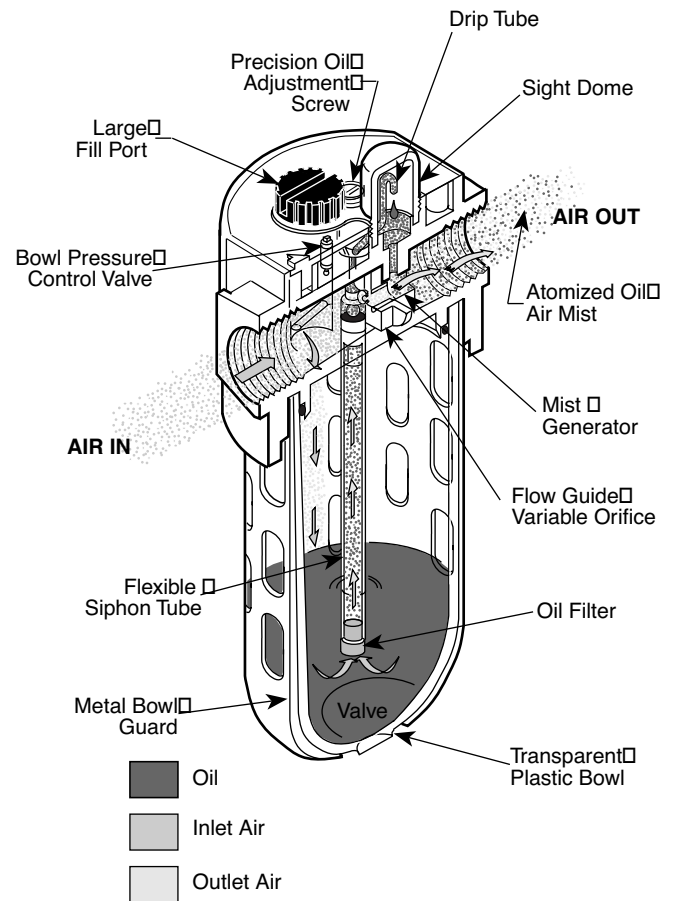
For proper operation there must be line pressure in the reservoir bowl. As the air flows through the lubricator, some of the incoming air passes through the bowl pressure control valve that then pressurizes the bowl pushing oil upward through the siphon tube. Most of the air flow passes through the self-adjusting Flow-Guide® flow sensor in the lubricator throat creating a slight pressure drop that is proportional to the rate of air flow. The pressure drop is sensed by the sight dome and across the adjustment needle valve allowing oil to flow upward through the siphon tube into the sight dome where it drips into a nozzle passage and then into the lubricator throat.

The precise amount of oil to be delivered to the air stream is determined by the oil adjusting needle valve that sets the exact drip rate.

The oil drops are atomized by the high velocity air flowing through the lubricator. All of the drops visible in the sight dome are delivered downstream to the air devices.

The self-adjusting flow sensor automatically maintains a constant oil-to-air ratio by opening and closing in response to a wide range of changing air flows. A check valve keeps the siphon tube full of oil during periods of no flow and prevents oil carry-over due to the possibility of reverse flow.

The pressurizing valve controls the rate of bowl pressurization and allows depressurization for refilling the unit without shutting off the supply air. When the oil fill plug is loosened, a spring loaded, normally closed 2-way valve closes, allowing the air pressure in the bowl to be gradually reduced. When the fill plug is replaced, the bowl repressurizes through the pressure control valve. Upon initial use, or if unit has been run dry, open oil adjustment wide open until no air bubbles are visible in sight dome. Then, reset oil feed adjustment to desired setting.



Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Lubricators

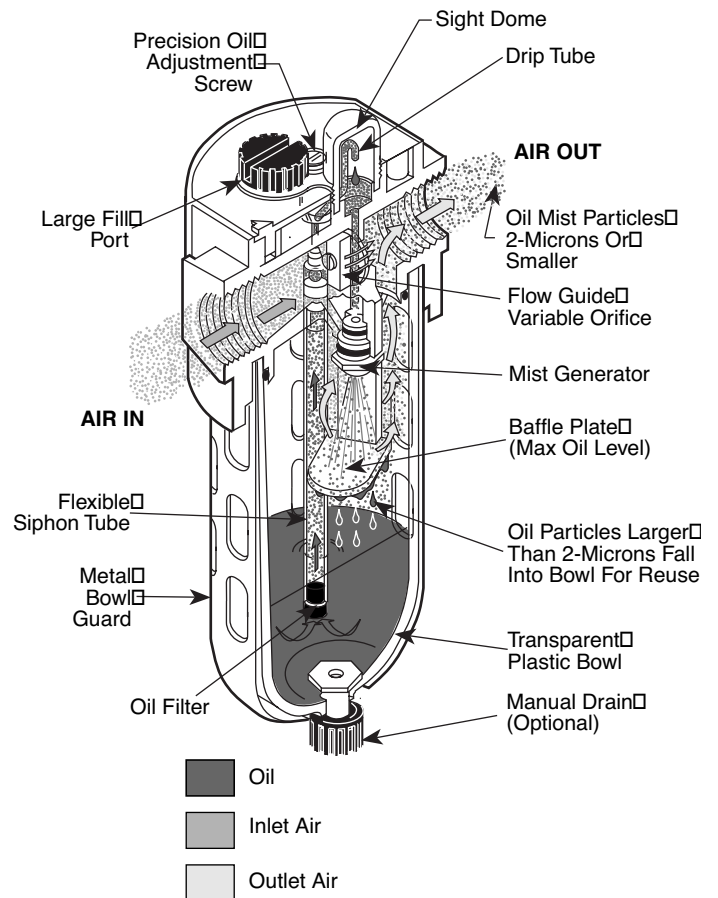
AtoMist™

The AtoMist™ lubricators inject a micro-mist of oil into the flowing air stream to automatically provide the correct amount of internal lubrication for air tools and other pneumatic devices. This type of lubricator can be precisely adjusted to a very low oil flow rate because only a portion of the oil drops seen in the sight dome goes downstream. The lubricator should be used where only a very minute amount of lubricant is desirable or where it is necessary for the oil to remain in suspension in the air stream for long distances.

Lubricating oil is injected into the mist generator by allowing a portion of the incoming air to bypass the mist generator and enter the bowl, where it forces the oil up the siphon tube. The oil then passes the adjustment screw, which meters the amount of oil that can flow to the drip tube and down into the mist generator. The oil droplets and air are then sprayed onto the generator baffle where the oil drops are atomized. The larger oil particles are baffled out and fall into the bowl to be reused.

The very fine oil aerosol particles remain airborne and are swept into the lubricator outlet by the airflow, where they are carried downstream. Only a small amount of the oil drops visible in the sight dome are delivered downstream. Generally, micro-mist lubricators convert about 3% of the liquid oil “atomized” particles 2 microns or smaller in size.

Once the oil-to-air density ratio has been established and the drip rate adjustment set, the proportional control of the patented Flow-Guide® variable orifice permits varying volumes of air to pass through the lubricator while maintaining the oil-to-air ratio balance. AtoMist™ lubricators cannot be filled manually without turning off and venting the air pressure from the bowl. The height of the oil level in the bowl is critical and cannot be allowed higher than the baffle plate.

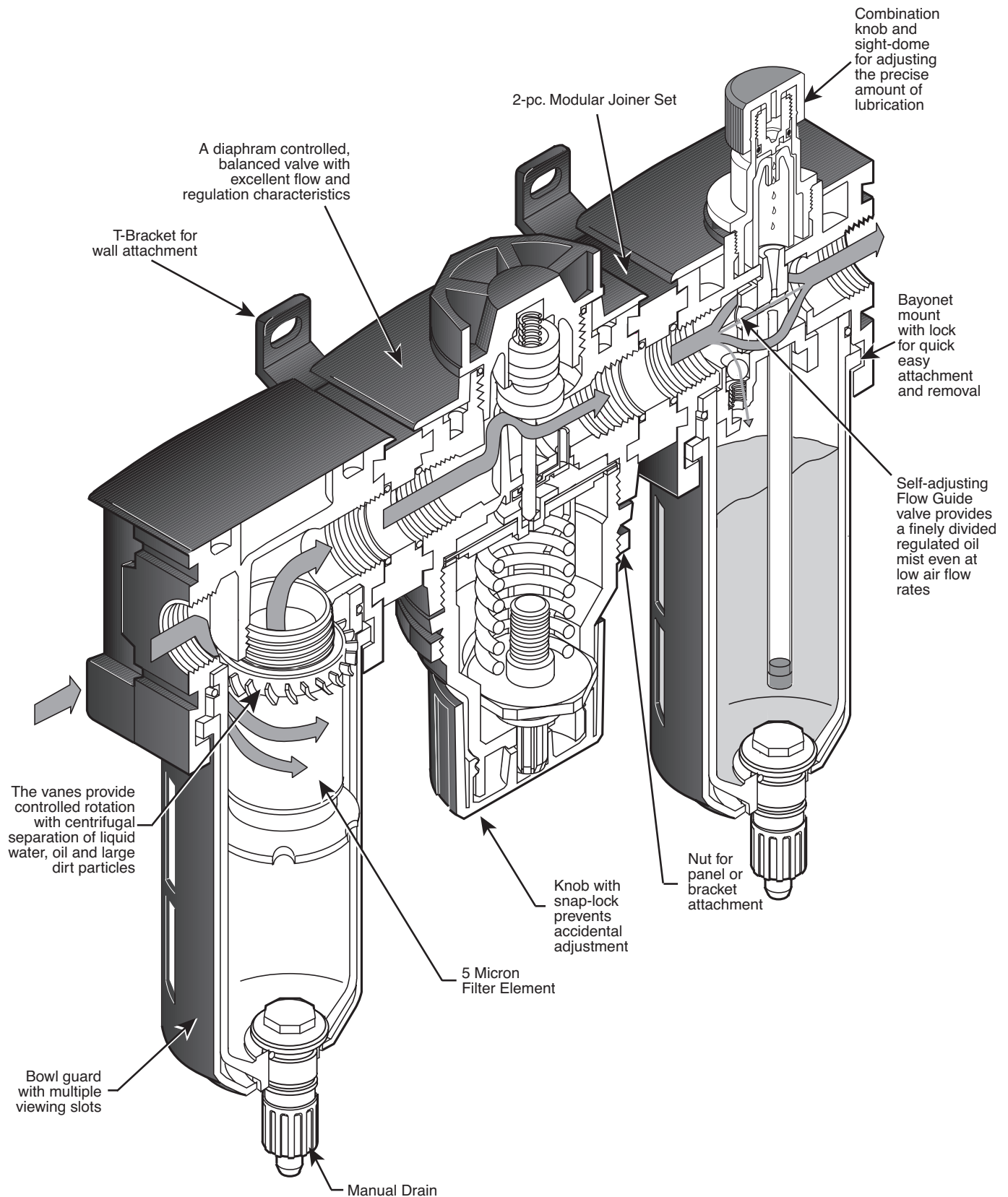


Suggested Lubricant

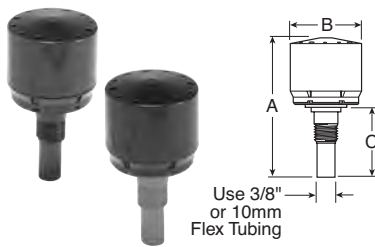
Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

18 / 28 Series FRL Modular Combination

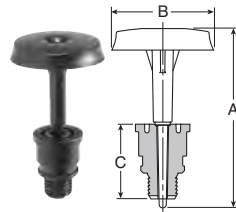


Automatic Mechanical Drains



Automatic Drain

(Nitrile and Fluorocarbon Versions)
Operating Range
15 to 250 PSIG (1 to 17 bar)



Automatic Piston Drain

(08 Series as shown)
Works with cyclical
operation of air system.



Wilkerson automatic mechanical drains are designed to remove liquid oil and water contaminants from compressed air systems automatically. They eliminate the necessity of someone having to drain accumulated liquids from filters, separators, receivers, etc. on a daily basis. Instead, only regular, periodic maintenance and cleaning is needed. Typically, once a month the drain should be removed from the housing and cleaned in warm, soapy water (no solvents).

Operation

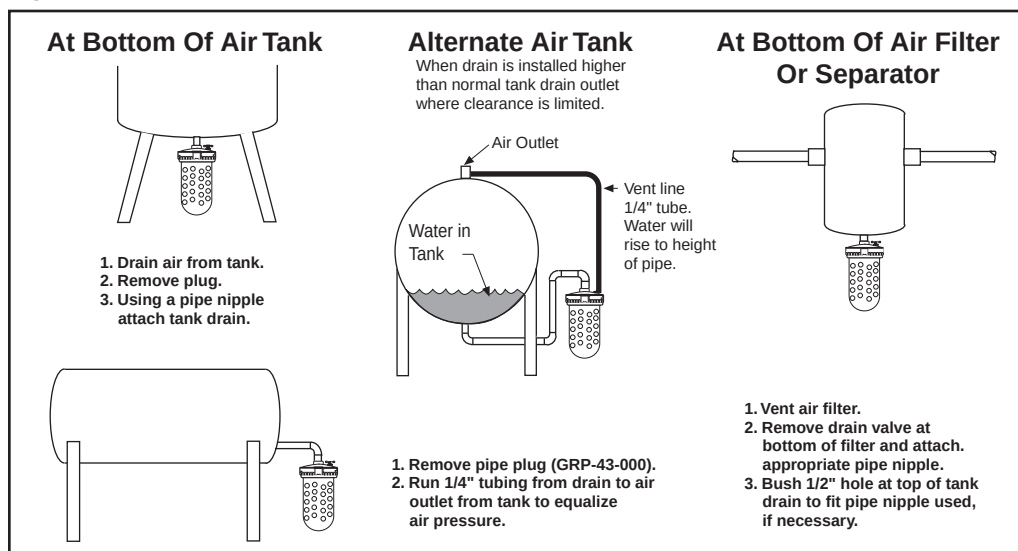
Automatic Mechanical Drains

Liquid contaminants collected in the bowl cause the float mechanism to rise. When the liquid reaches a specific level, the float triggers a mechanism which pilots system pressure against a large-area piston, driving the piston down. The piston opens the drain orifice, causing the system pressure to evacuate the liquid contaminants. As the liquid level falls, the pilot valve closes, system pressure against the piston exhausts to atmosphere, and the drain valve snaps closed, ready to repeat the cycle. At least once a month, the drain should be removed from service, and cleaned with warm, soapy water to ensure continued reliable operation.

Automatic Piston Drains (used in F03, F08, M03, M08, B03 and B08 filter units)

Air enters bowl, and pressure equalizes above and below piston. The piston has differential areas above and below, with the top area being larger. This gives a slight downward force, holding the drain orifice closed, as long as air pressure is constant. System fluctuations, such as an increased demand for air downstream, causes the pressure above the piston to drop slightly. Now the trapped air below the piston is a higher pressure, and thus pushes the piston up, opening the orifice, and causing the system pressure to expel to atmosphere any accumulated liquids. The sudden drop of pressure below the piston now causes the system pressure to quickly push the piston down, closing the drain, and resetting the piston for the next cycle. It is important to note that this type of drain requires periodic fluctuations in system pressure in order to operate; in a system where the pressure is constant, the drain piston will never cycle.

Typical Installations



AIR PREPARATION UNITS

Symbol	Description
	FILTER / SEPARATOR with manual drain
	FILTER / SEPARATOR with automatic drain
	OIL REMOVAL FILTER
	AUTOMATIC DRAIN
	LUBRICATOR less drain
	LUBRICATOR with manual drain
	LUBRICATOR with automatic filling
	AIR LINE PRESSURE REGULATOR adjustable, relieving
	AIR LINE PRESSURE REGULATOR pilot controlled, relieving
	FILTER / REGULATOR (piggyback) Manual Drain Relieving (With Gauge)
	FILTER / REGULATOR (piggyback) Auto Drain Relieving
	AIR LINE COMBO F-R-L simplified

PNEUMATIC VALVES

Symbol	Description
	CHECK
	FLOW CONTROL
	RELIEF VALVE

PNEUMATIC VALVES (Cont'd)

Symbol	Description
	2-POSITION 2-WAY
	2-POSITION 3-WAY
	2-POSITION 4-WAY
	2-POSITION, 4-WAY 5-PORTED
	3-POSITION, 4-WAY, APB ports closed, center pos.
	3-POSITION, 4-WAY, CE 5-PORTED cylinder ports open to exhaust in center position
	3-POSITION, 4-WAY, PC 5-PORTED pressure ports open to exhaust in center position
	QUICK EXHAUST
	SHUTTLE

VALVE ACTUATORS

Symbol	Description
	MANUAL general symbol
	PUSH BUTTON
	LEVER
	PEDAL OR TREADLE
	MECHANICAL cam, toggle, etc.
	SPRING
	DETENT line indicates which detent is in use
	PIEZO

VALVE ACTUATORS (Cont'd)

Symbol	Description
	SOLENOID
	INTERNAL PILOT SUPPLY
	REMOTE PILOT SUPPLY
	AND / OR COMPOSITE solenoid and pilot or manual override
	AND / OR COMPOSITE solenoid and pilot or manual override and pilot

LINE AND FUNCTIONS

Symbol	Description
	solid line - MAIN LINE
	dashed line - PILOT LINE
	dotted line - EXHAUST OR DRAIN LINE
	center line - ENCLOSURE OUTLINE
	Lines CROSSING (90° intersection not necessary)
	Lines JOINING (90° intersection not necessary)
	Lines JOINING
	FLOW DIRECTION hydraulic medium
	FLOW DIRECTION gaseous medium
	ENERGY SOURCE
	LINE WITH FIXED RESTRICTION
	LINE WITH ADJUSTABLE RESTRICTION
	FLEXIBLE LINE
	PLUGGED PORT, TEST STATION, POWER TAKE-OFF
	QUICK DISCONNECT WITHOUT CHECKS
	QUICK DISCONNECT WITH CHECKS
	QUICK DISCONNECT WITH ONE CHECK

Saving Money and Space by Sizing Your Valves Properly

You can "plug" your requirements into the following simple formula, and determine the Cv needed to do the job. By not oversizing, you'll save space and money, and you'll ensure the valve you select will do the job.

Converting the Job Requirements Into Cv
(Capacity Co-efficient).

$$C_v = \frac{\text{Cylinder Area (Sq. In.)} \times \text{Stroke (In.)} \times \text{Compression Factor (Table 2)} \times \text{"A" (Table 2)}}{\text{(See Table 1)} \times \text{Stroke Time (sec.)} \times 28.8}$$

Let's work through an example:

We want to extend a 3-1/4" bore cylinder which has a 12" stroke in one second, and we have a supply pressure of 80 PSI to do the work. Here's what we know:

Cylinder Area for a 3-1/4" Bore, from Table 18.30 sq. in.
Cylinder Stroke 12 in.
Stroke Time Required in Seconds..... 1 sec.
Compression Factor at 80 PSI, from Table 2..... 6.4
"A" Constant for 80 PSI, from Table 2048
Substituting in the formula, we have:

$$C_v = \frac{8.30 \times 12 \times 6.4 \times .048}{1 \times 28.8} = 1.06$$

Any valve, therefore, which has a Cv of *at least* 1.06, will extend our cylinder the specified distance in the required time.

Choosing the Valve "Series"

Your next step is to choose a basic valve design to do the job. For a quick guide to valve designs, see Table 3.

Having selected the basic valve design, consult the Capacity Co-efficient (Cv) tables which describe the individual valve capacities.

Selecting the Valve Model, Options and Accessories

Having determined Cv, series, port size, flow-path configuration (pre-determined by circuit design), and actuation method, you're ready to choose the *exact* valve model number.

Table 1

Effective Square-Inch Areas for Standard-Bore-Size Cylinders

Bore Size	Cylinder Area (Sq. In.)	Bore Size	Cylinder Area (Sq. In.)
3/4"	.44	4"	12.57
1"	.79	4-1/2"	15.90
1-1/8"	.99	5"	19.64
1-1/4"	1.23	6"	28.27
1-1/2"	1.77	7"	38.48
1-3/4"	2.41	8"	50.27
2"	3.14	10"	78.54
2-1/2"	4.91	12"	113.10
3-1/4"	8.30	14"	153.94
3-5/8"	10.32	—	—

Table 2

Compression Factors and "A" Constants

Inlet Pressure (PSIG)	Compression Factor	"A" Constants for Various Pressure Drop*		
		2 PSI ΔP	5 PSI ΔP	10 PSI ΔP
10	1.6	.152	.103	—
20	2.3	.126	.084	.065
30	3.0	.111	.073	.055
40	3.7	.100	.065	.048
50	4.4	.091	.059	.044
60	5.1	.085	.055	.040
70	5.7	.079	.051	.037
80	6.4	.075	.048	.035
90	7.1	.071	.046	.033
100	7.8	.068	.044	.032
110	8.5	.065	.042	.030
120	9.2	.063	.040	.029
130	9.9	.061	.039	.028
140	10.6	.058	.037	.027
150	11.2	.057	.036	.026
160	11.9	.055	.035	.025
170	12.6	.053	.034	.024
180	13.3	.052	.033	.024
190	14.0	.051	.032	.023
200	14.7	.050	.032	.023

Note: Use "A" constant at 5 PSI rP for most applications. On very critical applications, use "A" at 2 PSI rP. You will find in many cases, a 10 PSI rP is not detrimental, and can save money and mounting space.

* Tabulated values are the solution of $\frac{1}{22.48} \sqrt{\frac{GT}{(P_1 - P_2) P_2}}$ where T is for 68°F and G = 1 for Air.

Table 3

Characteristics of the Major Valve Designs

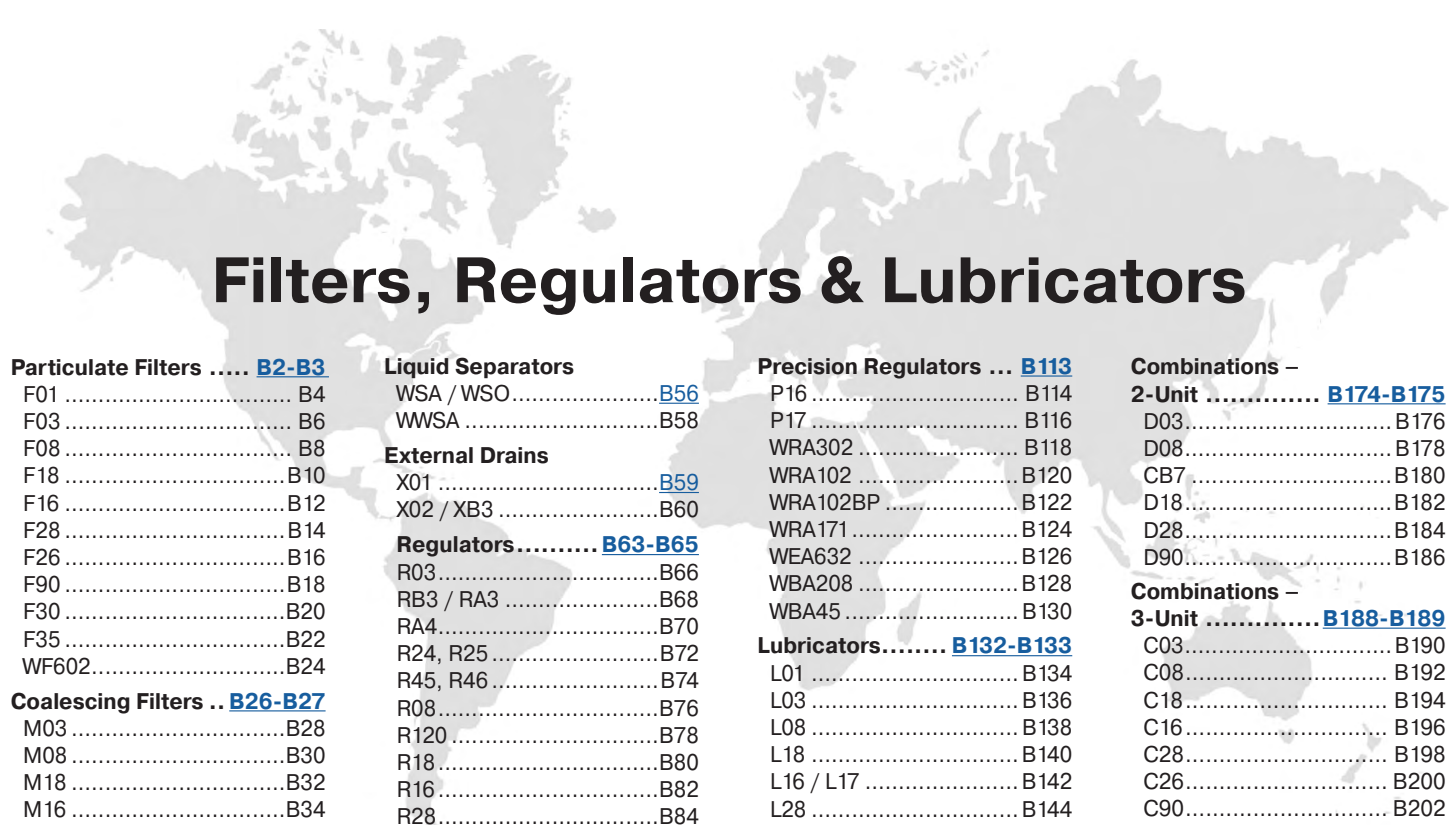
A. Poppet 3-Way and 4-Way	- High flow capacities - Minimum lubrication requirements - Fast response - Self-cleaning poppet seats - Pressures of 15 to 150 PSIG (modifications for vacuum to 250 PSIG)
B. Spool Valves (WCS) 3-Way and 4-Way	- Low friction - Lower operating pressures - Fast response - Less wear - Long Cycle Life - Under pressure, radial expansion of the seal occurs to maintain sealing contact with the valve bore - Non-Lube Service - No lubrication required for continuous valve shifting - Bi-Directional Spool Seals - Common spool used for any pressure, including vacuum
C. Packed Bore 4-Way	- Wide range of flow capacities - Wide range of flow-path configurations - Pilot-operated models available - Pressures of vacuum to 150 PSIG
D. Rotary Or Reciprocating Disc 4-Way, manually operated	- Inexpensive - Versatility in manual actuation

Cv – Capacity Co-efficients (sometimes called Flow Factors). Each flow path through the valve has its own Cv value. All Cv ratings for each valve cataloged on this page are listed on the front side of this sheet.

$$C_v = \frac{Q}{22.48} \sqrt{\frac{GT}{(P_1 - P_2) P_2}}$$

Q = Flow in Standard Cubic Feet per minute (14.7 PSIA at 60°F)
 P₁ = Inlet Absolute Pressure (gauge pressure + 14.7)
 P₂ = Outlet Absolute Pressure (gauge pressure + 14.7)
 Note: P₂ must be greater than .53 x P₁
 G = Specific Gravity of flowing medium (Air, G = 1)
 T = Absolute Temperature of Air (460 + °F)

Cv = Q x "A" (Table 2)



Filters, Regulators & Lubricators

Particulate Filters [B2-B3](#)

F01	B4
F03	B6
F08	B8
F18	B10
F16	B12
F28	B14
F26	B16
F90	B18
F30	B20
F35	B22
WF602.....	B24

Coalescing Filters .. [B26-B27](#)

M03	B28
M08	B30
M18	B32
M16	B34
M28	B36
M26	B38
M21	B40
M90	B42
M30	B44
M35	B46

Afterfilters [B48](#)

A18	B49
A28	B50

Exhaust Mufflers

F23	B52
F33	B53

Exhaust Silencer

XMC.....	B54
----------	---------------------

Liquid Separators

WSA / WSO.....	B56
WWSA	B58

External Drains

X01	B59
X02 / XB3	B60

Regulators..... [B63-B65](#)

R03	B66
RB3 / RA3	B68
RA4	B70
R24, R25	B72
R45, R46	B74
R08	B76
R120	B78
R18	B80
R16	B82
R28	B84
R26	B86
R90	B88
R30	B92
R40	B94

Common P1 Regulators..[B97](#)

R09	B98
R19	B100

Dial-Air™**Regulators [B103](#)**

R11	B104
R21	B106
R31	B108
R41	B110

Precision Regulators ... [B113](#)

P16	B114
P17	B116
WRA302	B118
WRA102	B120
WRA102BP	B122
WRA171	B124
WEA632	B126
WBA208	B128
WBA45	B130

Lubricators..... [B132-B133](#)

L01	B134
L03	B136
L08	B138
L18	B140
L16 / L17	B142
L28	B144
L26 / L27	B146
L90	B148
L30	B150
L40	B152

Filter/Regulators [B155-B157](#)

B03	B158
BB3 / BA3	B160
B08	B162
B18	B164
CB6	B166
PC6	B168
B28	B170
B90	B172

Combinations –**2-Unit [B174-B175](#)**

D03	B176
D08	B178
CB7	B180
D18	B182
D28	B184
D90	B186

Combinations –**3-Unit [B188-B189](#)**

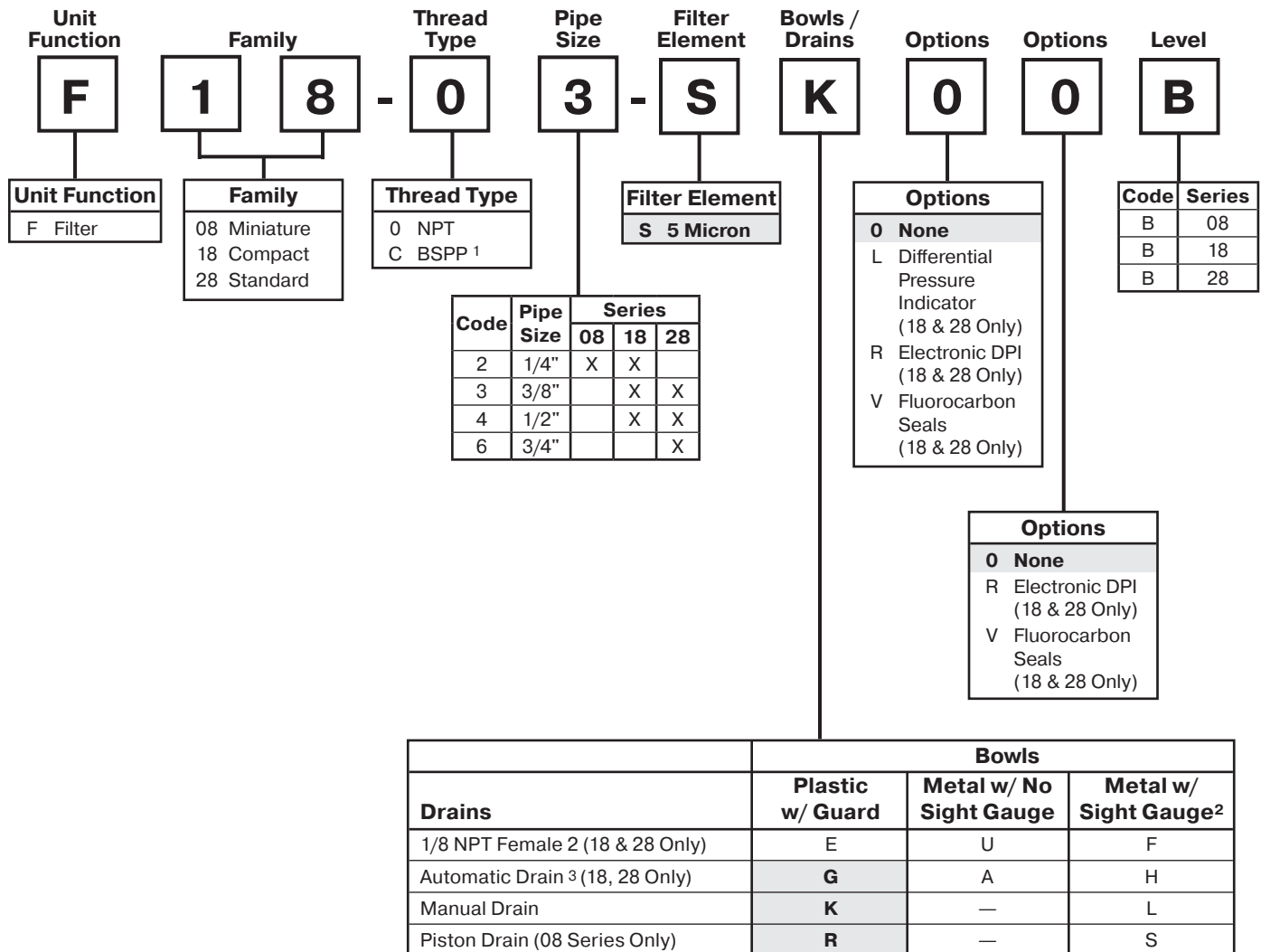
C03	B190
C08	B192
C18	B194
C16	B196
C28	B198
C26	B200
C90	B202

Discontinued Product Series**Kits [B204](#)**

(F34, F43, M31, M32, M43, M45)

Particulate Filter Numbering System

 = "Most Popular"



¹ ISO, R228 (G Series)

² F08 Filter has an all Metal Bowl (no sight gauge)

³ Operating range 15 to 250 PSIG (1 to 17 bar)

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

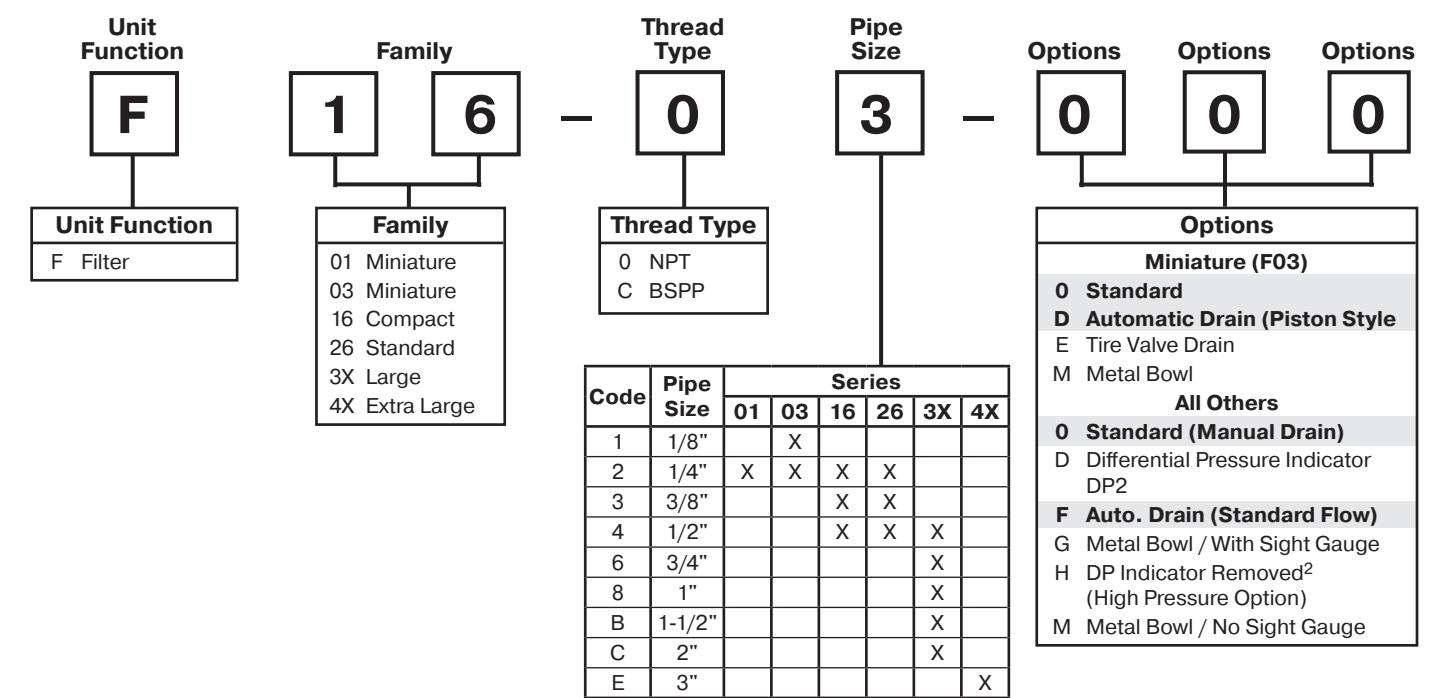
NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

F 1 8 - 0 3 - S K 0 0 B

Particulate Filter Numbering System

= “Most Popular”



¹ Ports on some units are BSPP-G, others are BSPT-Rc.
Consult specific model page for specifications.

² Models F35 & F43.

“F” Series Filters, Type “A” 5 micron elements:

All Wilkerson Type “A” micron elements meet or exceed ISO Class 3 for maximum particle size and concentration of solid contaminants.

If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

NOTE: 000 in position 6, 7, and 8 signifies standard product.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Particulate Filter

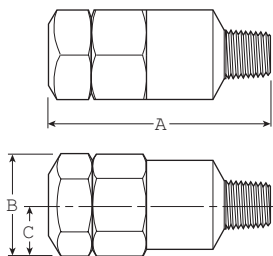
F01



F01-02-000

In-Line Filter

This small, aluminum in-line filter is designed to provide protection for portable pneumatic hand tools. It weighs only 2 ounces with a throw-away filter element rated at 5 microns. Either port may be used as the inlet port. Flow is 17 SCFM (8 dm³/s) at 90 PSIG (6.2 bar) inlet pressure with 5 PSIG (0.3 bar) pressure drop.



Dimensions

Models	Inches (mm)	A	B	C
Standard Unit F01-02-000		2.50 (63.5)	1.00 (25)	.51 (13)

 = "Most Popular"

Specifications

Flow Capacity*	17.0 SCFM (8 dm³/s)
Maximum Supply Pressure	200 PSIG (13.8 bar)
Operating Temperature	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPT-Rc 1/4
Standard Filtration	5 Micron
Weight	.13 lb. (.06 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

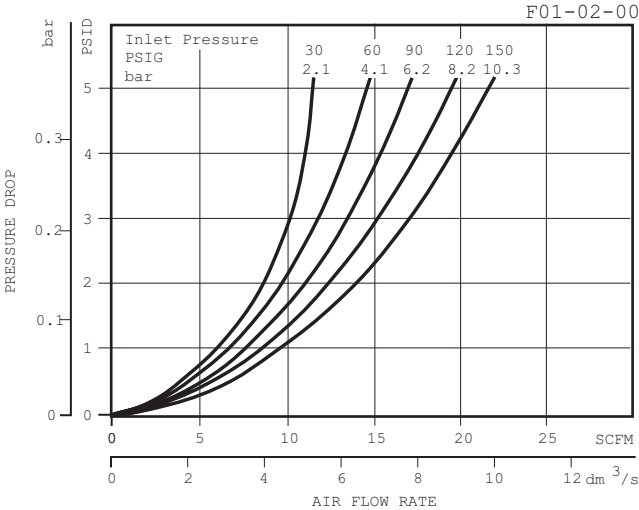
Materials of Construction

Baffle	Aluminum
Body	Aluminum
Filter Element	Sintered Polyethylene
Seals	Nitrile

= “Most Popular”

Replacement Element Kits

Type “A”, 5 Micron..... FRP-95-199



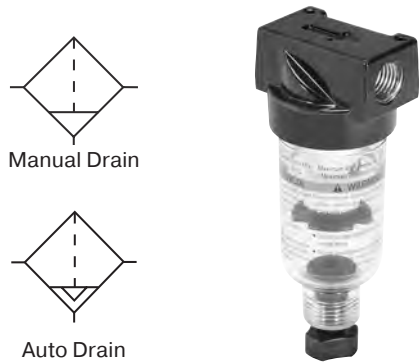
Ordering Information

Model Type	Port Size	Standard Unit
In-Line Filter	1/4	F01-02-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

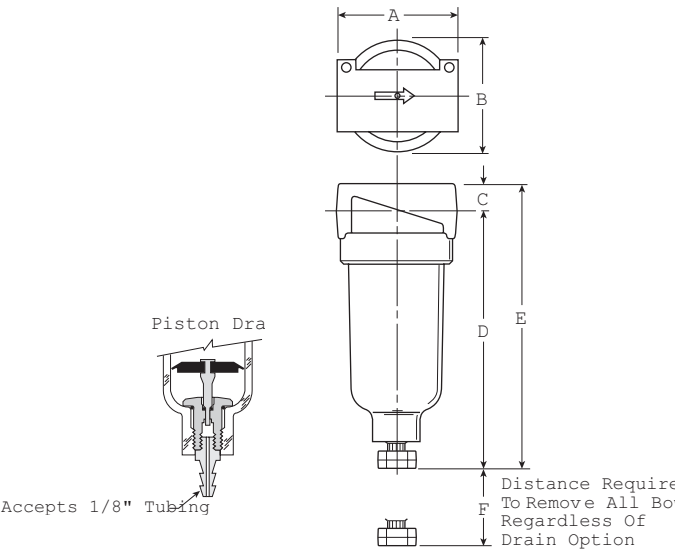
F03

 = "Most Popular"

F03-02-000

Features

- Excellent Water Removal Efficiency
- Unique Deflector Plate that Creates Swirling of the Air Stream Ensuring Maximum Water and Dirt Separation
- Easily Disassembled for Servicing Without the Use of Tools



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit F03-XX-000		1.69 (43)	1.53 (39)	.39 (10)	3.82 (97)	4.21 (107)	1.60 (41)
Piston Drain F03-XX-D00		1.69 (43)	1.53 (39)	.39 (10)	3.87 (99)	4.26 (108)	1.60 (41)

Specifications

Flow Capacity*	1/8	22.0 SCFM (10 dm ³ /s)
	1/4	24.0 SCFM (11 dm ³ /s)
Maximum Supply Pressure		
Polycarbonate Bowl	0 to 150 PSIG (0 to 10.3 bar)	
Metal Bowl	0 to 250 PSIG (0 to 17.2 bar)	
Piston Drain	10 to 250 PSIG (0.7 to 17.2 bar)	
Operating Temperature		
Polycarbonate Bowl	32°F to 125°F (0°C to 52°C)	
Metal Bowl	32°F to 175°F (0°C to 80°C)	
Piston Drain	32°F to 125°F (0°C to 52°C)	
Port Size	NPT	1/8, 1/4
Standard Filtration	5 Micron	
Weight	.41 lb. (.18 kg)	

* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Zinc	
Bowls	Transparent	Polycarbonate
	Metal (Without Sight Gauge)	Zinc
Deflector, Element Holder & Baffle		Plastic
Manual Drain	Body & Stem	Plastic
	Seals	Nitrile
Piston Drain	Piston & Seals	Nitrile
	Stem, Seat, Adaptor & Washers	Aluminum
Filter Elements	5 Micron	Plastic
Seals	Nitrile	

Replacement Bowl Kits

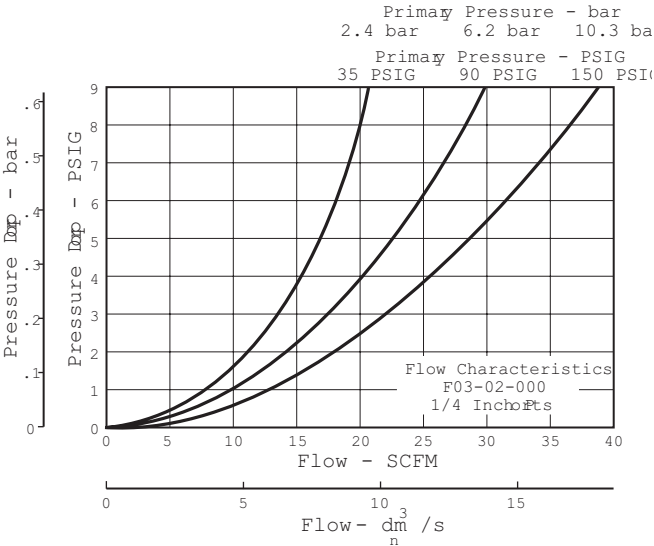
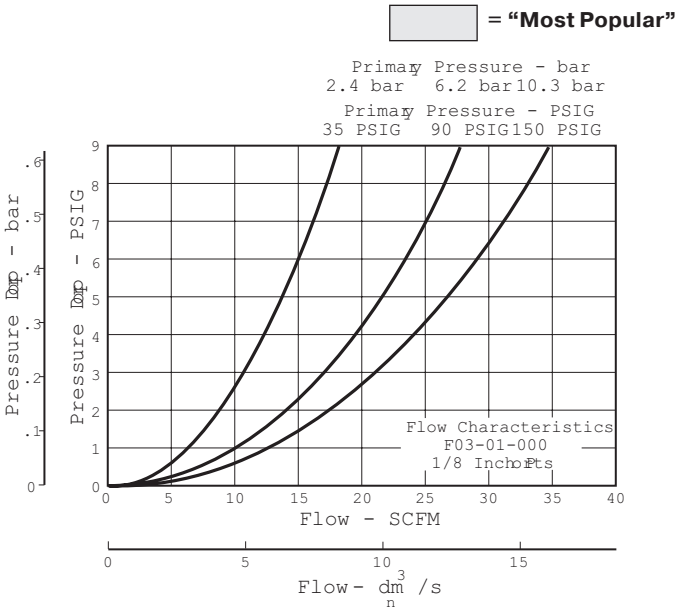
- Metal Bowl –
Manual DrainPS447B
Piston DrainPS451B
- Plastic Bowl –
Manual DrainPS404
Piston DrainPS408B

Replacement Element Kits

- 5 MicronPS403

Accessories

- Filter Element Kit (Bulk Pack, Qty. 12) FRP-96-303
- Mounting Bracket Kit PS417B

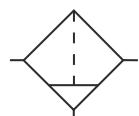


Ordering Information

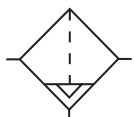
Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
Manual Drain	1/8	F03-01-000	F03-01-M00
	1/4	F03-02-000	F03-02-M00
Piston Drain	1/8	F03-01-D00	F03-01-DM0
	1/4	F03-02-D00	F03-02-DM0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter F08



Manual Drain



Auto Drain



Features

- Standard 5 Micron Filtration
- Quick-disconnect Bowl
- Bowl Guard
- High Flow Capacity

Specifications

Flow Capacity*	1/4	42 SCFM (20 dm ³ /s, ANR)
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl Metal Bowl	14° to 125°F (-10° to 52°C) 14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G 1/4	
Bowl Capacity	0.6 oz	
Standard Filtration	5 Micron	
Weight	0.24 lb. (0.11 kg)	

* Inlet pressure 91.3 psig (6.3 bar). Pressure drop 4.9 psig (0.34 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

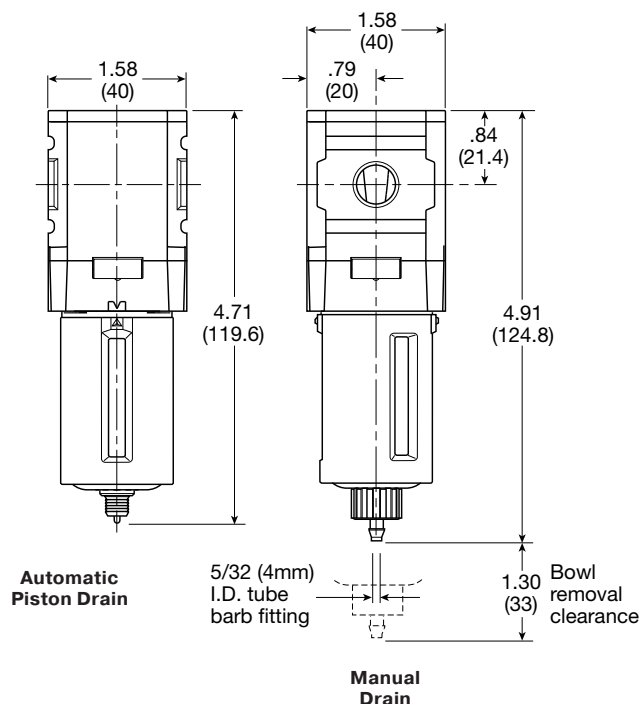
Materials of Construction

Baffle	Acetal	
Body	Aluminum	
Body Cap	ABS	
Bowl	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Bowl Guard	Nylon	
Element Retainer	Acetal	
Filter Element	Sintered Polyethylene	
Seals	Plastic Bowl Metal Bowl	Nitrile Nitrile

Air quality:

Within ISO 8573-1: 1991 Class 3 (Particulates)

Within ISO 8573-1: 2001 Class 6 (Particulates)



Inches (mm)

= “Most Popular”

Replacement Bowl Kits

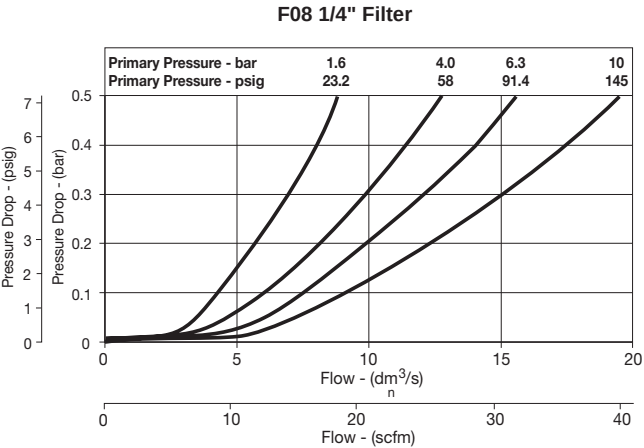
- Metal Bowl, Manual Drain GRP-96-714
- Plastic Bowl / Bowl Guard, Manual Drain..... GRP-96-712

Replacement Element Kit and Bowl Seal

- Type “A”, 5 Micron.....FRP-96-729

Accessories

- Automatic Piston Drain..... GRP-96-716
- Wall Mounting Bracket –
- C-Type.....GPA-97-010
- T-Type GPA-96-737



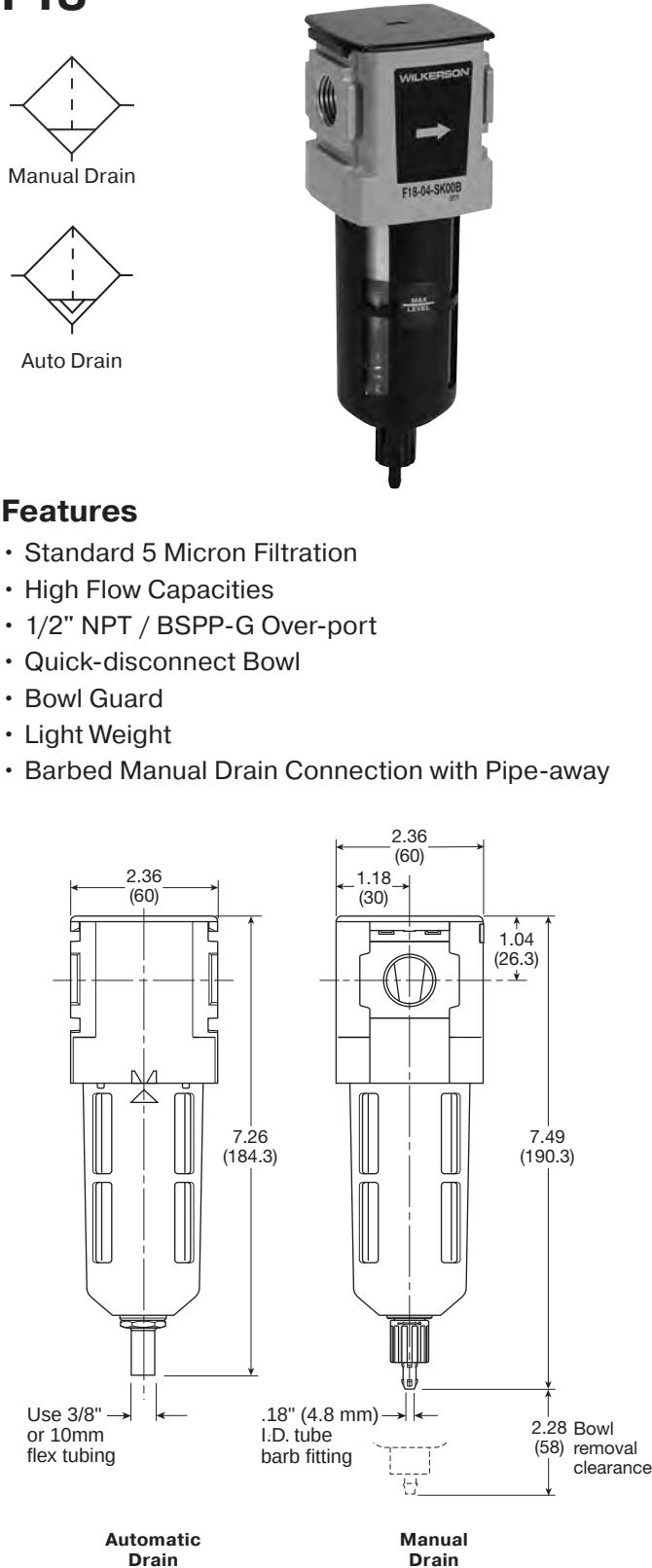
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl (No Sight Gauge)
Manual Drain	1/4	F08-02-SK00B	F08-02-SL00B
Automatic Piston Drain	1/4	F08-02-SR00B	F08-02-SS00B

Options - To order an option supplied with the unit model, Add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F18



Specifications

Flow Capacity*	1/4	50 SCFM (24 dm ³ /s, ANR)
	3/8	78 SCFM (37 dm ³ /s, ANR)
	1/2	82 SCFM (39 dm ³ /s, ANR)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G 1/4, 3/8, 1/2	
Bowl Capacity	1.72 oz	
Standard Filtration	5 Micron	
Weight	0.62 lb. (0.28 kg)	

* Inlet pressure 91.3 psig (6.3 bar). Pressure drop 4.9 psig (0.34 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

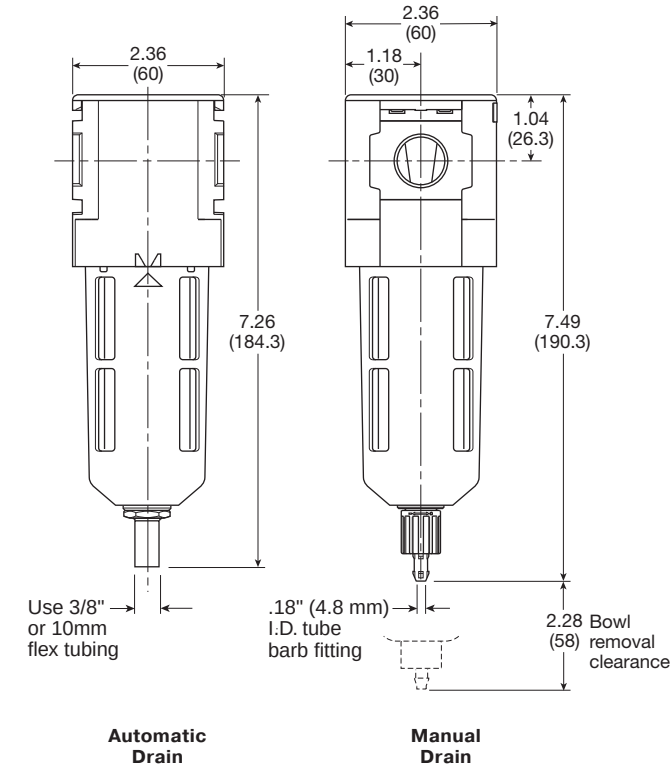
Features

- Standard 5 Micron Filtration
- High Flow Capacities
- 1/2" NPT / BSPP-G Over-port
- Quick-disconnect Bowl
- Bowl Guard
- Light Weight
- Barbed Manual Drain Connection with Pipe-away

Materials of Construction

Body		Aluminum
Body Cap		ABS
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard		Nylon
Deflector		Polypropylene
Element Retainer / Baffle		Acetal
Filter Element		Sintered Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Air quality:
Within ISO 8573-1: 1991 Class 3 (Particulates)
Within ISO 8573-1: 2001 Class 6 (Particulates)



Inches (mm)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Automatic Float Drain	GRP-96-637
Metal Bowl with Sight Gauge, Manual Drain	GRP-96-636
Plastic Bowl – Bowl Guard, Auto Drain	GRP-96-635
Bowl Guard, Manual Drain	GRP-96-634

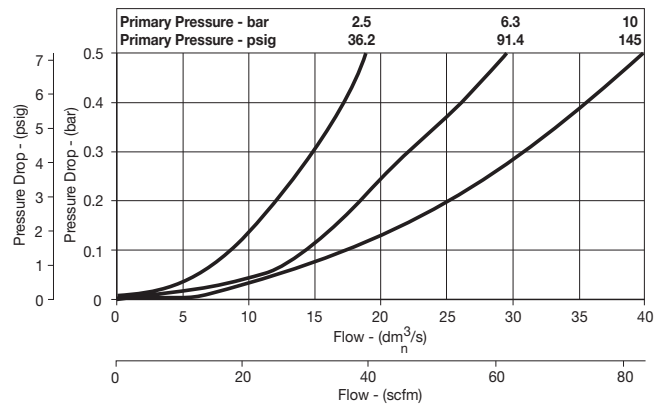
Replacement Element Kits and Bowl Seal

Type "A", 5 Micron Element.....	FRP-96-639
Type "A", 5 Micron with Retainer, Deflector, and Bowl O-ring	FRP-96-641

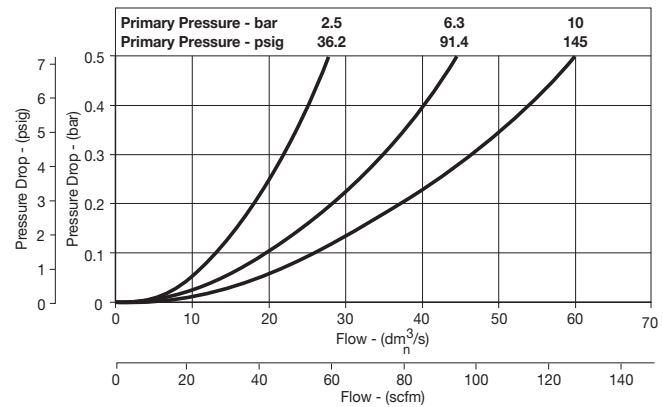
Accessories

Automatic Drain – Fluorocarbon	GRP-95-981
Nitrile	GRP-95-973
Manual Drain	GRP-96-685
Sight Gauge Kit	GRP-96-825
Wall Mounting Bracket – L-Type.....	GPA-96-604
T-Type	GPA-96-602

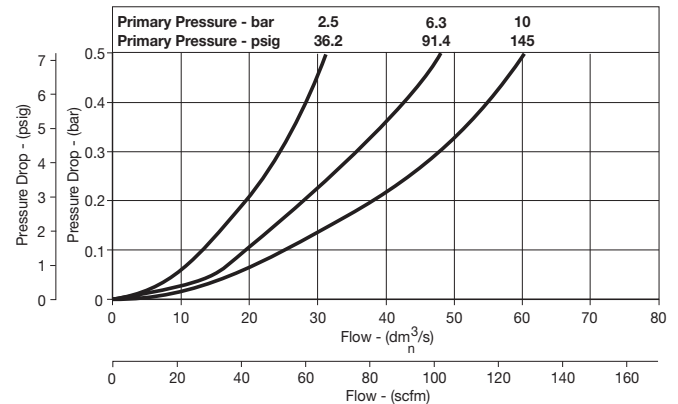
F18 1/4" Filter



F18 3/8" Filter



F18 1/2" Filter

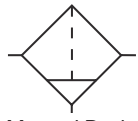


Ordering Information

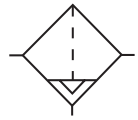
Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge
Manual Drain	1/4	F18-02-SK00B	F18-02-SL00B
	3/8	F18-03-SK00B	F18-03-SL00B
	1/2	F18-04-SK00B	F18-04-SL00B
Automatic Drain	1/4	F18-02-SG00B	F18-02-SH00B
	3/8	F18-03-SG00B	F18-03-SH00B
	1/2	F18-04-SG00B	F18-04-SH00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter F16

 = "Most Popular"


Manual Drain

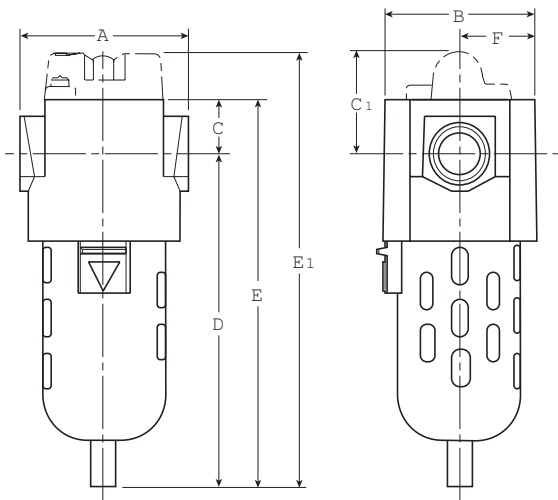


Auto Drain

**F16-02-000**

Features

- Manual Drain
- 5 Micron Rated Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch



Specifications

Flow Capacity*	1/4	63.0 SCFM (29.7 dm ³ /s)
	3/8	74.1 SCFM (34.9 dm ³ /s)
	1/2	80.4 SCFM (37.9 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Bowl Capacity	2.7 oz	
Standard Filtration	5 Micron	
Weight	1.8 lb. (0.8 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Polypropylene	
Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Deflector	Polypropylene	
Element Retainer	Acetal	
Filter Element	Polyethylene	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Polycarbonate

Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁	F
Standard Unit F16-XX-000		3.00 (76)	2.60 (66)	1.00 (25.4)	—	5.50 (139.7)	6.50 (165)	—	1.30 (33)
Differential Pressure Indicator F16-XX-D00		3.00 (76)	2.60 (66)	1.00 (25.4)	1.83 (46.5)	5.50 (139.7)	6.50 (165)	7.33 (186)	1.30 (33)
Automatic Drain F16-XX-F00		3.00 (76)	2.60 (66)	1.00 (25.4)	—	5.50 (139.7)	6.64 (168.7)	—	1.30 (33)
Metal Bowl / Metal Bowl with Sight Gauge F16-XX-G00		3.00 (76)	2.60 (66)	1.00 (25.4)	—	5.50 (139.7)	7.09 (180)	—	1.30 (33)

 = "Most Popular"

Replacement Bowl Kits

Metal Bowl –

Automatic Drain	FRP-95-950
Manual Drain	FRP-95-178
Sight Gauge, Manual Drain	GRP-95-133

Plastic Bowl –

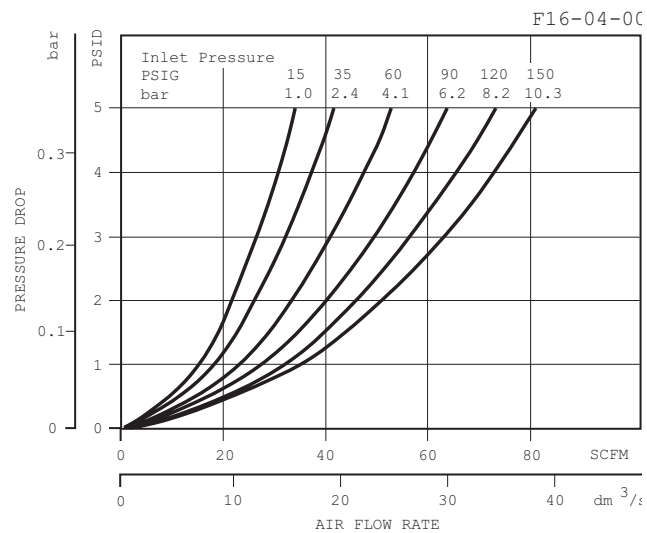
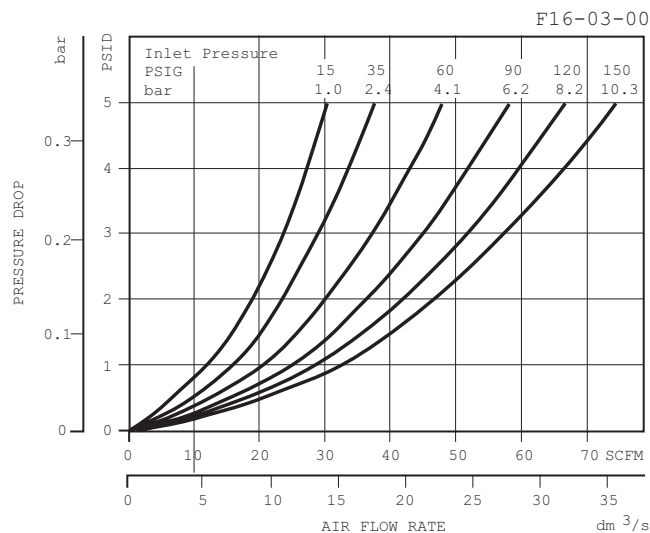
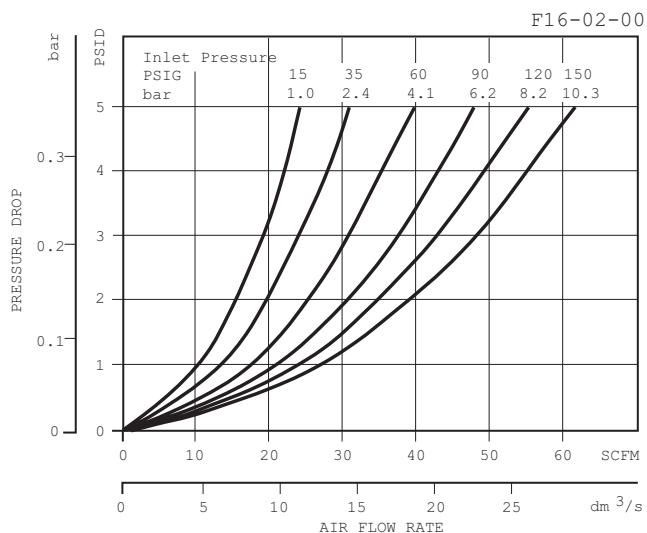
Bowl Guard, Automatic Drain	FRP-95-015
Bowl Guard, Manual Drain	FRP-95-014
Manual Drain	FRP-95-017

Replacement Element Kits

Type "A", 5 Micron..... FRP-95-160

Accessories

Automatic Drain, Nitrile	GRP-95-973
L-Bracket	GPA-95-016
Manual Drain.....	FRP-95-610
Sight Gauge Kit	GRP-95-079

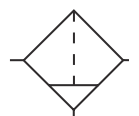


Ordering Information

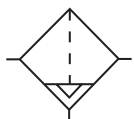
Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl	Metal Bowl / Sight Gauge	Polycarbonate Bowl / Bowl Guard / Differential Pressure Indicator
Manual Drain	1/4	F16-02-000	F16-02-M00	F16-02-G00	F16-02-D00
	3/8	F16-03-000	F16-03-M00	F16-03-G00	F16-03-D00
	1/2	F16-04-000	F16-04-M00	F16-04-G00	F16-04-D00
Automatic Drain	1/4	F16-02-F00	F16-02-FM0	F16-02-FG0	F16-02-DF0
	3/8	F16-03-F00	F16-03-FM0	F16-03-FG0	F16-03-DF0
	1/2	F16-04-F00	F16-04-FM0	F16-04-FG0	F16-04-DF0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter F28



Manual Drain

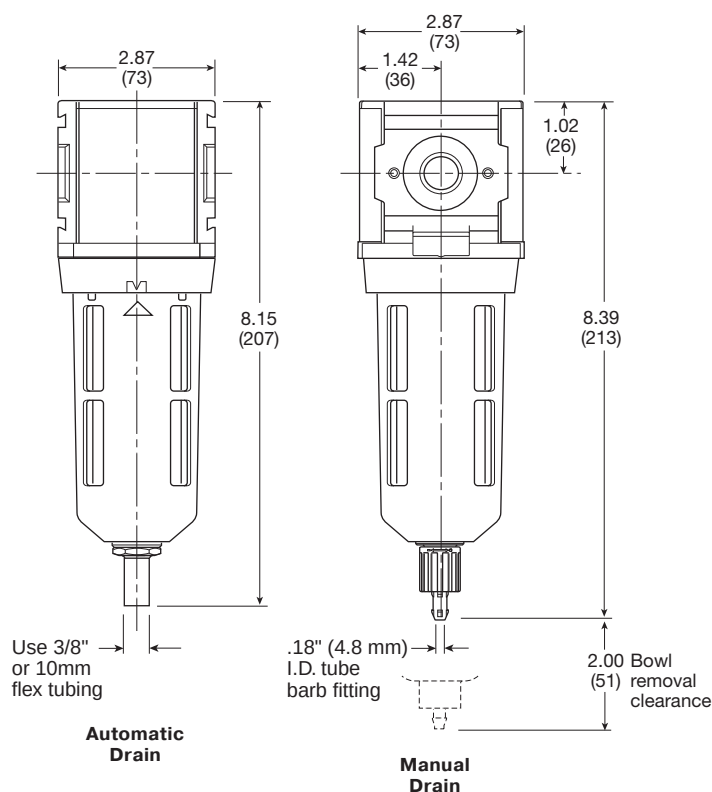


Auto Drain



Features

- Standard 5 Micron Filtration
- High Flow Capacities
- 3/4" NPT / BSPP-G Over-port
- Quick-disconnect Bowl
- Bowl Guard
- Light Weight
- Barbed Manual Drain Connection with Pipe-away



Inches (mm)

Specifications

Flow Capacity*	3/8	115 SCFM (54 dm ³ /s, ANR)
	1/2	120 SCFM (57 dm ³ /s, ANR)
	3/4	145 SCFM (68 dm ³ /s, ANR)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Bowl Capacity	2.87 oz	
Standard Filtration	5 Micron	
Weight	1.01 lb. (0.46 kg)	

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 4.9 PSID (.34 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard	Nylon	
Deflector	Polypropylene	
Element Retainer / Baffle	Acetal	
Filter Element	Sintered Polyethylene	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Air quality:

Within ISO 8573-1: 1991 Class 3 (Particulates)

Within ISO 8573-1: 2001 Class 6 (Particulates)

 = "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Automatic Float Drain	GRP-96-645
Metal Bowl with Sight Gauge, Manual Drain	GRP-96-644
Plastic Bowl – Bowl Guard, Auto Drain	GRP-96-643
Bowl Guard, Manual Drain	GRP-96-642

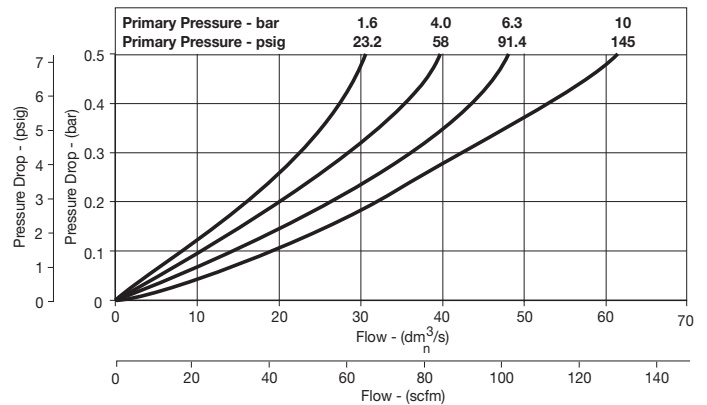
Replacement Element Kits and Bowl Seal

Type "A", 5 Micron with Element.....	FRP-96-653
Type "A", 5 Micron with Retainer, Deflector, and Bowl O-ring	FRP-96-283

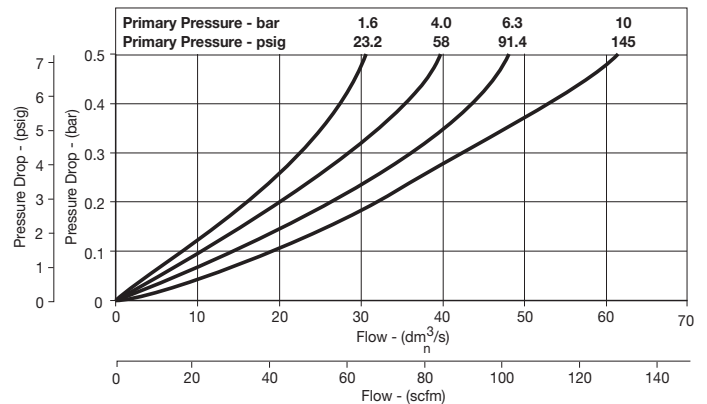
Accessories

Automatic Drain – Fluorocarbon	GRP-95-981
Nitrile	GRP-95-973
Manual Drain	GRP-96-685
Sight Gauge Kit	GRP-96-825
Wall Mounting Bracket – L-Type	GPA-96-605
T-Type	GPA-96-602

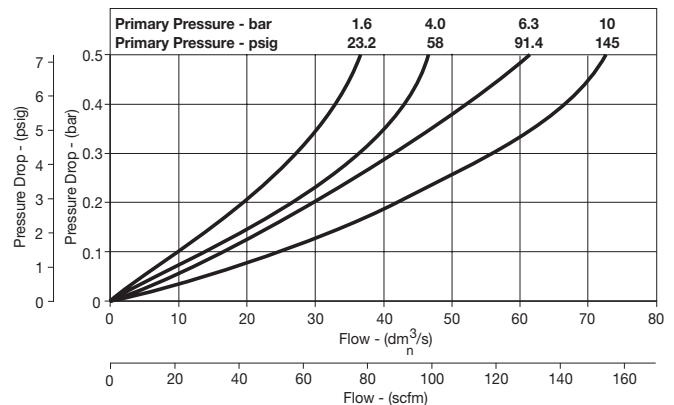
F28 3/8" Filter



F28 1/2" Filter



F28 3/4" Filter

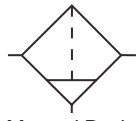


Ordering Information

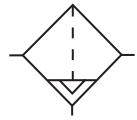
Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge
Manual Drain	3/8	F28-03-SK00B	F28-03-SL00B
	1/2	F28-04-SK00B	F28-04-SL00B
	3/4	F28-06-SK00B	F28-06-SL00B
Automatic Drain	3/8	F28-03-SG00B	F28-03-SH00B
	1/2	F28-04-SG00B	F28-04-SH00B
	3/4	F28-06-SG00B	F28-06-SH00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter F26

 = "Most Popular"


Manual Drain

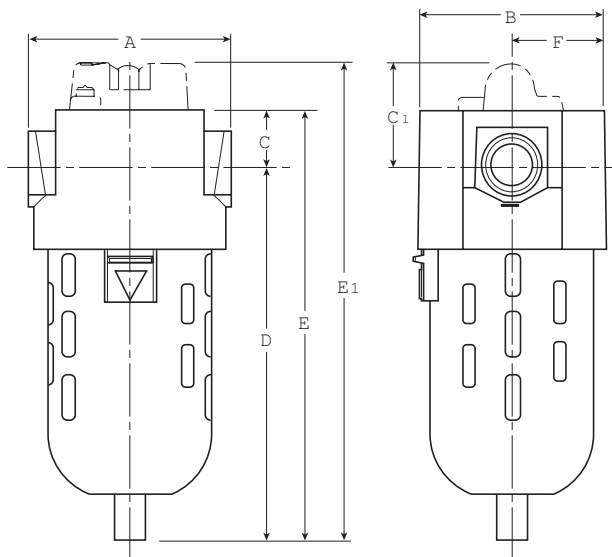


Auto Drain

**F26-02-000**

Features

- Manual Drain
- 5 Micron Rated Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch



Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁	F
Standard Unit F26-XX-000		3.30 (84)	3.00 (76)	1.00 (25.4)	—	6.40 (162.6)	7.40 (188)	—	1.50 (38)
Differential Pressure Indicator F26-XX-D00		3.30 (84)	3.00 (76)	1.00 (25.4)	1.83 (46.5)	6.40 (162.6)	7.40 (188)	8.23 (209)	1.50 (38)
Automatic Drain F26-XX-F00		3.30 (84)	3.00 (76)	1.00 (25.4)	—	6.40 (162.6)	7.54 (191.5)	—	1.50 (38)
Metal Bowl / Metal Bowl with Sight Gauge F26-XX-G00		3.30 (84)	3.00 (76)	1.00 (25.4)	—	6.40 (162.6)	7.30 (185)	—	1.50 (38)

Specifications

Flow Capacity*	1/4	81.3 SCFM (28.3 dm ³ /s)
	3/8	117.8 SCFM (55.5 dm ³ /s)
	1/2	149.8 SCFM (70.6 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Bowl Capacity	3.2 oz	
Standard Filtration	5 Micron	
Weight	2.9 lb. (1.3 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Acetal	
Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Deflector	Polypropylene	
Element Retainer	Acetal	
Filter Element	Polyethylene	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Polycarbonate

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –

Automatic Drain	GRP-95-960
Manual Drain	GRP-95-930
Sight Gauge, Manual Drain	GRP-95-931

Plastic Bowl –

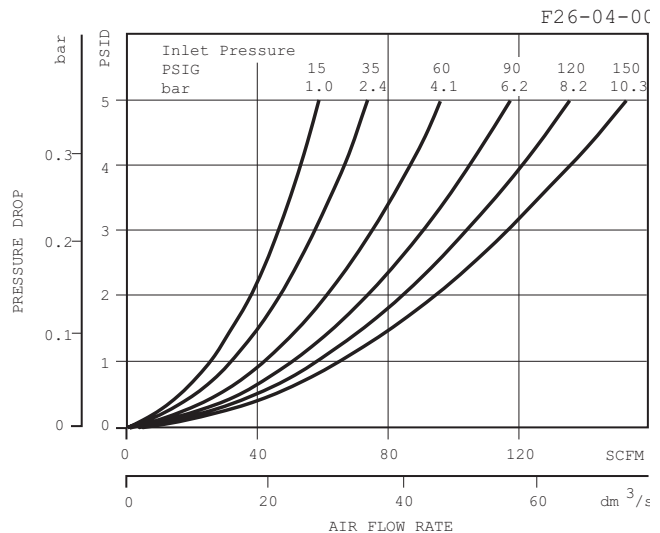
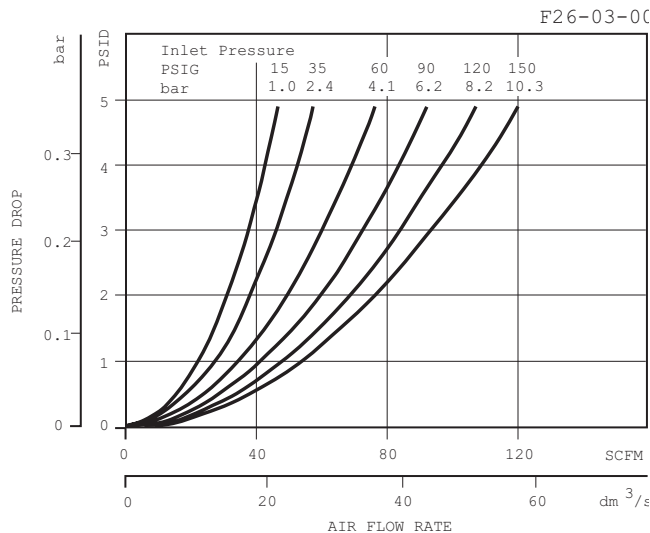
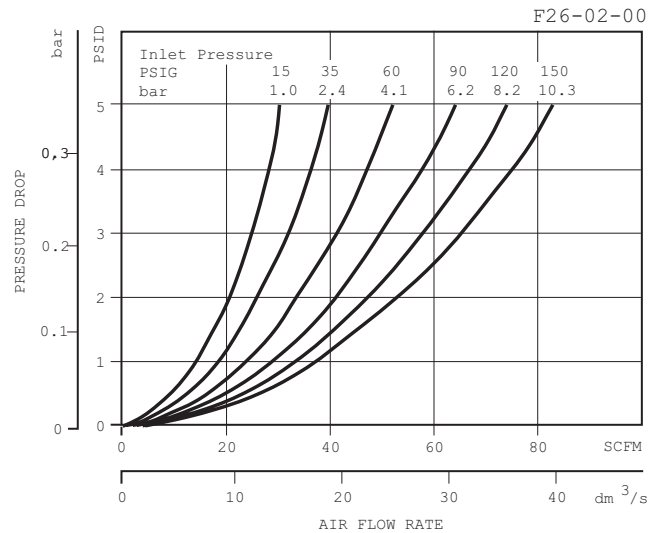
Automatic Drain	GRP-95-948
Bowl Guard, Manual Drain	GRP-95-935
Manual Drain	GRP-95-929

Replacement Element Kits

Type "A", 5 Micron..... FRP-95-115

Accessories

Automatic Drain, Nitrile	GRP-95-973
Manual Drain.....	FRP-95-610
Sight Gauge Kit	GRP-95-079
L-Bracket	GPA-95-946



Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl	Metal Bowl / Sight Gauge	Polycarbonate Bowl / Bowl Guard / Differential Pressure Indicator
Manual Drain	1/4	F26-02-000	F26-02-M00	F26-02-G00	F26-02-D00
	3/8	F26-03-000	F26-03-M00	F26-03-G00	F26-03-D00
	1/2	F26-04-000	F26-04-M00	F26-04-G00	F26-04-D00
Automatic Drain	1/4	F26-02-F00	F26-02-FM0	F26-02-FG0	F26-02-DF0
	3/8	F26-03-F00	F26-03-FM0	F26-03-FG0	F26-03-DF0
	1/2	F26-04-F00	F26-04-FM0	F26-04-FG0	F26-04-DF0

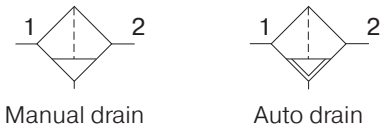
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F90

 = "Most Popular"

Symbols



- Integral 3/4" or 1" ports (NPT & BSPP)
- High efficiency particulate element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Low temperature -40° with combined manual / semi-auto drain as standard

F90

-

0

-

6

-

S

H

0

0

Series
Filter F90

Thread type*
NPT 0
BSPP C

Port size
3/4 6
1 8

Element
5 micron S

Bowl / drain type
H Metal bowl / sight gauge & auto drain
L Metal bowl / sight gauge / manual & semi auto drain

***Note:** For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Ordering Information

Port size	Description	Flow† scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Bowl capacity cm³ (oz)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number†
3/4"	Combined manual / semi auto drain	170	17.5 (254)	-40 (-40)	60 (140)	130 (4.4)	244 (9.6)	90 (3.5)	94 (3.7)	0.9 (1.98)	F90-06-SL00
3/4"	Auto drain	170	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	244 (9.6)	90 (3.5)	94 (3.7)	0.9 (1.98)	F90-06-SH00
1"	Combined manual / semi auto drain	170	17.5 (254)	-40 (-40)	60 (140)	130 (4.4)	244 (9.6)	90 (3.5)	94 (3.7)	0.9 (1.98)	F90-08-SL00
1"	Auto drain	170	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	244 (9.6)	90 (3.5)	94 (3.7)	0.9 (1.98)	F90-08-SH00

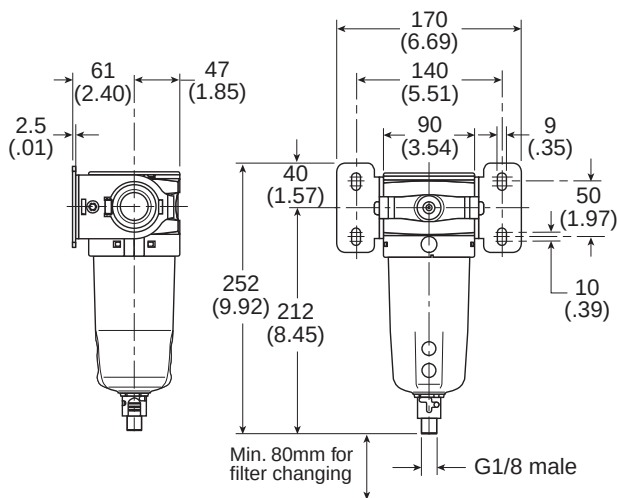
† **Standard part numbers shown in bold. For other models refer to Options chart above.**
‡ Flow with 6.3 bar (91.4 psig) inlet pressure and 0.5 (7.3 psig) pressure drop.

Specifications

Fluid	Compressed air
Maximum inlet pressure*	17.5 bar (254 psig)
Temperature range*:	
Auto drain	-10°C to 60°C (14°F to 140°F)
Combined drain	-40°C to 60°C (-40°F to 140°F)
Particle removal	5 micron
Air quality	Within ISO 8573-1: 1991 Class 3 and 5 (particulates) Within ISO 8573-1: 2001 Class 6 and 7 (particulates)
Typical flow 5 micron element 6.3 bar (91.4 psig) inlet pressure and 0.5 bar (7.3 psig) pressure drop	1" port 170 scfm
Manual / semi-auto drain	Closed at 0.8 bar (11.6 psig) G1/8 thread male
Auto drain bowl pressure to close drain	0.8 bar (11.6 psig)
Operating range manual override facility	0.8 bar (11.6 psig) to 17.5 bar (254 psig)
Bowl capacity	130 cm ³ (4.4 US oz)

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35.6°F).

Dimensions mm (inches)

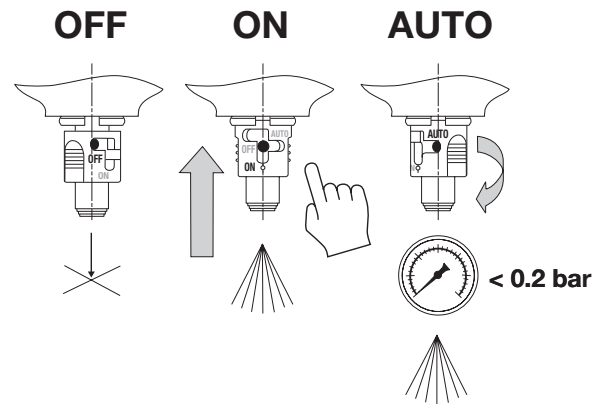


Service kits

5 micron element kit	P3YKA00ESE
40 micron element kit	P3YKA00ESG
Bowl kit with combined manual / semi auto drain.....	P3YKA00BSC
Bowl kit with auto drain	P3YKA00BSA

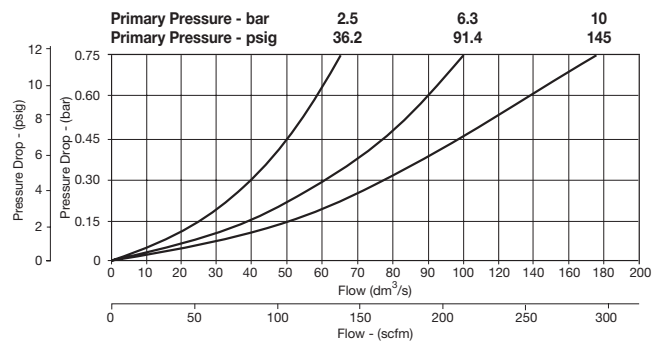
Material specifications

Body	Aluminum
Sight glass	Polypropylene
Body cover	ABS
Element	Sintered P.E.
Seals	Nitrile NBR
Drains	Manual / semi-auto: Acetal
	Automatic: PA / Ø 10mm brass connection

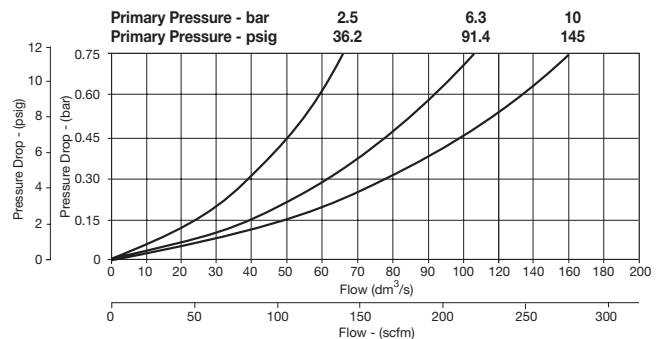


Flow characteristics

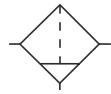
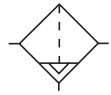
(3/4") Filter



(1") Filter



Particulate Filter F30

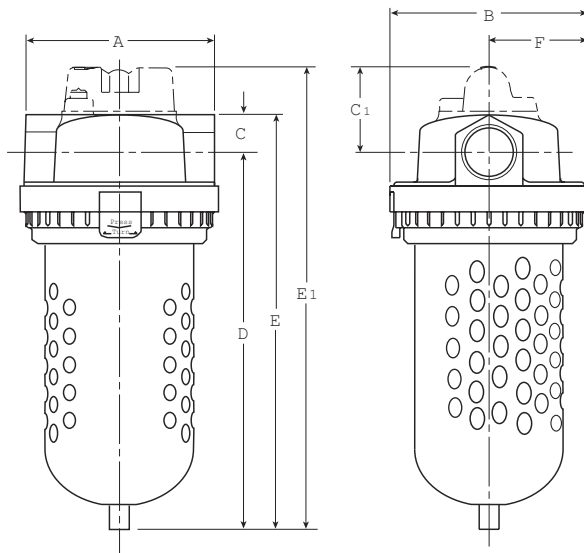
 = "Most Popular"
Manual
Drain

Auto Drain

**F30-06-000**

Features

- Standard Manual Drain
- Standard 5 Micron Rated Element
- Quick-disconnect Clamp Ring for Easy Bowl Removal
- Bowl Guard



Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁	F
Standard Unit F30-XX-000		4.63 (118)	4.79 (122)	.94 (24)	—	8.96 (228)	9.90 (251)	—	2.40 (61)
Differential Pressure Indicator F30-XX-D00		4.63 (118)	4.79 (122)	.94 (24)	1.89 (48)	8.96 (228)	9.90 (251)	10.73 (272.5)	2.40 (61)
Automatic Drain F30-XX-F00		4.63 (118)	4.79 (122)	.94 (24)	—	8.96 (228)	10.04 (255)	—	2.40 (61)
Metal Bowl F30-XX-M00		4.63 (118)	4.79 (122)	.94 (24)	—	8.96 (228)	10.00 (254)	—	2.40 (61)
Metal Bowl with Sight Gauge F30-XX-G00		4.63 (118)	4.79 (122)	.94 (24)	—	8.96 (228)	9.90 (251)	—	2.40 (61)

Specifications

Flow Capacity*	3/4	316 SCFM (149.1 dm ³ /s)
	1	323 SCFM (152.4 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G 3/4, 1	
Bowl Capacity	2.0 oz	
Standard Filtration	5 Micron	
Weight	5.5 lb. (2.5 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Acetal	
Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Deflector	Aluminum	
Element Retainer	Steel Stud	
Filter Element	Polyethylene	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Tempered Glass

 = “Most Popular”

Replacement Bowl Kits

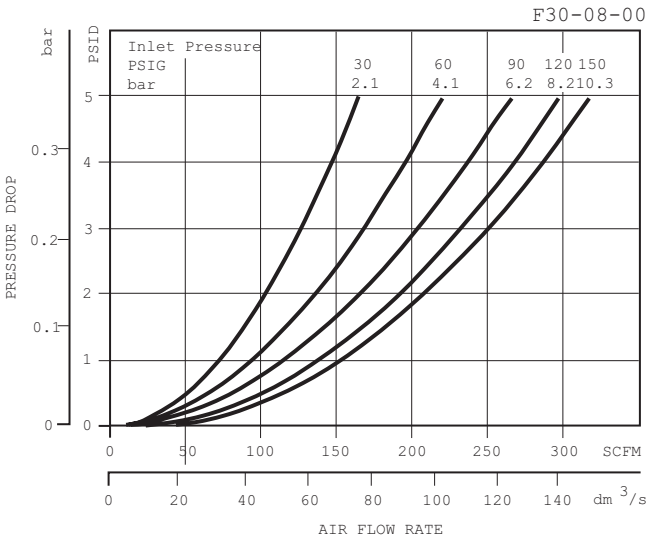
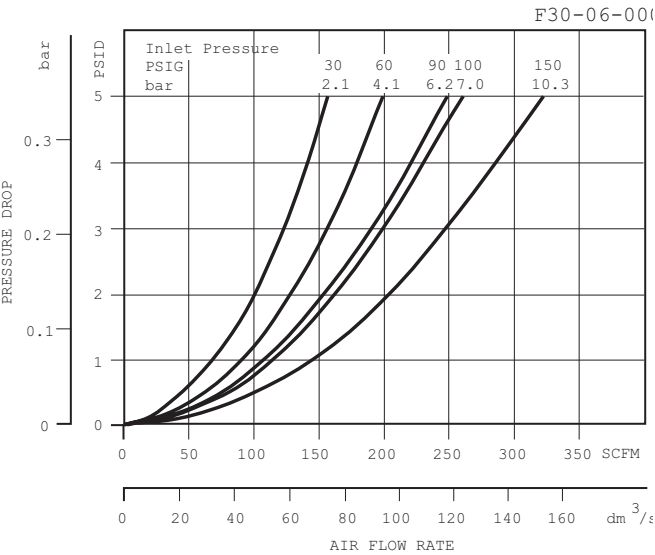
- Metal Bowl –
- Automatic Drain GRP-95-970
 - Sight Gauge, Manual Drain GRP-95-676
 - Manual Drain FRP-95-593
- Plastic Bowl –
- Bowl Guard, Automatic Drain FRP-95-775
 - Bowl Guard, Manual Drain FRP-95-832
 - Manual Drain FRP-96-315

Replacement Element Kits

- Type “A”, 5 Micron.....FRP-95-209
- (Element can also be used for discontinued F34 Particulate Filter series)

Accessories

- Automatic Drain, Nitrile GRP-95-973
- Manual Drain.....FRP-95-610
- Sight Gauge Kit FRP-95-771



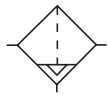
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Metal Bowl	Metal Bowl / Sight Gauge	Polycarbonate Bowl / Bowl Guard / Differential Pressure Indicator
Manual Drain	3/4	F30-06-000	F30-06-M00	F30-06-G00	F30-06-D00
	1	F30-08-000	F30-08-M00	F30-08-G00	F30-08-D00
Automatic Drain	3/4	F30-06-F00	F30-06-FM0	F30-06-FG0	F30-06-DF0
	1	F30-08-F00	F30-08-FM0	F30-08-FG0	F30-08-DF0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter

F35

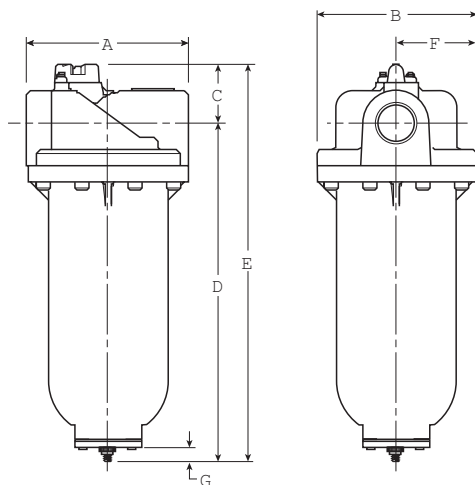


Auto Drain

**F35-0B-000**

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 250 PSIG*
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Differential pressure gauge available, order separately, Kit DP3-01-000
- Unique Drain Mounting Plate Design Offers a Trouble-free Method for Interchanging and Installing External Drains



NOTE: Automatic internal float drain shown is included on F35 filters with F00 suffix only.
Models with 000 suffix include drain plate with tapped 1/2 NPT / BSPP-G drain port.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit F35-XX-000		7.80 (198)	7.75 (197)	2.81 (71)	16.24 (412.5)	19.07 (484)	3.88 (98.6)	.55 (14)
Automatic Drain F35-XX-F00		7.80 (198)	7.75 (197)	2.81 (71)	15.69 (398.5)	18.52 (470)	3.88 (98.6)	.55 (14)

Specifications

Flow Capacity*	1-1/2	1280 SCFM (604 dm ³ /s)
	2	1400 SCFM (660 dm ³ /s)
Maximum Supply Pressure	without DPI and with Pressure Gauge	250 PSIG (17.2 bar)†
	with DPI	150 PSIG (10.3 bar)
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	1-1/4, 1-1/2, 2
Bowl Capacity	12.5 oz	
Standard Filtration	5 Micron	
Weight	19.3 lb. (8.7 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 5 PSID (0.3 bar).

** Without pressure indicator – Max. supply pressure is 250 PSIG (17.2 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Baffle	Plated Steel
Body	Aluminum
Bowls	Aluminum
Deflector	Plated Steel
Element Retainer	Plated Steel
Filter Element	Polyethylene
Seals	Fluorocarbon
Stud	Plated Steel

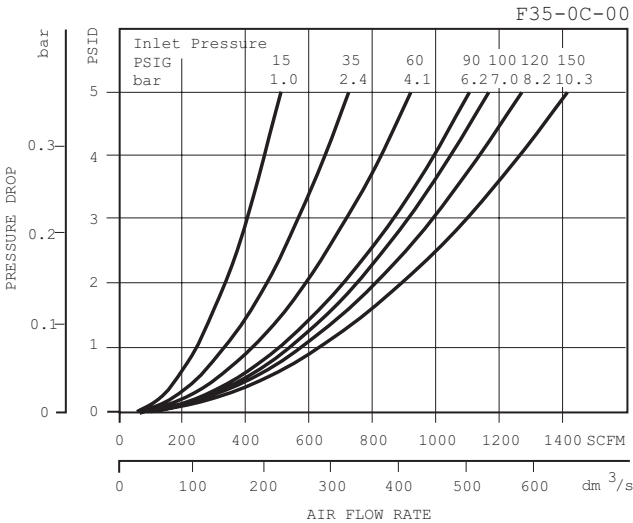
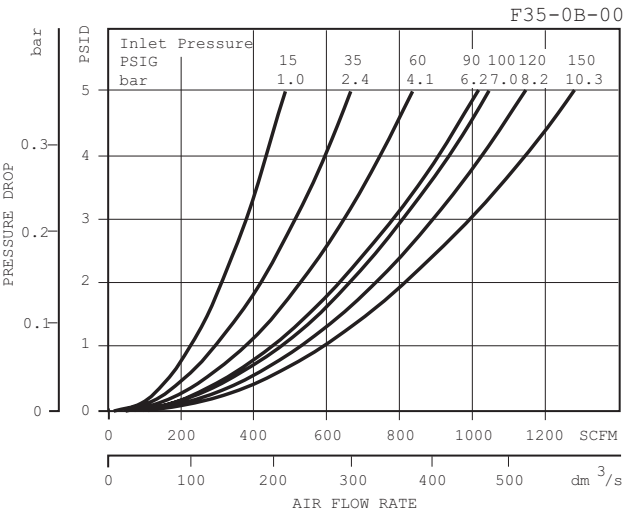
= “Most Popular”

Replacement Element Kit

Element, F35, 5 Micron, Fluorocarbon O-rings FRP-95-505

Accessories

- Cap, Differential Pressure Indicator –
For pressures over 150 PSIG..... GRP-95-022
- Drain, Automatic, Internal, Fluorocarbon,
1/8 NPT GRP-95-981
- Drain Plate Kit –
1/2 NPT tapped drain port GRP-95-393
5/16 Dia. Drain Port,
For use with Internal Auto Drain..... GRP-95-391
- Gauge, Differential Pressure..... DP3-01-000
- Indicator, Differential PressureDP2-02-001
- Manual Drain Kit
Includes 1/2" Drain Plate, Manual Drain..... GRP-95-392
- Manual Override for Auto Float Drain –
GRP-05-981 Required GRP-96-001

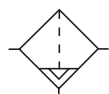


Ordering Information

Model Type	Port Size	Metal Bowl	
Manual Drain	1-1/2	F35-0B-000	(Includes 1/2 NPT / BSPP-G Drain Plate)
	2	F35-0C-000	
Automatic Drain	1-1/2	F35-0B-F00	
	2	F35-0C-F00	

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Particulate Filter WF602



Auto Drain

**WF602-12WJ**

Features

- Excellent water removal efficiency
- For heavy duty applications with minimum pressure drop requirement
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation
- Large filter element surface guarantees low pressure drop and increased element life
- 40 micron filter element standard, 5 micron available
- Metal bowl with sight gauge standard
- Twist drain as standard, optional auto drain
- Large bowl capacity
- Optional high capacity bowl(s) available
- 1-1/2" port, NPT & BSPP

Specifications

Flow Capacity (high flow)* 1-1/2" 450 SCFM (212.4 dm³/s)

Maximum Supply Pressure:

Aluminum (E)	0 to 300 psig (0 to 20.7 bar)
Zinc with gauge (W)	0 to 250 psig (0 to 17.2 bar)
With internal auto drain [R]	20 to 175 psig (1.14 to 11.9 bar)
With external auto drain [Q]	0 to 250 psig (0 to 17.2 bar)

Operating Temperature:

Aluminum (E)	40°F to 150°F (4.4°C to 65.6°C)
Zinc with gauge (W)	40°F to 150°F (4.4°C to 65.6°C)
With internal auto drain [R]	40°F to 125°F (4.4°C to 52°C)
With external auto drain [Q]	40°F to 150°F (4.4°C to 65.6°C)

Bowl Capacity

Zinc with gauge (W)	16 oz.
Aluminum (E)	32 oz.

Standard Filtration 5 Micron (G) or 40 Micron (J)

Weight:

16 oz.	7.0 lb. (3.18 kg)
32 oz.	7.7 lb. (3.49 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 5 PSID (0.3 bar).

() Bowl Type, [] Drain Type

Materials of Construction

Body	Zinc
Bowls (E) 32 oz. without sight gauge	Aluminum
Bowl (W) 16 oz. with sight gauge	Zinc
Manual twist drain & overnight	Brass
Drain housing "R"	Acetal
Drain housing "Q"	Bronze
Element	Polypropylene
Seals	Nitrile
Sight gauge	Nylon

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Manual Drain WF602-12W		5.19 (132)	4.90 (124)	8.18 (208)	9.46 (240)	2.45 (62)	1.28 (32.4)
Automatic Drain WF602-12E		5.19 (132)	4.90 (124)	11.41 (290)	12.69 (322)	2.45 (62)	1.28 (32.4)

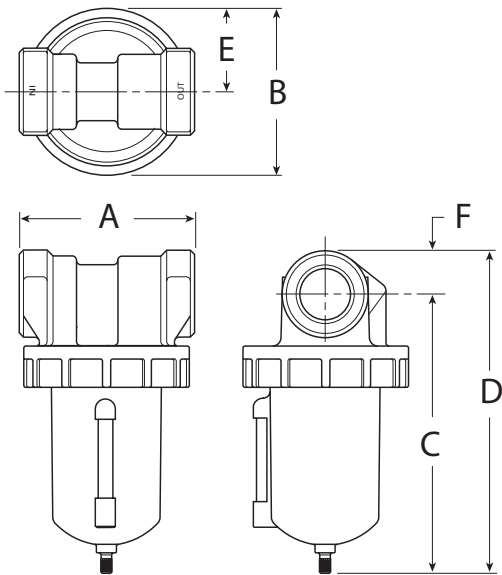
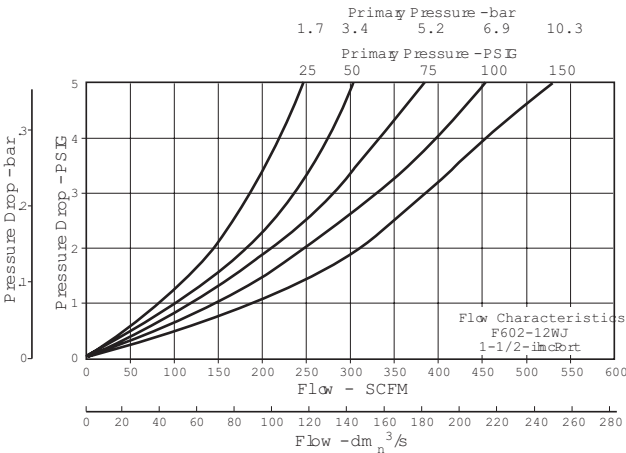
= “Most Popular”

Replacement Element Kit

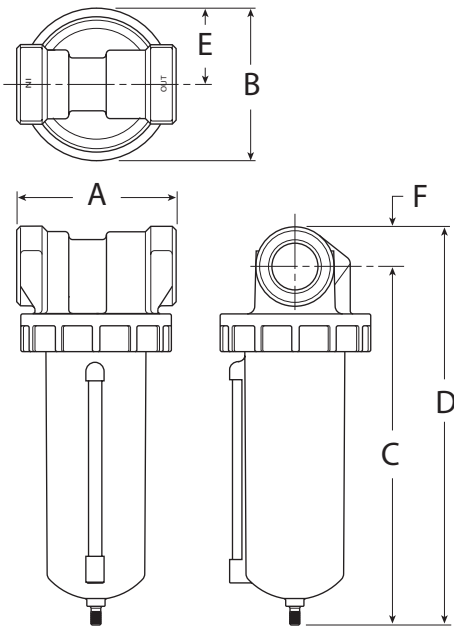
- Element, 5 MicronEK602VB
- Element, 40 MicronEK602B

Accessories

- Aluminum bowl (E) 32 oz.BK603B
- Zinc bowl with sight gauge (W) 16 oz.BK605WB
- External auto drain (E) 32 oz.....SA603D
- External auto drain (W) 16 oz.....SA602D
- Internal auto drain (all)SA602MD
- Manual drain (all)SA600Y7-1
- Semi-automatic (overnight) drain SA602A7
- Deflector, baffle assembly & retaining rod (all) RK602C
- External auto drain (all) RK602D
- Internal auto drain (all)RK602MD
- Metal bowl with sight gauge (W) 16 oz. RKB605WB



WF602-12W (Hi-Flow)



WF602-12E (Hi-Flow)

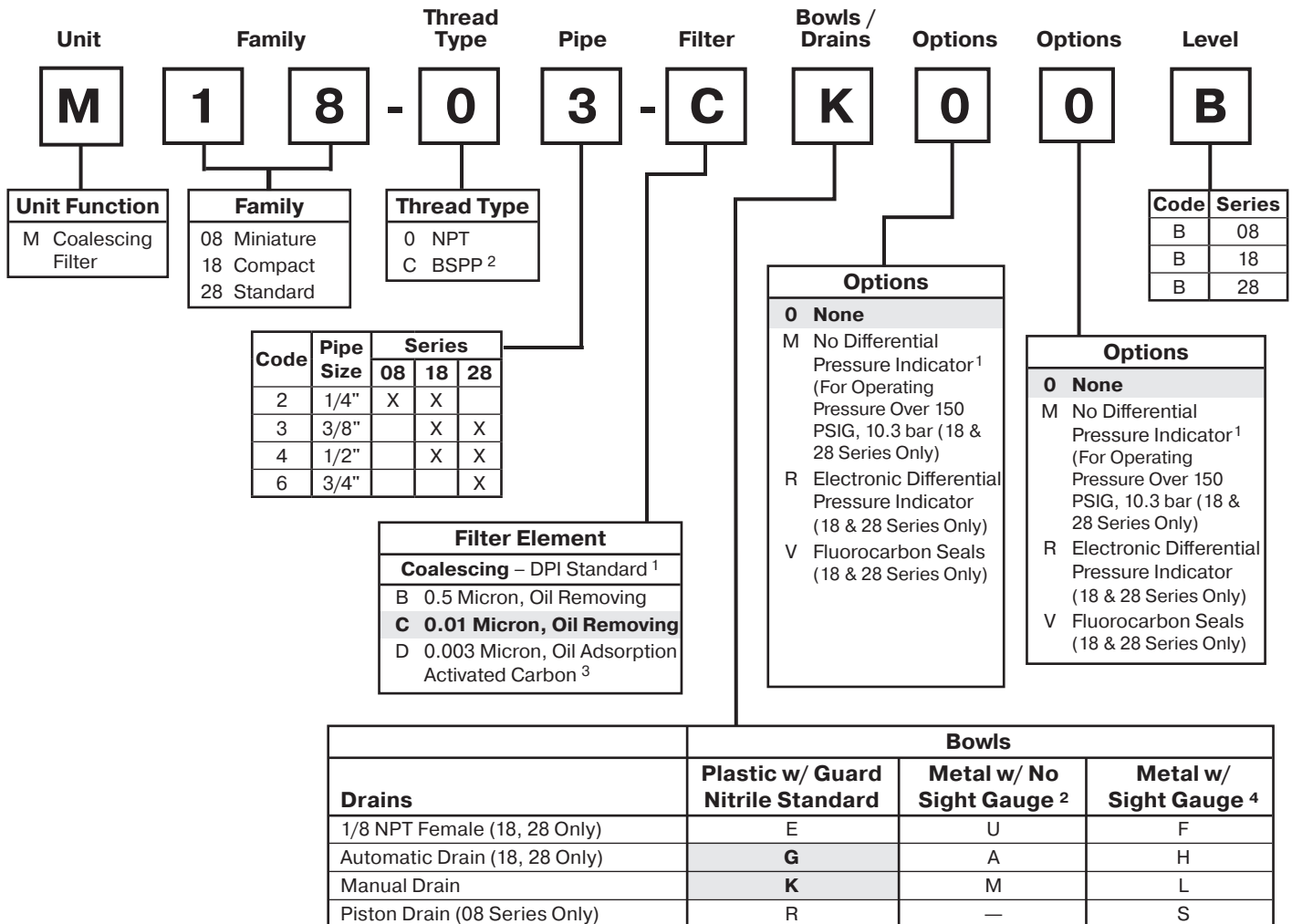
Ordering Information

Model Type	Port Size	Bowl Capacity	Metal Bowl
Manual Drain	1-1/2	16 oz.	WF602-12WJ
	1-1/2	32 oz.	WF602-12EJ
Automatic Drain	1-1/2	16 oz.	WF602-12WJR
	1-1/2	32 oz.	WF602-12EJR

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing (Oil Removal) Numbering System

 = "Most Popular"



¹ "M" Option not available on 08 Series.

² ISO, R228 (G Series)

³ Only C, D, K, and L bowl / drain configurations available.

⁴ M08 filter has an all metal bowl (no sight gauge).

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements:

All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements:

All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" activated carbon elements:

All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

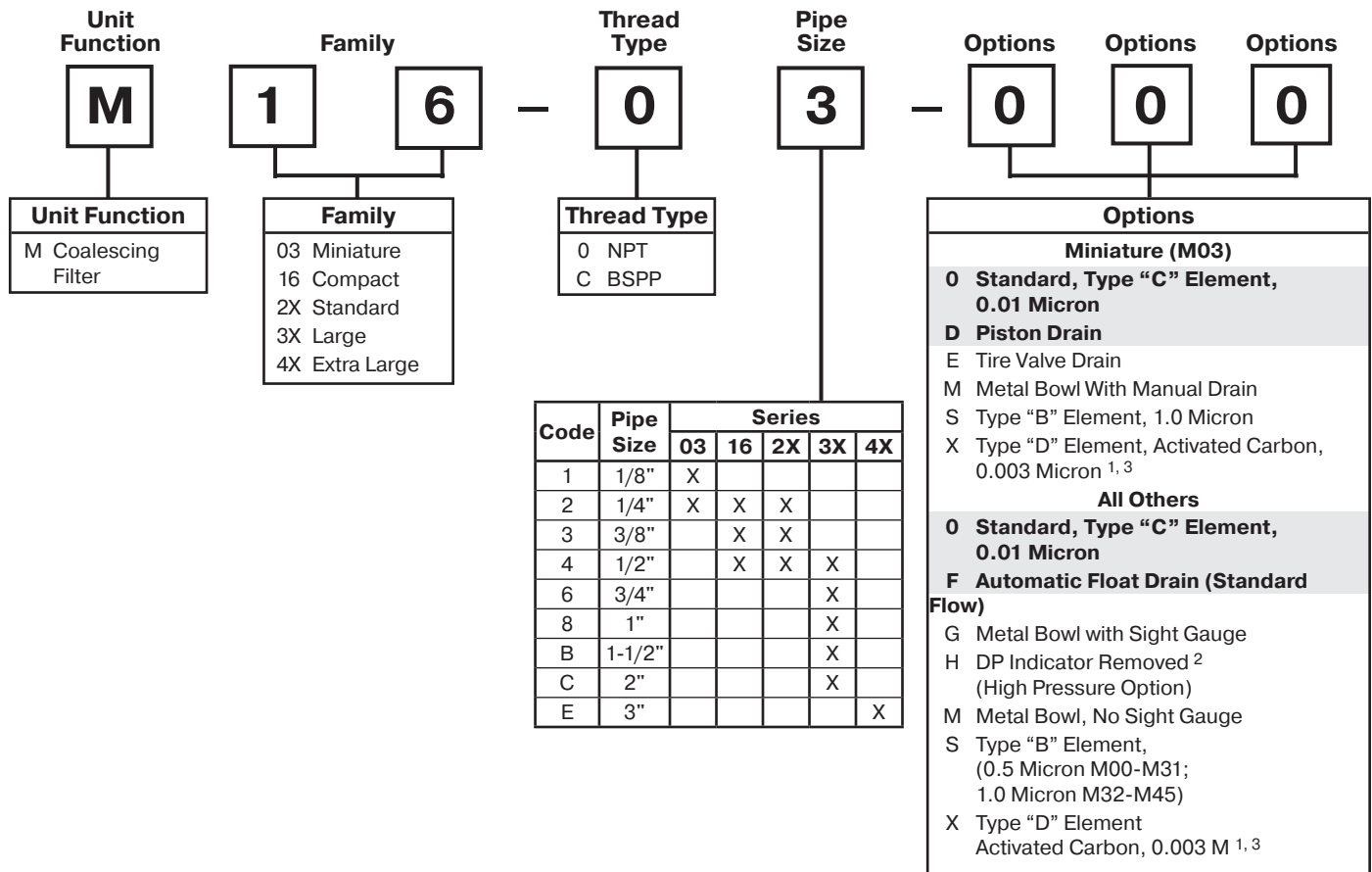
NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

M 1 8 - 0 3 - C K 0 0 B

Coalescing Filter Numbering System

 = "Most Popular"



¹ Auto Float Drains not available with M16, M26- units with Type "D" Activated Carbon Elements.

² Except Models M5X.

³ Units with Type "D" element do not contain DP indicator.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

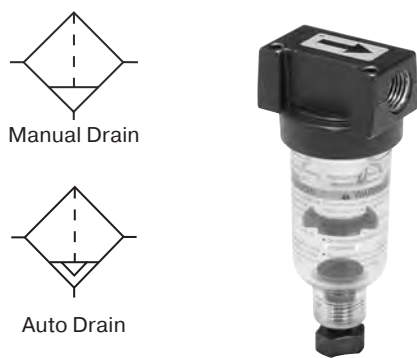
NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1:1991(E), pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

NOTE: 000 in position 6, 7, and 8 signifies standard product.

Coalescing Filter

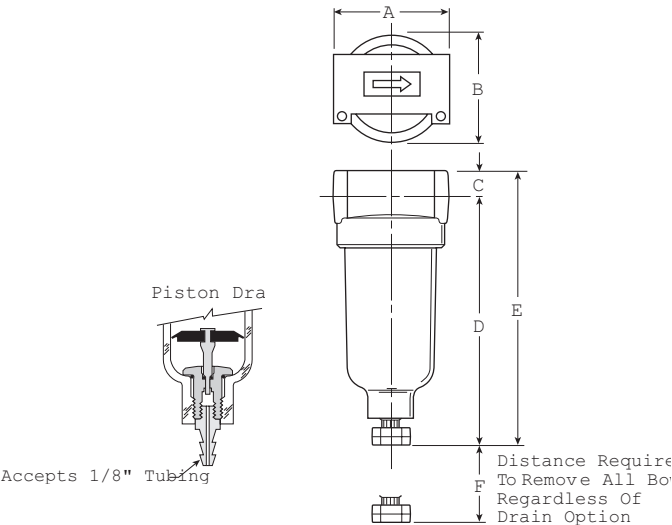
M03



M03-02-000

Features

- Removes Liquid Aerosols and Sub-micron Particles
- Liquids Gravitate to the Bottom of the Element and Will Not Re-enter the Airstream
- Oil Free Air for Critical Applications, such as Air Gauging and Pneumatic Instrumentation and Controls



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit M03-XX-000		1.69 (43)	1.53 (39)	.39 (10)	3.82 (97)	4.21 (107)	1.60 (41)
Piston Drain M03-XX-D00		1.69 (43)	1.53 (39)	.39 (10)	3.87 (99)	4.26 (108)	1.60 (41)

Specifications

Flow Capacity*	1/8	17.0 SCFM (8 dm ³ /s)
	1/4	20.0 SCFM (9 dm ³ /s)
Maximum Supply Pressure		
Polycarbonate Bowl	0 to 150 PSIG (0 to 10.3 bar)	
Metal Bowl	0 to 250 PSIG (0 to 17.2 bar)	
Piston Drain	10 to 250 PSIG (0.7 to 17.2 bar)	
Operating Temperature		
Polycarbonate Bowl	32°F to 125°F (0°C to 52°C)	
Metal Bowl	32°F to 175°F (0°C to 80°C)	
Piston Drain	32°F to 125°F (6°C to 52°C)	
Port Size	NPT	1/8, 1/4
Standard Filtration	Micron	(B) 1.0, (C) 0.01 (D) 0.003 ppm / wt**
Weight	.41 lb. (.18 kg)	

* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).
**Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

“M” Series Coalescing Filters, with Type “B” 1 micron elements: All Wilkerson Type “M” Oil Removal (Coalescing) Filters with Type “B” 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

“M” Series Coalescing Filters, with Type “C” 0.01 micron elements: All Wilkerson Type “M” Oil Removal (Coalescing) Filters with Type “C” 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

“M” Series Adsorption Filters, with Type “D” 0.003 micron activated carbon elements: All Wilkerson Type “M” adsorption filters with Type “D” 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

Materials of Construction

Body	Zinc
Bowls – Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Deflector, Element Holder & Baffle	Plastic
Drains	
Manual Drain – Body & Stem Seals	Plastic Nitrile
Piston Drain – Piston & Seals Stem, Seat, Adaptor & Washers	Nitrile Aluminum
Filter Element	Plastic
Seals	Nitrile

= “Most Popular”

Replacement Bowl Kits

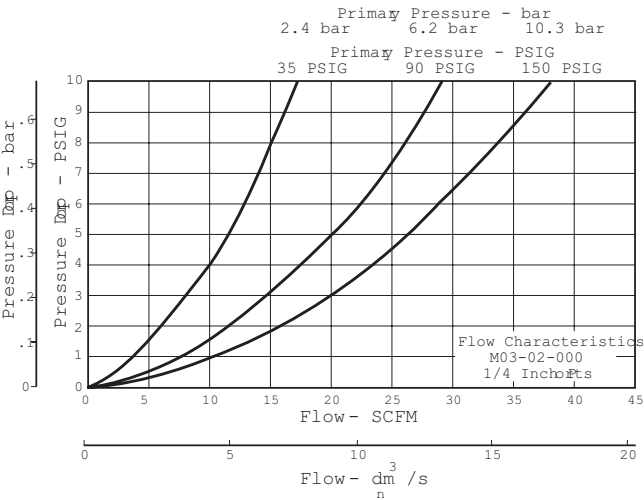
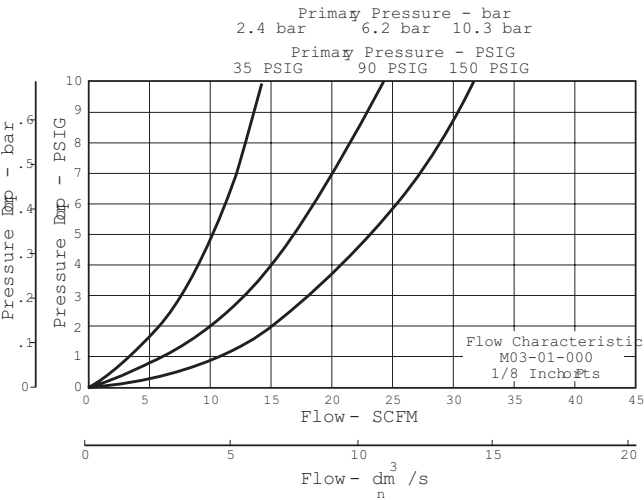
- Metal Bowl –
- Manual DrainPS451B
- Piston DrainPS447B
- Plastic Bowl –
- Manual DrainPS404
- Piston DrainPS408B

Replacement Element Kits

- Type “B”, 1.0 MicronPS456
- Type “C”, 0.01 MicronPS446
- Type “D”, Oil Vapor RemovingPS452

Accessories

- Mounting Bracket Kit PS417B

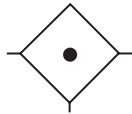


Ordering Information

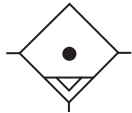
Model Type	Port Size	Polycarbonate Bowl / “C” Element	Metal Bowl / “C” Element	Polycarbonate Bowl / “B” Micron Element	Polycarbonate Bowl / “D” Element
Manual Drain	1/8	M03-01-000	M03-01-M00	M03-01-S00	M03-01-X00
	1/4	M03-02-000	M03-02-M00	M03-02-S00	M03-02-X00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M08



Coalescing Filter



Auto Drain



Features

- High-efficiency Removal of Water, Oil Aerosols, and Solid Particulate Contaminants Down to 0.01 ppm / wt with Minimum Pressure Drop
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Bowl Guard
- Quick-disconnect Bowl

Specifications

Flow Capacity*

1.0 Micron Coalescing	12.0 SCFM (5.5 dm ³ /s, ANR)
0.01 Micron Coalescing	7.5 SCFM (3.6 dm ³ /s, ANR)
Activated Carbon Adsorber	12.7 SCFM (6 dm ³ /s, ANR)

Maximum Supply Pressure	Plastic Bowl	150 PSIG (10 bar)
	Metal Bowl	250 PSIG (17 bar)
Operating Temperature	Plastic Bowl	14° to 125°F (-10° to 52°C)
	Metal Bowl	14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G 1/4	
Bowl Capacity	0.4 oz	
Standard Filtration	Micron	(B) .5, (C) 0.01 (D) 0.003 ppm wt**
Weight	0.24 lb. (0.11 kg)	

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 3 PSIG (0.2 bar).

**Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

“M” Series Coalescing Filters, with Type “B” 0.5 micron elements: All Wilkerson Type “M” Oil Removal (Coalescing) Filters with Type “B” 0.5 micron elements exceed ISO Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

“M” Series Coalescing Filters, with Type “C” 0.01 micron elements: All Wilkerson Type “M” Oil Removal (Coalescing) Filters with Type “C” 0.01 micron elements exceed ISO Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

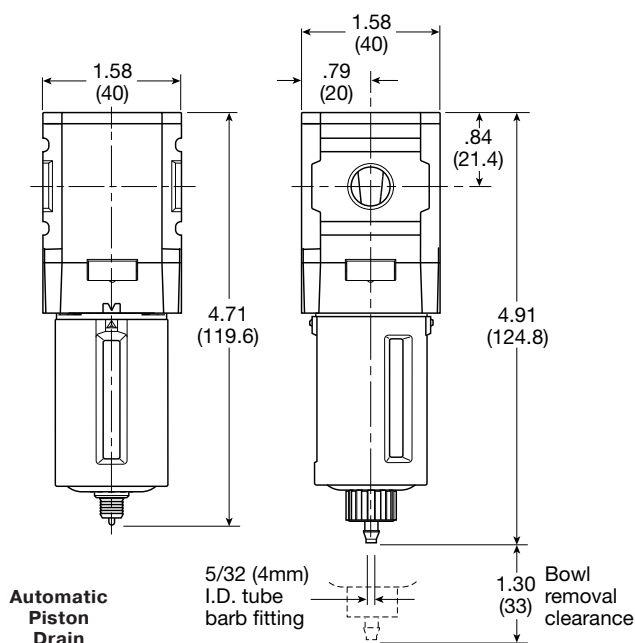
“M” Series Adsorption Filters, with Type “D” 0.003 micron activated carbon elements: All Wilkerson Type “M” adsorption filters with Type “D” 0.003 micron activated carbon elements exceed ISO Class 1 on maximum oil content (ppm/wt).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowl	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Filter Element	Type “B”, “C” Type “D”	Borosilicate Cloth Activated Carbon
Seals	Nitrile	

Notes: To optimize the life of the coalescing element, it is advisable to install a pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of the adsorber element, it is advisable to install a coalescing 0.01 micron filter upstream of the adsorber filter.



Inches (mm)

Manual
Drain

= “Most Popular”

Replacement Bowl Kits

- Metal Bowl, Manual Drain GRP-96-714
- Plastic Bowl / Bowl Guard, Manual Drain..... GRP-96-712

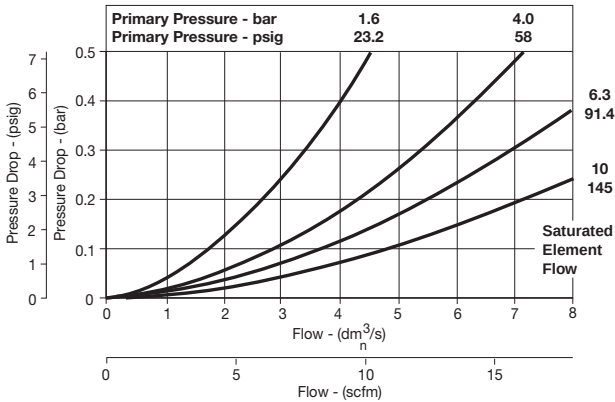
Replacement Element Kits

- Type “B”, 0.5 MicronMSP-96-732
- Type “C”, 0.01 MicronMTP-96-649
- Type “D”, 0.003 Micron, Activated Carbon..... MXP-96-222

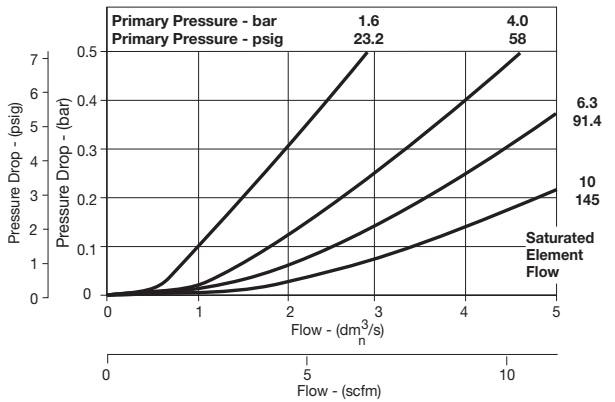
Accessories

- Automatic Piston Drain..... GRP-96-716
- Wall Mounting Bracket –
- C-Type..... GPA-97-010
- T-Type GPA-96-737

M08 1/4" Filter, 1.0 Micron



M08 1/4" Filter, 0.01 Micron

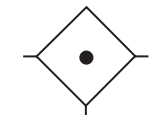


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / C Element	Plastic Bowl / Bowl Guard / B Element	Plastic Bowl / Bowl Guard / D Element	Metal Bowl / C Element	Metal Bowl / B Element	Metal Bowl / D Element
Manual Drain	1/4	M08-02-CK00B	M08-02-BK00B	M08-02-DK00B	M08-02-CL00B	M08-02-BL00B	M08-02-DL00B
Automatic Piston Drain	1/4	M08-02-CR00B	M08-02-BR00B	M08-02-DR00B	M08-02-CS00B	M08-02-BS00B	M08-02-DS00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M18



Coalescing Filter

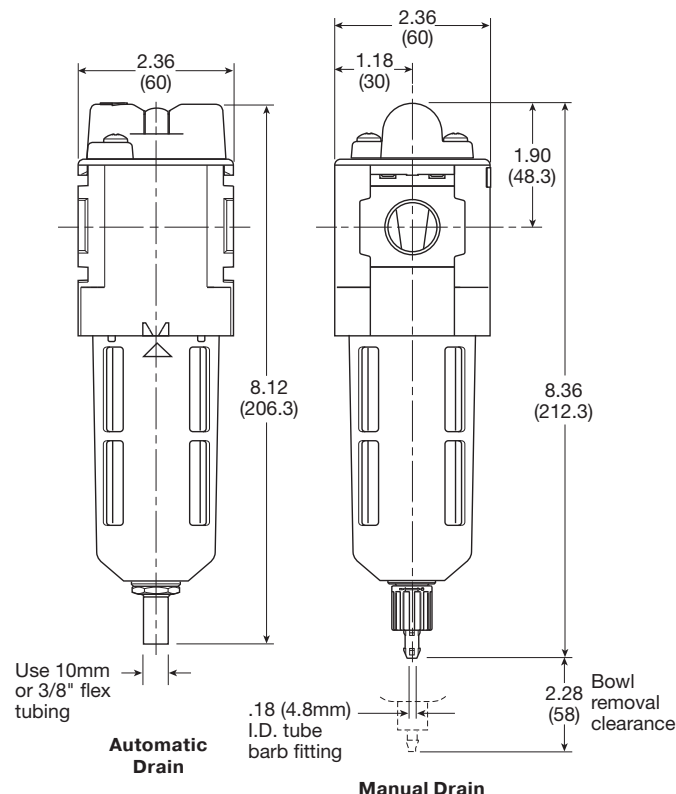


Auto Drain



Features

- High-efficiency Removal of Water, Oil Aerosols, and Solid Particulate Contaminants Down to 0.01 ppm / wt with Minimum Pressure Drop
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Bowl Guard
- Quick-disconnect Bowl



Inches (mm)

Specifications

Flow Capacity*

1.0 Micron Coalescing	53 SCFM (25 dm ³ /s, ANR)
0.01 Micron Coalescing	36 SCFM (17 dm ³ /s, ANR)
Activated Carbon Adsorber	85 SCFM (40 dm ³ /s, ANR)

Maximum Supply Pressure	Plastic Bowl	150 PSIG (10 bar) [†]
	Metal Bowl w/ DPI	150 PSIG (10 bar) [†]
	Metal Bowl w/o DPI	250 PSIG (17 bar) [†]

Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)

Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
-----------	--------------	---------------

Bowl Capacity	1.72 oz
---------------	---------

Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 ppm wt**
---------------------	--------	---

Weight	0.71 lb (0.32 kg)
--------	-------------------

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 3 PSIG (0.2 bar).

** Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

† Without pressure indicator — max. supply pressure for metal bowl version is 250 PSIG (17.2 bar).

"M" Series Coalescing Filters, with Type "B" 0.5 micron

elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron

elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" 0.003 micron

activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowl	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Filter Element	Type "B", "C" Type "D"	Borosilicate Cloth Activated Carbon
Seals	Nitrile	
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Notes: To optimize the life of the coalescing element, it is advisable to install a pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of the adsorber element, it is advisable to install a coalescing 0.01 micron filter upstream of the adsorber filter.

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Automatic Float Drain	GRP-96-637
Metal Bowl with Sight Gauge, Manual Drain	GRP-96-636
Plastic Bowl – Bowl Guard, Auto Drain	GRP-96-635
Bowl Guard, Manual Drain	GRP-96-634

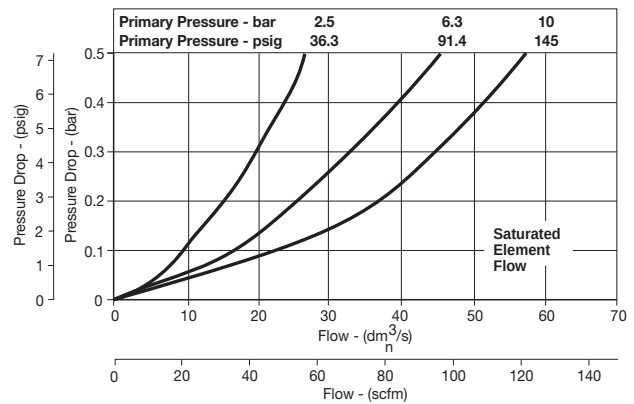
Replacement Element Kits

Type "B", 0.5 Micron	MSP-96-647
Type "C", 0.01 Micron	MTP-96-646
Type "D", 0.003 Micron Activated Carbon	MXP-96-650

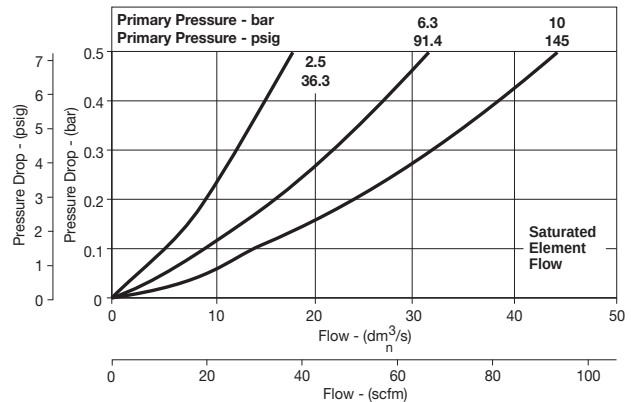
Accessories

Automatic Drain – Fluorocarbon	GRP-95-981
Nitrile	GRP-95-973
DPI Replacement Kit	DP8-01-000
Electronic DPI Conversion Kit	GRP-96-823
(Converts visual DPI to electronic DPI)	
Electronic DPI Replacement Kit	GRP-96-824
Manual Drain	GRP-96-685
Sight Gauge Kit	GRP-96-825
Wall Mounting Bracket – L-Type	GPA-96-604
T-Type	GPA-96-602

M18 1/2" Filter, 1.0 Micron



M18 1/4" Filter, 0.01 Micron

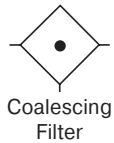


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / C Element	Plastic Bowl / Bowl Guard / B Element	Plastic Bowl / Bowl Guard / D Element	Metal Bowl / Sight Gauge / C Element	Metal Bowl / Sight Gauge / B Element	Metal Bowl / Sight Gauge / D Element
Manual Drain	1/4	M18-02-CK00B	M18-02-BK00B	M18-02-DK00B	M18-02-CL00B	M18-02-BL00B	M18-02-DL00B
	3/8	M18-03-CK00B	M18-03-BK00B	M18-03-DK00B	M18-03-CL00B	M18-03-BL00B	M18-03-DL00B
	1/2	M18-04-CK00B	M18-04-BK00B	M18-04-DK00B	M18-04-CL00B	M18-04-BL00B	M18-04-DL00B
Automatic Drain	1/4	M18-02-CG00B	M18-02-BG00B	N/A	M18-02-CH00B	M18-02-BH00B	N/A
	3/8	M18-03-CG00B	M18-03-BG00B	N/A	M18-03-CH00B	M18-03-BH00B	N/A
	1/2	M18-04-CG00B	M18-04-BG00B	N/A	M18-04-CH00B	M18-04-BH00B	N/A

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

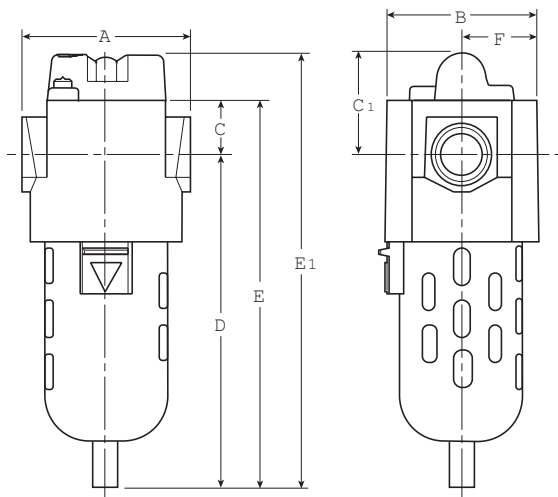
Coalescing Filter M16

 = "Most Popular"


M16-02-000

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator Standard



Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁	F
Standard Unit M16-XX-000		3.00 (76)	2.60 (66)	1.00 (25.4)	1.83 (46.5)	5.67 (144)	6.67 (169)	7.50 (190.5)	1.30 (33)
Automatic Drain M16-XX-F00		3.00 (76)	2.60 (66)	1.00 (25.4)	1.83 (46.5)	5.81 (148)	6.81 (173)	7.64 (190.5)	1.30 (33)

Specifications

Flow Capacity*	1/4	37.0 SCFM (17.5 dm ³ /s)
	3/8	44.7 SCFM (21.0 dm ³ /s)
	1/2	46.1 SCFM (21.7 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Bowl Capacity	2.7 oz	
Standard Filtration Micron	(B) 0.5, (C) 0.01	
	(D) 0.003 ppm / wt**	
Weight	1.8 lb.(0.8 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO Class 2** for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO Class 1** for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO Class 1** on maximum oil content (ppm/wt).

Materials of Construction

Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Element Retainer	Brass Stud	
Filter Elements	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals	Fluorocarbon	

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –

Automatic Drain	FRP-95-950
Manual Drain	FRP-95-178

Plastic Bowl –

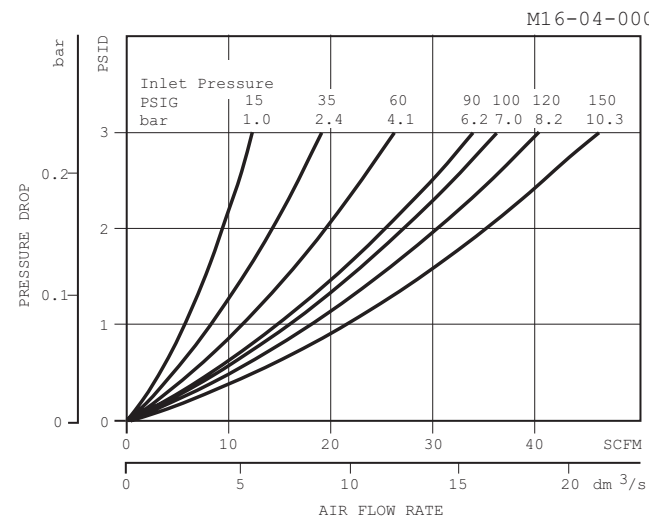
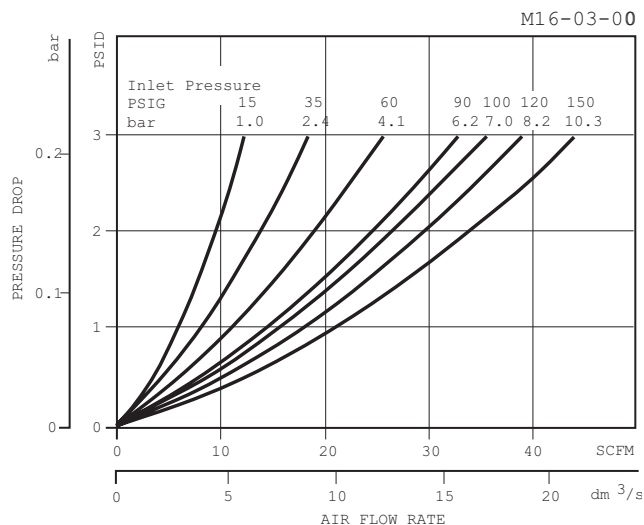
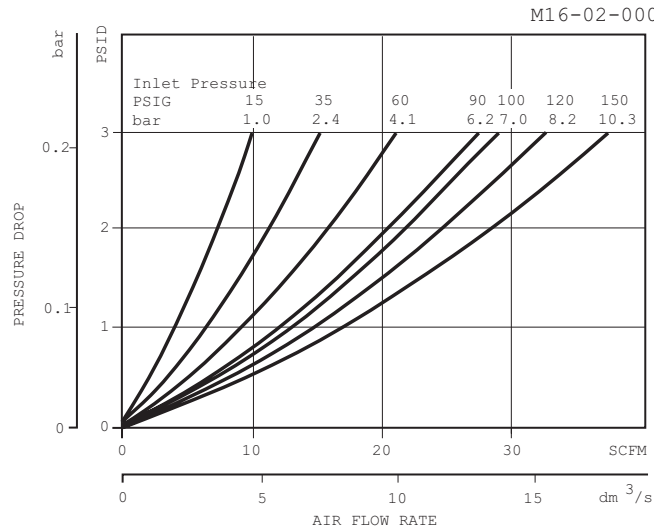
Bowl Guard, Auto Drain	FRP-95-015
Bowl Guard, Manual Drain	FRP-95-014
Manual Drain	FRP-95-017

Replacement Element Kits

Type "B", 0.5 Micron	MSP-95-988
Type "C", 0.01 Micron	MTP-95-548
Type "D", Oil Vapor Removing	MXP-95-987

Accessories

Automatic Mechanical Drain.....	GRP-95-973
Cap, Differential Pressure Indicator – For pressures over 150 PSIG.....	GRP-95-020
Differential Pressure Indicator	DP2-02-000
Manual Drain.....	FRP-95-610
Sight Gauge Kit	GRP-95-079
Wall Mounting Bracket, L-Type.....	GPA-95-016

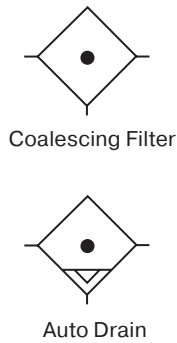


Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / Bowl Guard / "B" Element	Polycarbonate Bowl / Bowl Guard / "D" Element (No DPI)
Manual Drain	1/4	M16-02-000	M16-02-M00	M16-02-S00	M16-02-X00
	3/8	M16-03-000	M16-03-M00	M16-03-S00	M16-03-X00
	1/2	M16-04-000	M16-04-M00	M16-04-S00	M16-04-X00
Automatic Drain	1/4	M16-02-F00	M16-02-FM0	M16-02-FS0	—
	3/8	M16-03-F00	M16-03-FM0	M16-03-FS0	—
	1/2	M16-04-F00	M16-04-FM0	M16-04-FS0	—

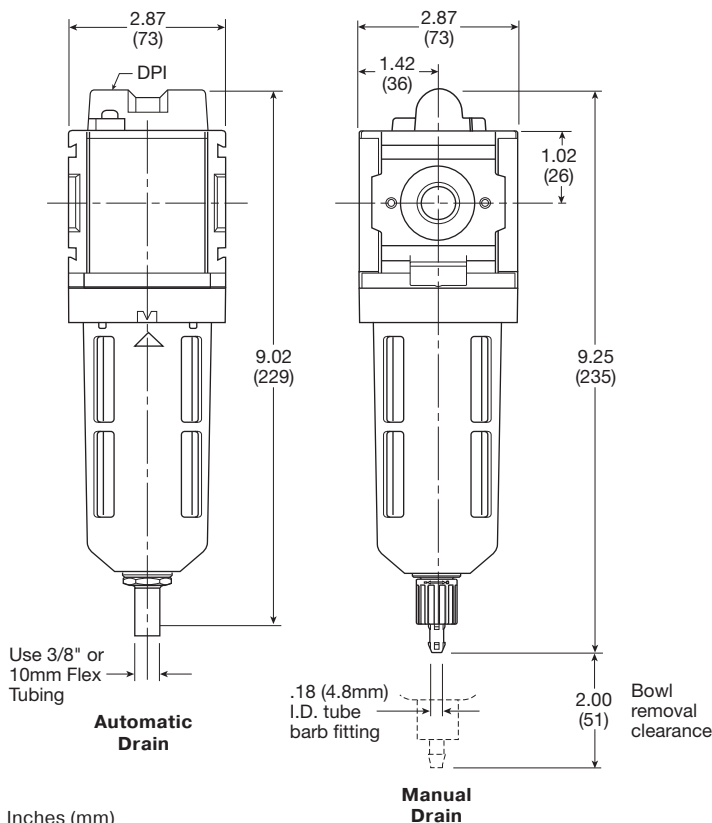
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M28



Features

- High-efficiency Removal of Water, Oil Aerosols, and Solid Particulate Contaminants Down to 0.01 ppm / wt with Minimum Pressure Drop
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Bowl Guard
- Quick-disconnect Bowl



Specifications

Flow Capacity*		
1.0 Micron Coalescing		68 SCFM (32 dm ³ /s, ANR)
0.01 Micron Coalescing		42 SCFM (20 dm ³ /s, ANR)
Activated Carbon Adsorber		72 SCFM (34 dm ³ /s, ANR)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)†
	Metal Bowl	150 PSIG (10.3 bar)†
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Bowl Capacity		2.87 oz
Standard Filtration Micron		(B) 0.5, (C) 0.01
		(D) 0.003 ppm wt**
Weight		1.10 lb. (0.5 kg)

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 3 PSIG (0.2 bar).

** Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type C filter.

† Without pressure indicator — max. supply pressure for metal bowl version is 250 PSIG (17.2 bar)

“M” Series Coalescing Filters, with Type “B” 0.5 micron elements: All Wilkerson Type “M” Oil Removal (Coalescing) Filters with Type “B” 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

“M” Series Coalescing Filters, with Type “C” 0.01 micron elements: All Wilkerson Type “M” Oil Removal (Coalescing) Filters with Type “C” 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

“M” Series Adsorption Filters, with Type “D” 0.003 micron activated carbon elements: All Wilkerson Type “M” adsorption filters with Type “D” 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Filter Element	Type “B”, “C” Type “D”	Borosilicate Cloth Activated Carbon
Seals	Nitrile	
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Notes: To optimize the life of the coalescing element, it is advisable to install a pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of the adsorber element, it is advisable to install a coalescing 0.01 micron filter upstream of the adsorber filter.

Inches (mm)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Automatic Float Drain	GRP-96-645
Metal Bowl with Sight Gauge, Manual Drain	GRP-96-644
Plastic Bowl – Bowl Guard, Auto Drain	GRP-96-643
Bowl Guard, Manual Drain	GRP-96-642

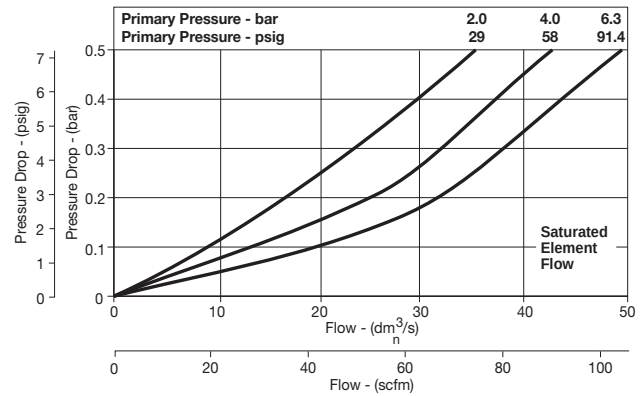
Replacement Element Kits

Type "B", 0.5 Micron	MSP-96-649
Type "C", 0.01 Micron	MTP-96-648
Type "D", 0.003 Micron Activated Carbon	MXP-96-651

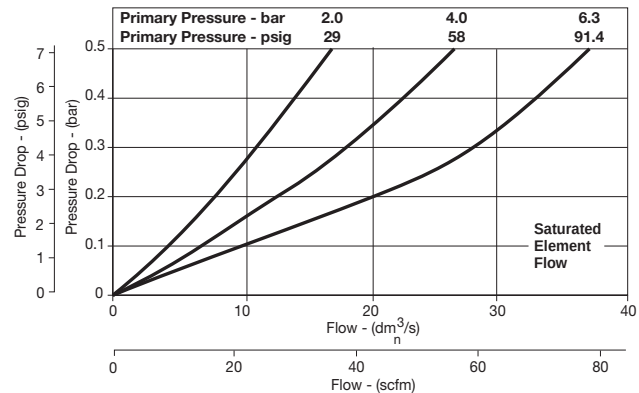
Accessories

Automatic Drain – Fluorocarbon	GRP-95-981
Nitrile	GRP-95-973
DPI Replacement Kit	DP8-01-000
Electronic DPI Conversion Kit	GRP-96-823
(Converts visual DPI to electronic DPI)	
Electronic DPI Replacement Kit	GRP-96-824
Manual Drain	GRP-96-685
Sight Gauge Kit	GRP-96-825
Wall Mounting Bracket– L-Type	GPA-96-605
T-Type	GPA-96-602

M28 3/4" Filter, 1.0 Micron



M28 3/4" Filter, 0.01 Micron

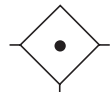
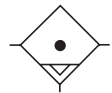


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / C Element	Plastic Bowl / Bowl Guard / B Element	Plastic Bowl / Bowl Guard / D Element	Metal Bowl / Sight Gauge / C Element	Metal Bowl / Sight Gauge / B Element	Metal Bowl / Sight Gauge / D Element
Manual Drain	3/8	M28-03-CK00B	M28-03-BK00B	M28-03-DK00B	M28-03-CL00B	M28-03-BL00B	M28-03-DL00B
	1/2	M28-04-CK00B	M28-04-BK00B	M28-04-DK00B	M28-04-CL00B	M28-04-BL00B	M28-04-DL00B
	3/4	M28-06-CK00B	M28-06-BK00B	M28-06-DK00B	M28-06-CL00B	M28-06-BL00B	M28-06-DL00B
Automatic Drain	3/8	M28-03-CG00B	M28-03-BG00B	N/A	M28-03-CH00B	M28-03-BH00B	N/A
	1/2	M28-04-CG00B	M28-04-BG00B	N/A	M28-04-CH00B	M28-04-BH00B	N/A
	3/4	M28-06-CG00B	M28-06-BG00B	N/A	M28-06-CH00B	M28-06-BH00B	N/A

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M26

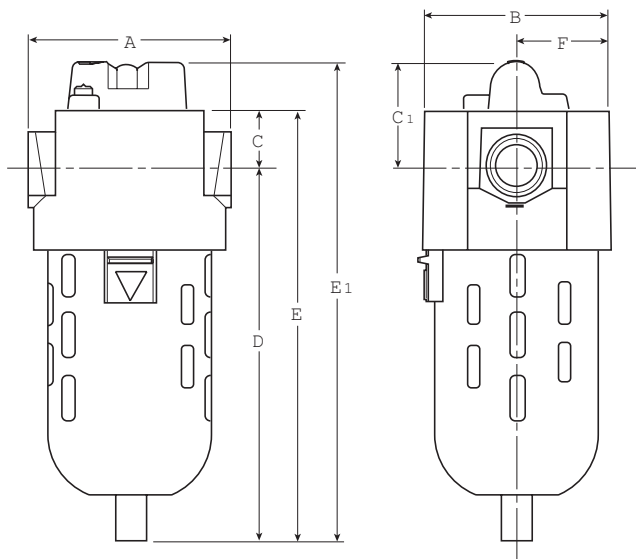
 = "Most Popular"
Coalescing
Filter

Auto Drain

**M26-02-000**

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator



Specifications

Flow Capacity*	1/4	55.0 SCFM (25.9 dm ³ /s)
	3/8	65.5 SCFM (30.9 dm ³ /s)
	1/2	79.5 SCFM (37.5 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Standard Filtration	Micron	(B) 0.5, (C) 0.01
		(D) 0.003 ppm / wt**
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Bowl Capacity	1.7 oz	
Weight	2.4 lb. (1.1 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @ 100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

Materials of Construction

Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Element Retainer	Brass Stud	
Filter Elements	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals	Fluorocarbon	

Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁	F
Standard Unit M26-XX-000		3.30 (84)	3.00 (76)	1.00 (25.4)	1.83 (46.5)	6.40 (162.6)	7.40 (188)	8.23 (209)	1.50 (38)
Automatic Drain M26-XX-F00		3.30 (84)	3.00 (76)	1.00 (25.4)	1.83 (46.5)	6.54 (166)	7.54 (191.5)	8.37 (212.5)	1.50 (38)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
 Manual Drain GRP-95-930
 Auto Drain..... GRP-95-960

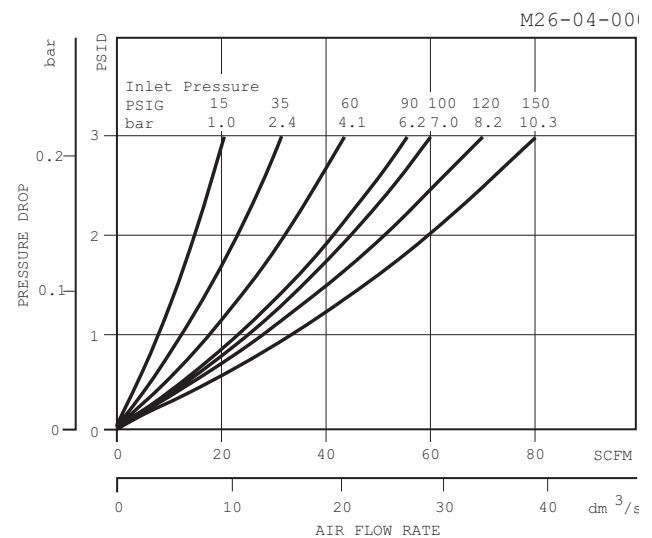
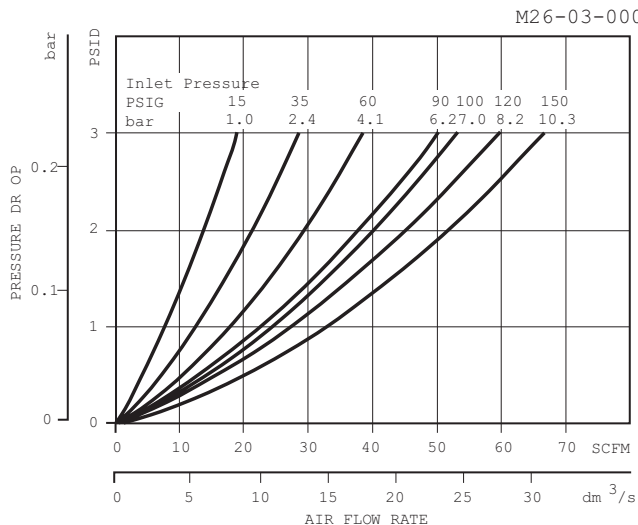
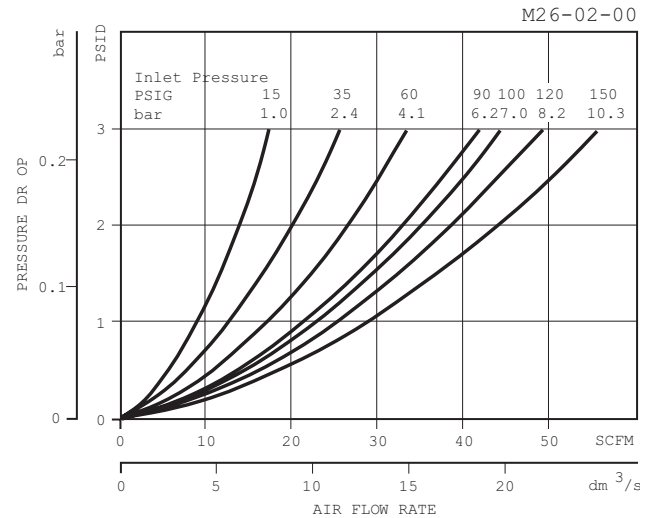
Plastic Bowl –
 Manual Drain GRP-95-929
 Bowl Guard, Manual Drain GRP-95-935
 Bowl Guard, Auto Drain GRP-95-948

Replacement Element Kits

Type "B", 0.5 Micron MSP-95-989
 Type "C", 0.01 Micron MTP-95-549
 Type "D", Oil Vapor Removing MXP-95-540

Accessories

Automatic Mechanical Drain..... GRP-95-973
 Cap, Differential Pressure Indicator –
 For pressures over 150 PSIG..... GRP-95-020
 Differential Pressure Indicator DP2-02-000
 Manual Flex-Tip FRP-95-610
 Sight Gauge Kit GRP-95-079
 Wall Mounting Bracket, L-Type..... GPA-95-946

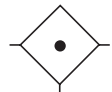
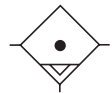


Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / Bowl Guard / "B" Element	Polycarbonate Bowl / Bowl Guard / "D" Element (No DPI)
Manual Drain	1/4	M26-02-000	M26-02-M00	M26-02-S00	M26-02-X00
	3/8	M26-03-000	M26-03-M00	M26-03-S00	M26-03-X00
	1/2	M26-04-000	M26-04-M00	M26-04-S00	M26-04-X00
Automatic Drain	1/4	M26-02-F00	M26-02-FM0	M26-02-FS0	—
	3/8	M26-03-F00	M26-03-FM0	M26-03-FS0	—
	1/2	M26-04-F00	M26-04-FM0	M26-04-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M21

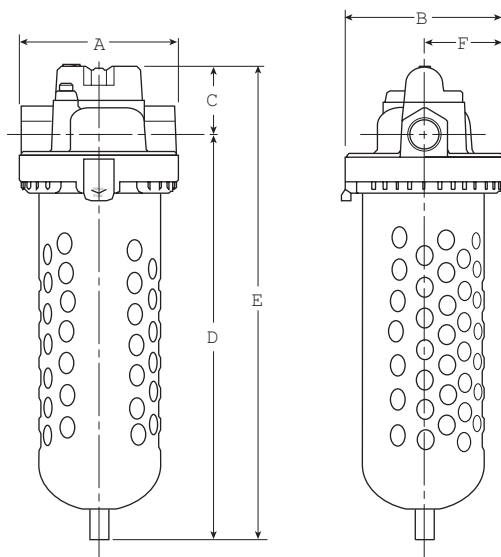
 = "Most Popular"
Coalescing
Filter

Auto Drain

**M21-03-000**

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator



Specifications

Flow Capacity*	3/8	95.4 SCFM (45.0 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	3/8
Bowl Capacity		3.9 oz
Standard Filtration	Micron	(B) 0.5, (C) 0.01 (D) 0.003 ppm / wt**
Weight		3.7 lb. (1.68 kg)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO Class 2** for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO Class 1** for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO Class 1** on maximum oil content (ppm/wt).

Materials of Construction

Body	Zinc	
Bowl	Polycarbonate	
Element Retainer	Brass Stud	
Filter Elements	Type "B", "C" Type "D"	Borosilicate Cloth Activated Carbon
Seals	Fluorocarbon	

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit M21-03-000		3.70 (94)	3.79 (96.5)	1.70 (43.2)	9.20 (233.7)	10.90 (276.9)	1.89 (48.1)
Automatic Drain M21-03-F00		3.70 (94)	3.79 (96.5)	1.70 (43.2)	9.58 (237)	11.22 (280)	1.89 (48.1)

= "Most Popular"

Replacement Bowl Kits

Plastic Bowl –

Bowl Guard, Manual DrainFRP-95-722

Bowl Guard, Automatic DrainMRP-95-722

Replacement Element Kits

Type "B", 0.5 MicronMSP-95-990

Type "C", 0.01 MicronMTP-95-550

Type "D", Oil Vapor RemovingMXP-95-537

Accessories

Automatic DrainGRP-95-973

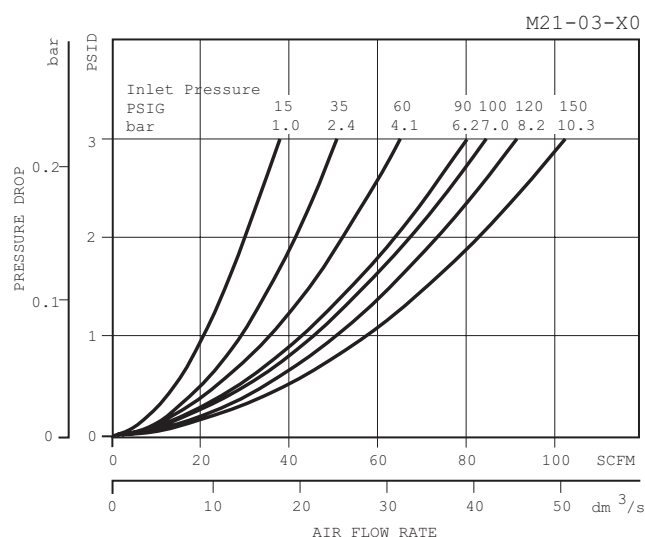
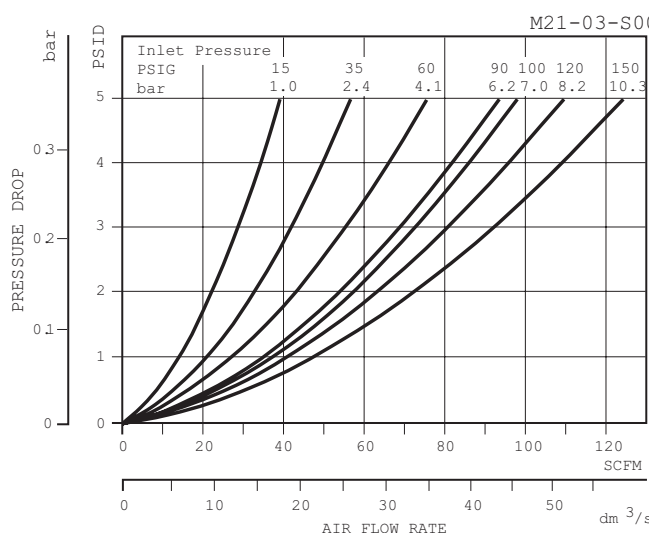
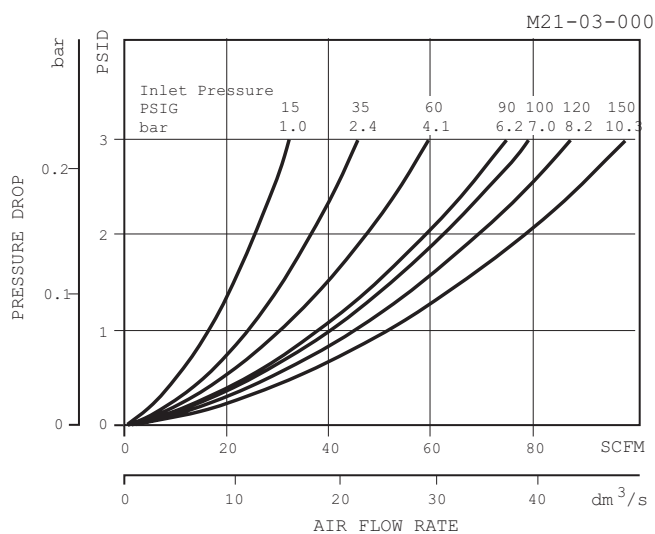
Cap, Differential Pressure Indicator –

For pressures over 150 PSIGGRP-95-020

Differential Pressure IndicatorDP2-02-000

Manual Flex-TipFRP-95-610

Wall Mounting Bracket, U-bolt Pipe ClampGRP-95-734



Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element
Manual Drain	3/8	M21-03-000
Automatic Drain	3/8	M21-03-F00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M90



 = "Most Popular"

- Extended high efficiency filter element provides greater filtration surface area.
- Integral 3/4" or 1" ports (BSPP & NPT)
- Removes liquid aerosols and sub micron particles
- Oil free air for critical applications, such as air gauging, pneumatic instrumentation and control
- Adsorber activated carbon element removes oil vapors and most hydrocarbons
- Robust but lightweight aluminum construction

Notes: To optimize the life of the coalescing element, it is advisable to install a F90 pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of the adsorber element, it is advisable to install a 90 Series coalescing 0.01 micron filter upstream of the adsorber filter.

Series		Thread type*		Port size		Element		Bowl / drain type	
Coalescing Filter	M90	NPT	0	3/4	6	C	0.01 micron element with DPI	H	Metal bowl / sight gauge & auto drain
		BSPP	C	1	8			L	Metal bowl / sight gauge / manual & semi auto drain

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Ordering Information

Port size	Description	Flow† scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Bowl capacity cm³ (oz)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number†
3/4"	Coalescing filter 0.01 micron, combined manual / semi auto drain	275	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	340 (13.4)	90 (3.5)	94 (3.7)	1.6 (3.5)	M90-06-CL00
3/4"	Coalescing filter 0.01 micron, auto drain	275	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	340 (13.4)	90 (3.5)	94 (3.7)	1.6 (3.5)	M90-06-CH00
1"	Coalescing filter 0.01 micron, combined manual / semi auto drain	307	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	340 (13.4)	90 (3.5)	94 (3.7)	1.6 (3.5)	M90-08-CL00
1"	Coalescing filter 0.01 micron, auto drain	307	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	340 (13.4)	90 (3.5)	94 (3.7)	1.6 (3.5)	M90-08-CH00

† Standard part numbers shown in bold. For other models refer to Options chart above.

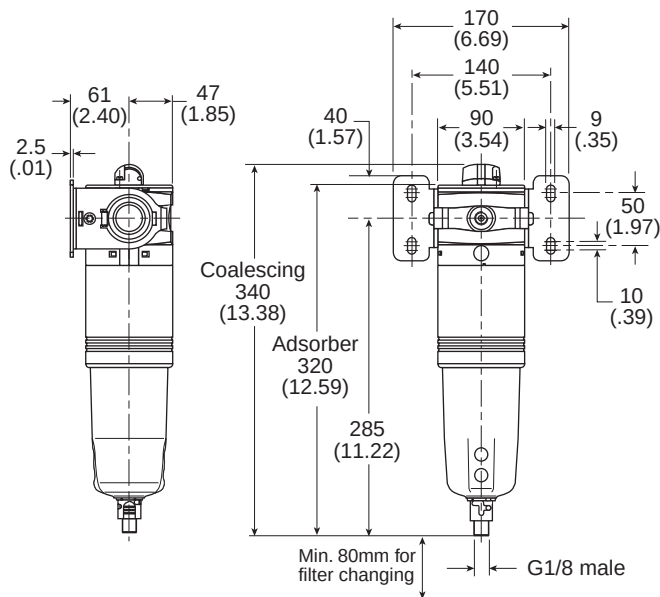
‡ Flow with 6.3 bar (91.4 psig) inlet pressure and 0.5 (7.3 psig) pressure drop.

Specifications

Fluid	Compressed air
Maximum inlet pressure*	17.5 bar (254 psig)
Temperature range*	-10°C to 60°C (14°F to 140°F)
Media specifications (Coalescer):	
Coalescing efficiency	99.97% (0.3 to 0.6 micron particles)
Max. oil carryover	0.008 mg/m ³
Typical flow element @	
6.3 bar (91.4 psig) inlet pressure	0.01 micron element
and	1" port
0.5 bar (7.3 psig) pressure drop	307 scfm
Media specifications (Adsorber):	
Max. oil carryover (PPM w/w)	0.008 mg/m ³
Manual / semi-auto drain	Closed at 0.8 bar (11.6 psig) G1/8 thread male
Auto drain bowl pressure to close drain	0.8 bar (11.6 psig)
Operating range	0.8 bar (11.6 psig) to 17.5 bar (254 psig)
Bowl capacity	130 cm ³ (4.4 US oz)

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35.6°F).

Dimensions mm (inches)



Service kits

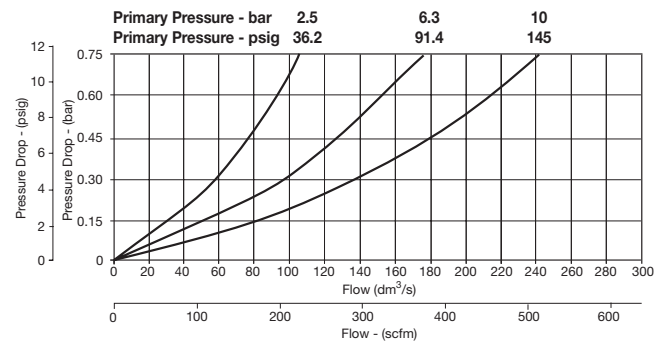
0.01 micron element kit.....	P3YKA00ESC
Adsorber element kit	P3YKA00ESA
Bowl kit with combined manual / semi auto drain.....	P3YKA00BSC
Bowl kit with auto drain	P3YKA00BSA
Differential pressure indicator kit	P3YKA00RQ

Material specifications

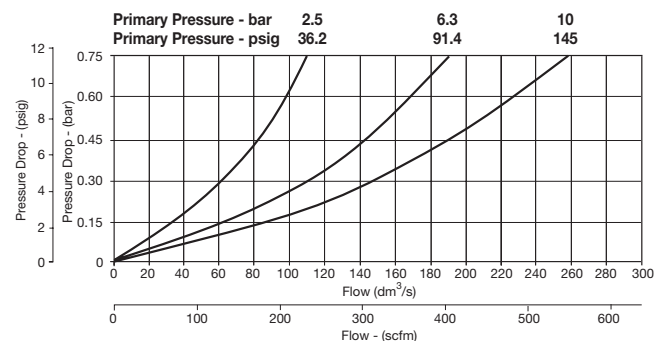
Body	Aluminum
Sight glass	Polypropylene
Filter cover	ABS
Coalescing element	Borosilicate & nano fibers
Top & bottom end cap (Coalescing)	Aluminum
Adsorber element	Activated carbon
Top & bottom end cap (Adsorber)	Glass filled nylon
Support cylinders	Grade 430 stainless steel
Support media	Polypropylene
Anti re-entrainment barrier	Polyester
Encapsulate	Epoxy resin / hardener
Seals	Nitrile NBR
Drains	Manual / semi-auto: Acetal
	Automatic: PA / Ø 10mm brass connection
Differential pressure indicator	
Body	Acetal
Internal parts	Acetal
Spring	Stainless steel
Seals	Nitrile NBR
Support plate	ABS
Screws	Steel / zinc plated

Flow characteristics

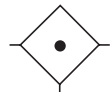
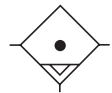
(3/4") 0.01 Micron Coalescing Filter Saturated



(1") 0.01 Micron Coalescing Filter Saturated



Coalescing Filter M30

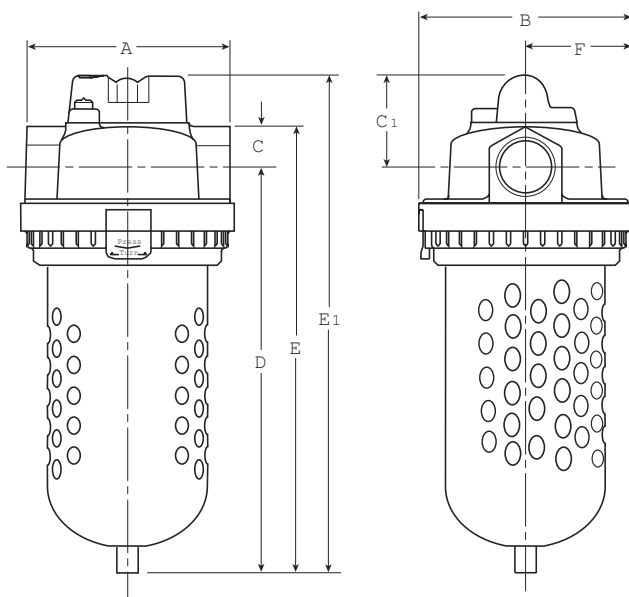
Coalescing
Filter

Auto Drain

**M30-04-000**

Features

- Manual Drain
- 0.01 Micron Rated Filter Element
- Quick-disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Differential Pressure Indicator



Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁	F
Standard Unit M30-XX-000		4.61 (117)	4.80 (122)	.94 (24)	1.77 (44.9)	9.13 (232)	10.07 (255.8)	10.90 (270)	2.40 (61)
Automatic Drain M30-XX-F00		4.61 (117)	4.80 (122)	.94 (24)	1.77 (44.9)	9.27 (235)	10.21 (259)	11.04 (273.5)	2.40 (61)
Metal Bowl M30-XX-M00		4.61 (117)	4.80 (122)	.94 (24)	1.77 (44.9)	8.73 (221.7)	9.67 (245.6)	10.50 (267)	2.40 (61)

Specifications

Flow Capacity*	1/2	123 SCFM (58.2 dm ³ /s)
	3/4	173 SCFM (81.0 dm ³ /s)
	1	203 SCFM (96.0 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G 1/2, 3/4, 1	
Bowl Capacity	2.0 oz	
Standard Filtration Micron	(B) 0.5, (C) 0.01	
	(D) 0.003 ppm / wt**	
Weight	5.4 lb. (2.4 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

"M" Series Coalescing Filters, with Type "B" 0.5 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

Materials of Construction

Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Element Retainer	Brass Stud	
Filter Elements	Type "B", "C"	Borosilicate Cloth
	Type "D"	Activated Carbon
Seals	Fluorocarbon	

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –
 Manual Drain FRP-95-593
 Auto Drain..... GRP-95-970

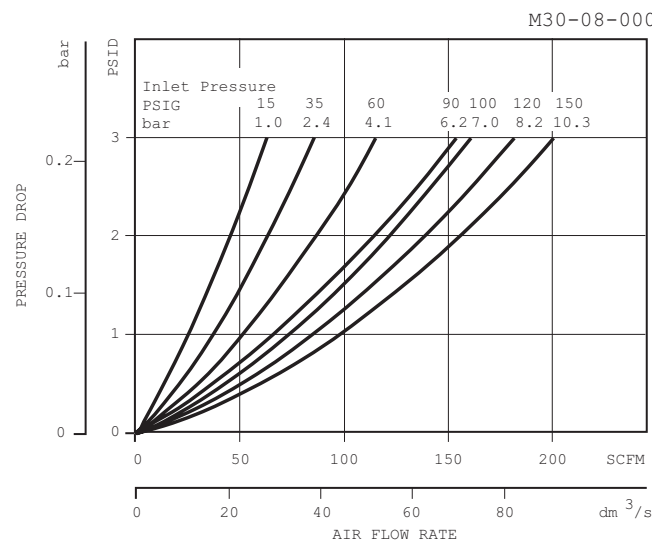
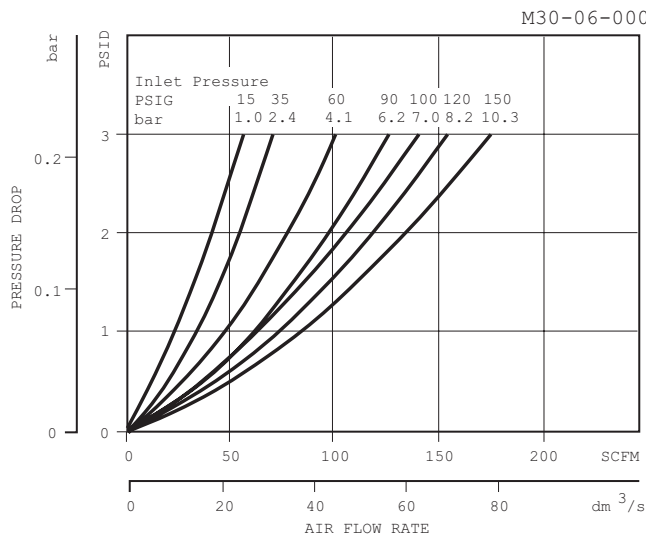
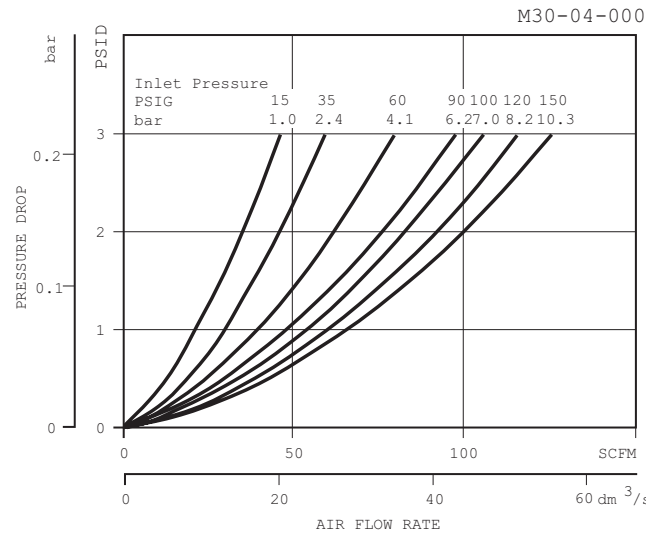
Plastic Bowl –
 Manual Drain FRP-96-315
 Bowl Guard, Manual Drain FRP-95-832
 Bowl Guard, Auto Drain FRP-95-775

Replacement Element Kits

Type "B", 0.5 Micron MSP-95-992
 Type "C", 0.01 Micron MTP-95-551
 Type "D", Oil Vapor Removing MXP-95-532

Accessories

Automatic Mechanical Drain..... GRP-95-973
 Cap, Differential Pressure Indicator –
 For pressures over 150 PSIG..... GRP-95-020
 Differential Pressure Indicator DP2-02-000
 Manual Flex-Tip FRP-95-610
 Sight Gauge Kit LRP-95-771
 Wall Mounting Bracket, U-Bolt Pipe Clamp..... GRP-95-734

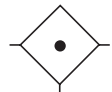
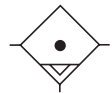


Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "C" Element	Metal Bowl / "C" Element	Polycarbonate Bowl / Bowl Guard / "B" Element	Polycarbonate Bowl / Bowl Guard / "D" Element (No DPI)
Manual Drain	1/2	M30-04-000	M30-04-M00	M30-04-S00	M30-04-X00
	3/4	M30-06-000	M30-06-M00	M30-06-S00	M30-06-X00
	1	M30-08-000	M30-08-M00	M30-08-S00	M30-08-X00
Automatic Drain	1/2	M30-04-F00	M30-04-FM0	M30-04-FS0	—
	3/4	M30-06-F00	M30-06-FM0	M30-06-FS0	—
	1	M30-08-F00	M30-08-FM0	M30-08-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter M35

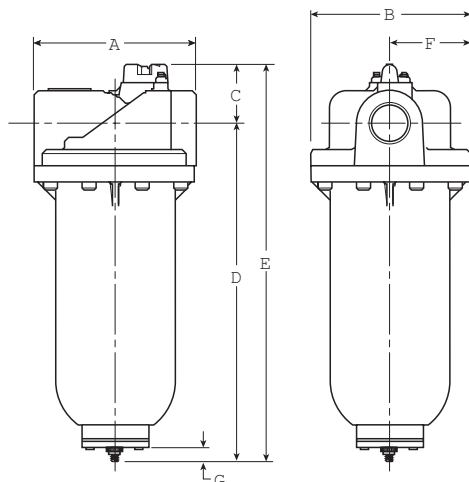
 = "Most Popular"
Coalescing
Filter

Auto Drain

**M35-0B-000**

Features

- Heavy-duty Cast Aluminum Housings to Withstand Operating Pressures Up to 250 PSIG †
- Differential Pressure Indicator to Eliminate the Guesswork of Element Replacement
- Differential Pressure Gauge Available, Order Separately, Kit DP3-01-000
- Unique Drain Mounting Plate Design Offers Trouble-free Method for Interchanging and Installing External Drains
- High-flow Filter Elements: Coalescing, 1 Micron and 0.01 Micron



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit M35-XX-F00		7.80 (198)	7.75 (197)	2.81 (71)	16.24 (412)	19.07 (484)	3.88 (99)	.55 (14)
Without Automatic Drain M35-XX-000		7.80 (198)	7.75 (197)	2.81 (71)	15.69 (398.5)	18.52 (470)	3.88 (99)	.55 (14)

Specifications

Flow Capacity*	1-1/2 2	710 SCFM (335 dm ³ /s) 710 SCFM (335 dm ³ /s)
Maximum Supply Pressure	without DPI and with Pressure Gauge with DPI	250 PSIG (17.2 bar)† 150 PSIG (10.3 bar)
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	1-1/2, 2
Bowl Capacity	13.9 oz	
Standard Filtration	Micron	(B1) 1.0, (C) 0.01 (D) 0.003 ppm / wt**
Weight	19.3 lb. (8.7 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop of 3 PSID (0.2 bar).

** Filtration temperature of 70°F (21°C) @100 PSIG (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

† Without Differential Pressure Indicator – Max. supply pressure is 250 PSIG (17.2 bar).

"M" Series Coalescing Filters, with Type "B1" 1.0 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "B1" 1.0 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and exceed Class 3 on maximum oil content (ppm/wt).

"M" Series Coalescing Filters, with Type "C" 0.01 micron elements: All Wilkerson Type "M" Oil Removal (Coalescing) Filters with Type "C" 0.01 micron elements **exceed ISO** Class 1 for maximum particle size and concentration of solid contaminants, and exceed Class 1 on maximum oil content (ppm/wt).

"M" Series Adsorption Filters, with Type "D" 0.003 micron activated carbon elements: All Wilkerson Type "M" adsorption filters with Type "D" 0.003 micron activated carbon elements **exceed ISO** Class 1 on maximum oil content (ppm/wt).

Materials of Construction

Body	Aluminum	
Bowls	Aluminum	
Filter Elements	Type "B1", "C" Type "D"	Borosilicate Cloth Activated Carbon
Seals	Fluorocarbon	
Stud	Plated Steel	

NOTE: Automatic internal float drain shown is included on M35 filters with F00 suffix only.
Models with 000 suffix include drain plate with tapped 1/2 NPT / BSPP-G drain port.

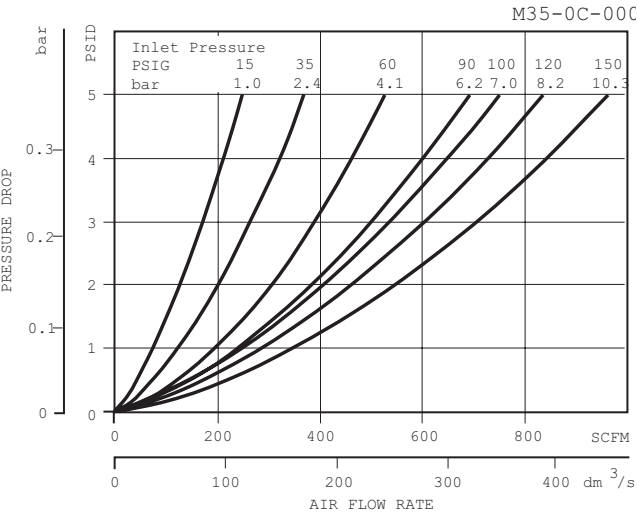
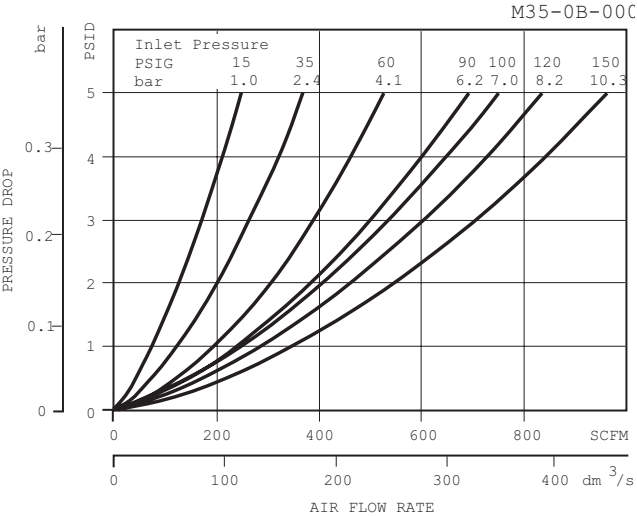
= “Most Popular”

Replacement Element Kits

- Type “B1”, 1.0 Micron.....MSP-95-502
- Type “C”, 0.01 MicronMTP-95-502
- Type “D”, Oil Vapor Removing.....MXP-95-502

Accessories

- Cap, Differential Pressure Indicator –
(For pressures over 150 PSIG)..... GRP-95-022
- Drain, Automatic, Internal, Fluorocarbon..... GRP-95-981
- Drain Plate Kit –
1/2 NPT Tapped Drain Port GRP-95-393
- Gauge, Differential Pressure..... DP3-01-000
- Indicator, Differential PressureDP2-02-001
- Manual Drain Kit
with 1/2" Drain Plate GRP-95-392



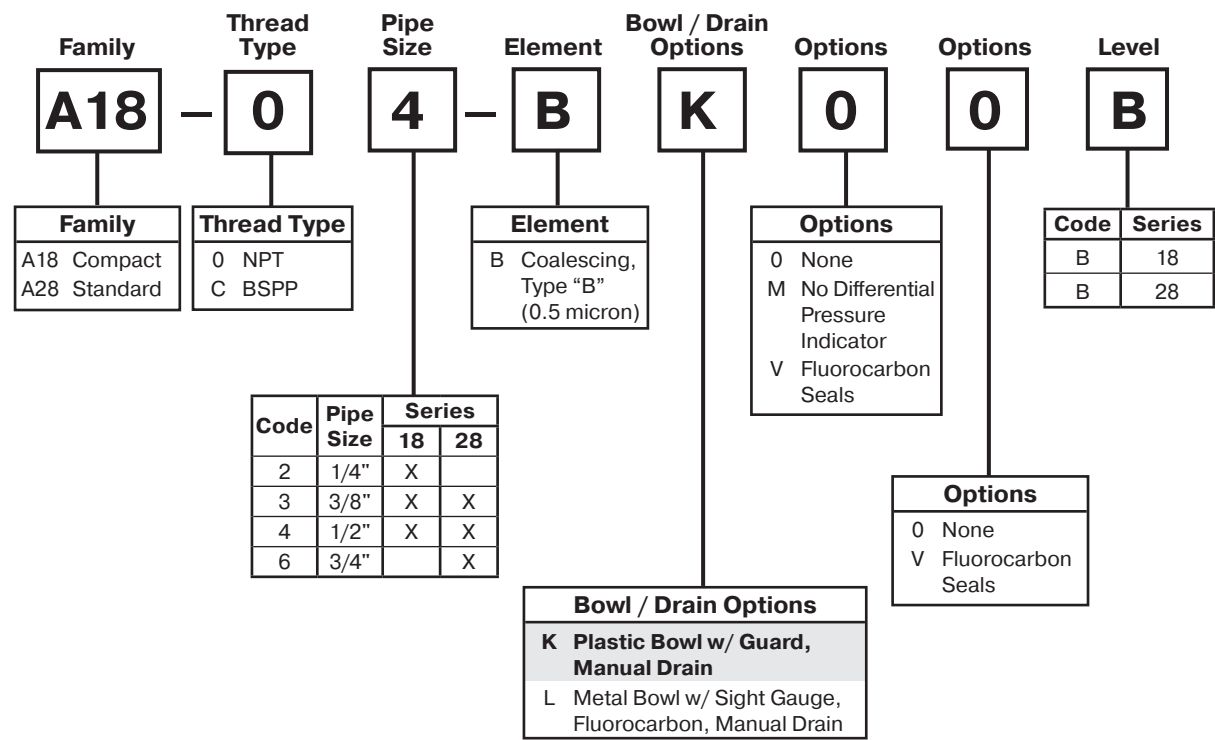
Ordering Information

Model Type	Port Size	Metal Bowl / “C” Element	Metal Bowl / “B1” Element	Metal Bowl / “D” Element
Manual Drain	1-1/2	M35-0B-000	M35-0B-S00	M35-0B-X00 (Includes 1/2 NPT / BSPP-G M35-0C-X00 Drain Plate)
	2	M35-0C-000	M35-0C-S00	
Automatic Drain	1-1/2	M35-0B-F00	M35-0B-FS0	—
	2	M35-0C-F00	M35-0C-FS0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Afterfilter Numbering System

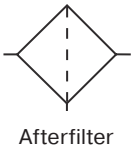
= "Most Popular"



NOTE:All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

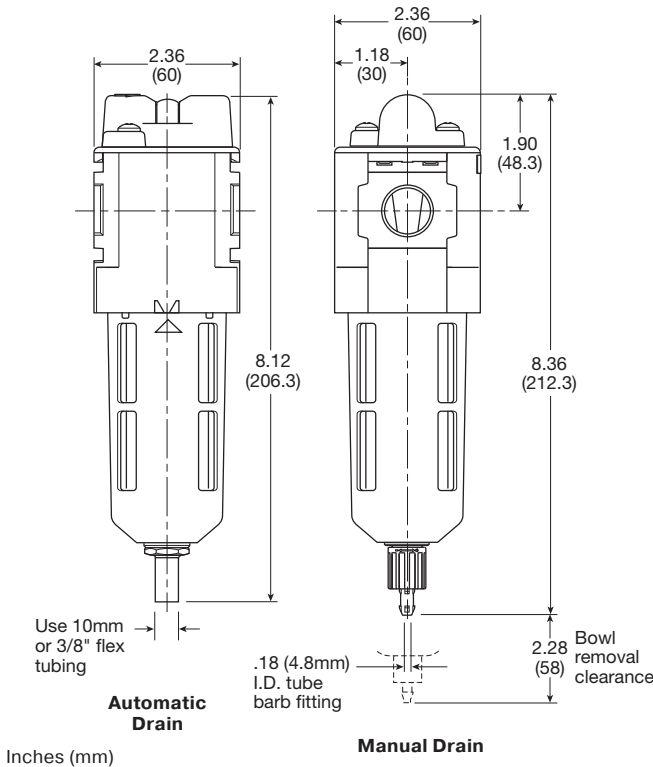
If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

Afterfilter
A18



Features

- Modern Design and Appearance
- 0.5 Micron Element
- Light Weight
- High Flow Capacity with Minimal Pressure Drop



Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "B" Element	Metal Bowl / Sight Gauge / "B" Element
Type "B" Element is Standard (Manual Drain)	1/4	A18-02-BK00B	A18-02-BL00B
	3/8	A18-03-BK00B	A18-03-BL00B
	1/2	A18-04-BK00B	A18-04-BL00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Specifications

Flow Capacity*	1/4	50 SCFM (23.6 dm ³ /s)
	3/8	60 SCFM (28.3 dm ³ /s)
	1/2	67 SCFM (31.6 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration	0.5 Micron	
Weight	0.71 lb. (0.32 kg)	

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 3 PSID (0.2 bar).

"A18" Series Afterfilters, with Type "B" 0.5 micron elements:
All Wilkerson Type "AF" Afterfilters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (ppm/wt).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Filter Element	Type "B"	Borosilicate Fiber
Seals	Nitrile	
Sight Gauge	Metal Bowl	Nylon

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Manual Drain	GRP-96-636
Plastic Bowl / Bowl Guard, Manual Drain	GRP-96-634
Plastic Bowl, Plastic Guard, No Drain	GRP-96-638

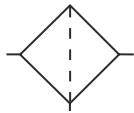
Replacement Element Kit

Type "B", 0.5 Micron	MSP-96-647
----------------------------	------------

Accessories

Wall Mounting Bracket –	
L-Type.....	GPA-96-604
T-Type	GPA-96-602

Afterfilter A28

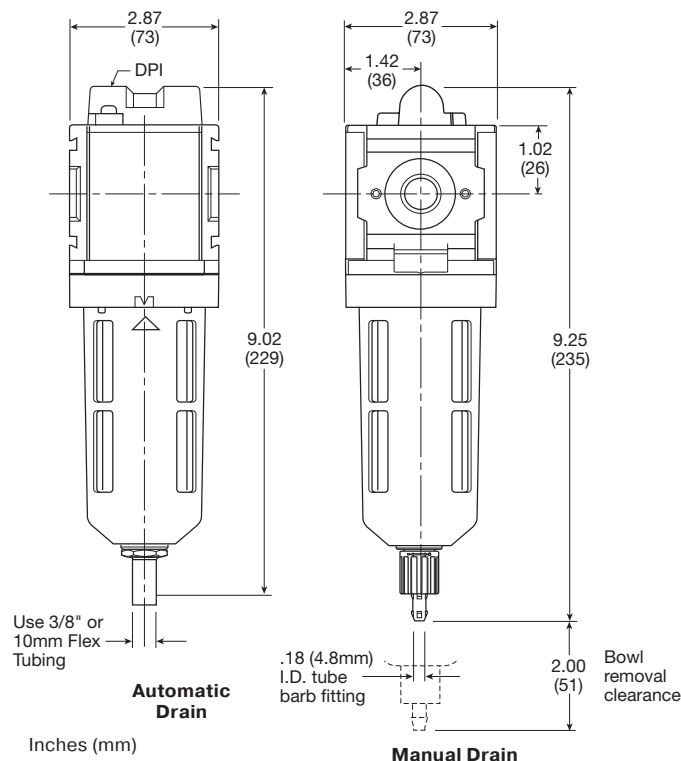


Afterfilter



Features

- Modern Design and Appearance
- 0.5 Micron Element
- Light Weight
- High Flow Capacity with Minimal Pressure Drop
- Bowl Guard
- Quick-Disconnect Bowl



Specifications

Flow Capacity*	3/8	82 SCFM (38.7 dm ³ /s)
	1/2	90 SCFM (42.5 dm ³ /s)
	3/4	98 SCFM (46.3 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Standard Filtration	0.5 Micron	
Weight	1.01 lb. (0.46 kg)	

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 3 PSID (0.2 bar).

"A28" Series Afterfilters, with Type "B" 0.5 micron elements:

All Wilkerson Type "AF" Afterfilters with Type "B" 0.5 micron elements **exceed ISO** Class 2 for maximum particle size and concentration of solid contaminants, and **exceed** Class 3 on maximum oil content (ppm/wt).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Filter Element	Type "B"	Borosilicate Fiber
Seals	Nitrile	
Sight Gauge	Metal Bowl	Nylon

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Manual Drain	GRP-96-644
Plastic Bowl / Bowl Guard, Manual Drain	GRP-96-642
Plastic Bowl, Plastic Guard, No Drain	GRP-96-652

Replacement Element Kit

Type "B", 0.5 Micron	MSP-96-649
----------------------------	------------

Accessories

Wall Mounting Bracket –	
L-Type	GPA-96-605
T-Type	GPA-96-602

Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard / "B" Element	Metal Bowl / Sight Gauge / "B" Element
Type "B" Element is Standard (Manual Drain)	3/8	A28-03-BK00B	A28-03-BL00B
	1/2	A28-04-BK00B	A28-04-BL00B
	3/4	A28-06-BK00B	A28-06-BL00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Exhaust Muffler F23

Exhaust Muffler Units

Part of an OSHA requirement is to keep sustained noise levels within acceptable specifications: 90 decibels (dBA) or less. Wilkerson's mufflers and oil reclassifiers keep these objectionable exhaust noises (air motors, control valves, etc.) within the OSHA specifications.

These units have only one inlet port.

F23-04-000

The contaminants in the exhaust flow are mechanically separated and twice filtered to 5 micron levels. The clean, muffled exhaust flows out of the unit under the metal hood on top.

Features:

- 5 Micron Rated Reusable Elements
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Low-Pressure Drop (Back Pressure)
- Removes Oily Aerosols from Exhaust Flows
- Transparent Bowls with Metal Bowl Guards Standard

Replacement Bowl Kits

Metal Bowl Guard, (for Plastic Bowl) GRP-95-804
 Metal Bowl, Brass Petcock FRP-95-612
 Metal Bowl / Sight Gauge, Brass Petcock GRP-95-613
 Plastic Bowl, Plastic Petcock Drain LRP-96-157
 Plastic Bowl / Bowl Guard, Plastic Petcock Drain. GRP-95-724

Replacement Element Kit

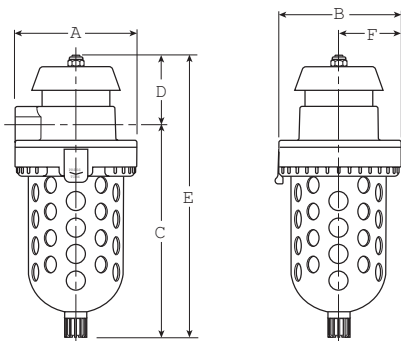
Type A", 5 Micron (Upper & Lower Elements) FRP-95-169

Replacement Kits

Clamp Ring Assembly GRP-95-154
 Manual Drain, Brass Petcock GRP-95-182
 O-ring, Bowl, Fluorocarbon (10 per kit) GRP-95-109
 O-ring, Bowl, Nitrile (10 per kit) GRP-95-257

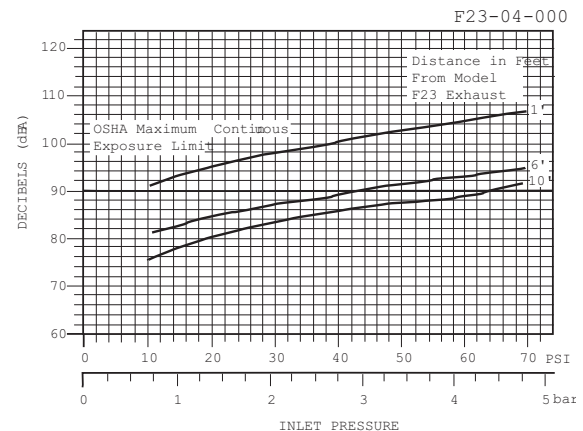
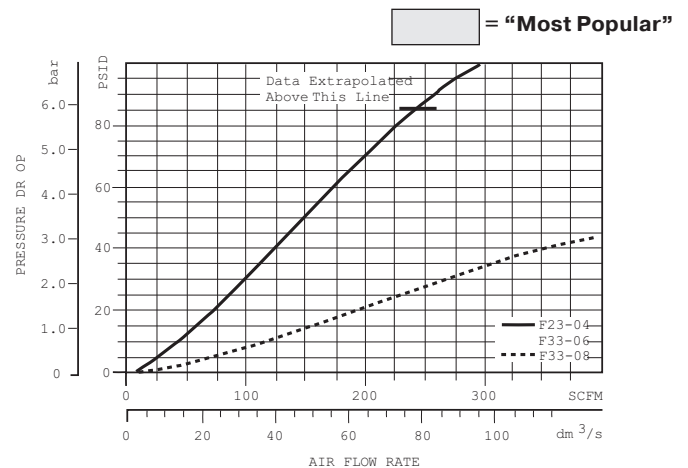
Accessories

Wall Mounting Bracket, U-Bolt Pipe Clamp GRP-95-734



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit F23-04-000		3.83 (97.5)	3.83 (97.5)	6.23 (158.2)	2.06 (52.3)	8.29 (210.6)	1.92 (48.8)



Specifications

Maximum Supply Pressure	150 PSIG (10.3 bar)
Operating Temperature	32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G 1/2
Standard Filtration	5 Micron
Weight	3.12 lb. (1.4 kg)

Materials of Construction

Baffle		Acetal
Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Element Retainer		Steel Stud
Filter Element		Sintered Polyethylene
Shield		Steel
Stem		Steel

Exhaust Muffler F33

Exhaust Muffler Units

Part of an OSHA requirement is to keep sustained noise levels within acceptable specifications: 90 decibels (dBA) or less. Wilkerson's mufflers and oil reclassifiers keep these objectionable exhaust noises (air motors, control valves, etc.) within the OSHA specifications.

These units have only one inlet port. The contaminants in the exhaust flow are mechanically separated and twice filtered to 5 micron levels. The clean, muffled exhaust flows out of the unit under the metal hood on top.



F33-06-000

Features:

- 5 Micron Rated Reusable Elements
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Low-Pressure Drop (Back Pressure)
- Removes Oily Aerosols from Exhaust Flows
- Transparent Bowls with Metal Bowl Guards Standard

Replacement Bowl Kits

Metal Bowl Guard, (for Plastic Bowl)..... GRP-95-808
 Metal Bowl, Brass Petcock..... FRP-95-593
 Metal Bowl / Sight Gauge, Brass Petcock GRP-95-676
 Plastic Bowl, Plastic Petcock Drain..... LRP-96-160
 Plastic Bowl / Bowl Guard, Plastic Petcock Drain..LRP-95-830

Replacement Element Kit

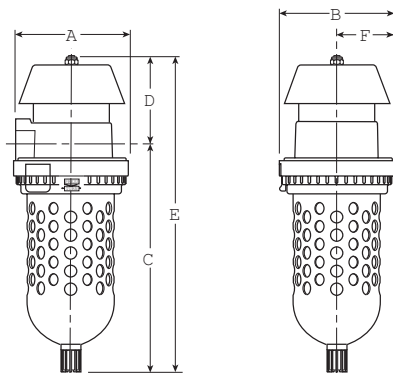
Type "A", 5 Micron..... FRP-95-170

Replacement Kits

Clamp Ring Assembly GRP-96-404
 Manual Drain, Brass Petcock GRP-95-182
 O-ring, Bowl, Fluorocarbon (10 per kit) GRP-95-942
 O-ring, Bowl, Nitrile (10 per kit)..... GRP-95-256

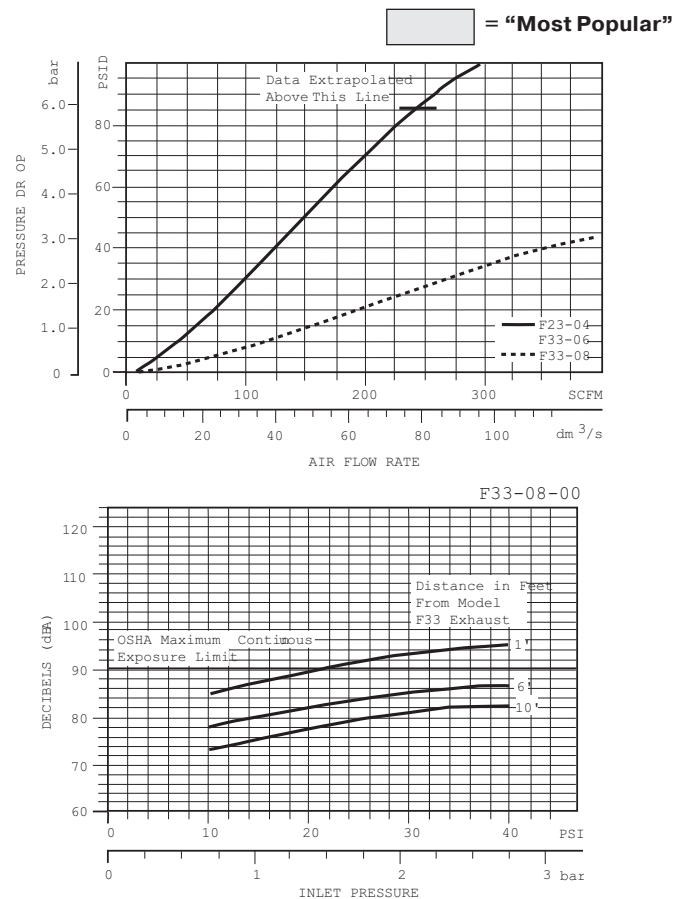
Accessories

Wall Mounting Bracket, U-Bolt Pipe Clamp..... GRP-95-734



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit F33-06-000 & F33-08-000		4.63 (117.6)	4.63 (117.6)	8.91 (226.3)	3.99 (98.6)	12.79 (324.9)	2.31 (58.7)



Specifications

Maximum Supply Pressure	150 PSIG (10.3 bar)
Operating Temperature	32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G 3/4, 1
Standard Filtration	5 Micron
Weight	6 lb. (2.7 kg)

Materials of Construction

Baffle		Acetal
Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Element Retainer		Steel Stud
Filter Element		Sintered Polyethylene
Shield		Steel
Stem		Steel

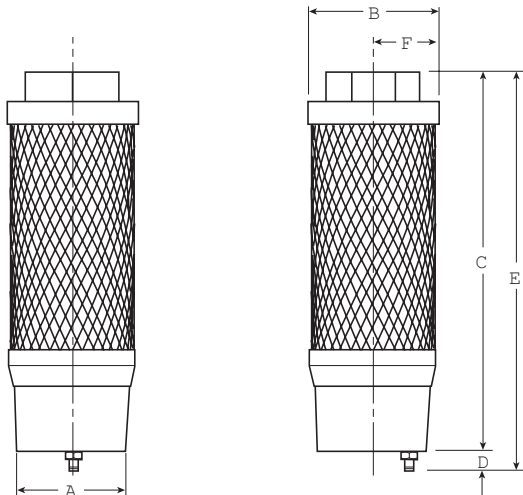
Exhaust Silencer Mist Eliminator XMC



XMC-08-000

Features

- Port Sizes 1/2", 1" and 1-1/2" NPT
- Liquid Sump with Manual Drain
- Corrosion Resistant Construction
- Compact and Easy to Install
- Low Cost
- Low Back Pressure
- High Density Durable Plastic End Caps



Dimensions

Models	Inches (mm)	Port Size	A	B	C	D	E	F
Standard Unit XMC-04-000		1/2	2.00 (51)	2.36 (60)	3.94 (100)	0.39 (10)	5.94 (150.9)	1.18 (30)
Standard Unit XMC-08-000		1	2.00 (51)	2.36 (60)	5.83 (148)	0.39 (10)	7.83 (198.9)	1.18 (30)
Standard Unit XMC-0B-000		1-1/2	3.00 (76)	3.42 (87)	8.19 (208)	0.42 (11)	11.19 (284)	— —

XMC-08-000 = "Most Popular"

Specifications

	XMC-04-000	XMC-08-000	XMC-0B-000
Air Flow @12 PSIG (0,8 bar)	65 SCFM (30.7 dm ³ /s)	110 SCFM (51.9 dm ³ /s)	200 SCFM (94.4 dm ³ /s)
Back Pressure			
Bowl Capacity	2.2 fl. oz.	5 fl. oz.	5 fl. oz.
Cv	5.5	9.3	16.9
Drain	Manual		
Oil Removal	99.9%		
Operating Temperature	36° to 122°F (2° to 50°C)		
Port Size*	1/2 NPT	1 NPT	1-1/2 NPT
Media		Air	
Noise Reduction	25 dBA		
Weight	0.4 (0,18)		

* Place "C" in position 4 to specify BSPP-G.

Materials of Construction

Corrosion Resistant Threaded End Cap	Nylon
Cover Cap	Plastic
Filter Elements –	
Primary	Borosilicate Cloth
Secondary	PVC Fiber
Oil Drain Cup	Plastic
Outer Support Sleeve	Plastic Mesh Screen

Exhaust Silencer / Mist Eliminator XMC

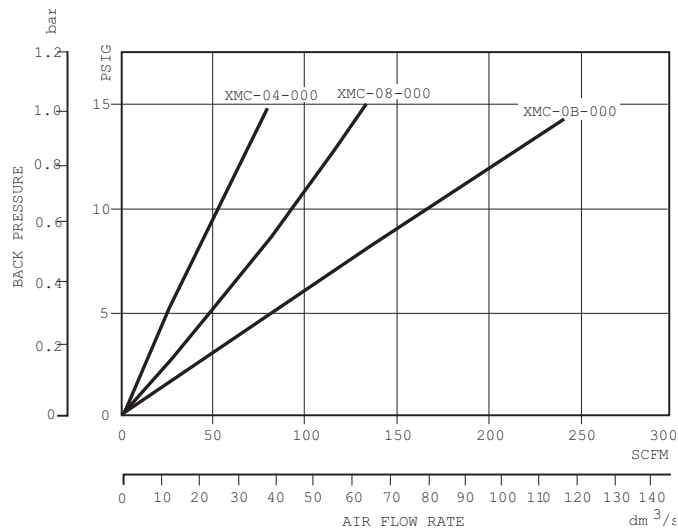
The XMC Series High Performance Exhaust Silencer / Mist Eliminator is an efficient solution to exhaust air oil mist contamination and excessive noise levels generated by exhaust air at levels generally above acceptable safety standards. The Wilkerson XMC Series Exhaust Silencer / Mist Eliminator solves the following two problems:

Oil and Mist Contamination

Exhaust air from various in-plant pneumatic components, such as valves and cylinders generally contain a significant amount of oil mists, as well as solid particles and other lubricant additives which will pollute the working environment, affect worker's health and the quality of the final product.

Operation

During unit operation, the XMC unit coalesces oil mists, which then collect into an integral drainage cup at the bottom of the element. Depending upon the volume of contamination exhausting into the unit, this may either be drained off periodically by removing the rubber drain plug cap and drain into a container, or continuously by connecting a suitable length of plastic tubing to the drain plug on the unit. The XMC is a disposable unit and should be changed when the back pressure becomes excessive for your particular installation.

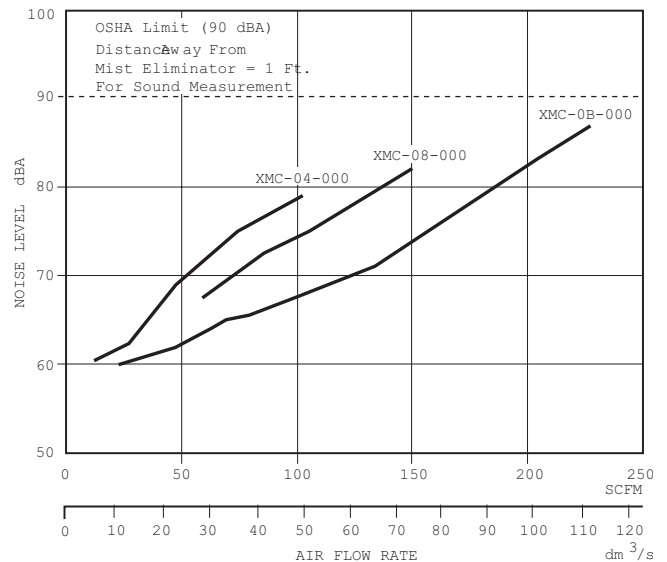


Back Pressure Chart

Unacceptable Noise Levels

The expanding exhaust air also produces both sudden and excessive noise, generally at levels well above the OSHA requirements of 90 decibels (dBA), which makes the working environment both unpleasant and potentially unsafe.

By using a Wilkerson XMC Series unit, oil mist and other contaminants inherent in lubricated air lines are removed thus preventing them from entering the atmosphere. At the same time, the noise level is reduced to meet and exceed the requirements of OSHA standards applicable to environmental conditions. The high performance XMC models remove up to 99.9% of the oil mist from the exhaust air, providing a clean, healthy work environment.



Noise Characteristics Chart

Installation

Wilkerson's XMC Exhaust Silencer / Mist Eliminators can be easily and quickly installed in the exhaust ports of pneumatic valves, air motors and other air operated devices to reduce work area noise and eliminate oil mist from exhaust air. Use of collective piping or manifold where multiple air devices are used makes for easy maintenance and control of oil mist collection and disposal. For manual draining, attach plastic tubing with an inside diameter of 0.25" (6.35 mm) and run tubing from the drain to the collecting container. When installed without plastic tubing, periodically remove rubber drain plug cap and manually drain unit into a proper disposable container.

Liquid Separators WSA / WS0

 = "Most Popular"


Specifications

Maximum Operating Pressure	(WSA)	200 PSIG (13.8 bar)
	(WS0)	232 PSIG (16.0 bar)
Operating Temperature	(WSA)	32° to 150°F (0° to 65.5°C)
	(WS0)	35° to 176°F (1.6° to 80°C)
Pressure Differential at Rated Flow		1.0 PSID (0.07 bar)

Materials of Construction

	WSA	WS0
Housing	Zinc	Aluminum
Seals	Nitrile	Fluorocarbon

Features

- High Flow Rates
- Less than 1 PSIG Differential Pressure
- Lightweight Cast Aluminum Housing with 1" to 3" NPT Connections (WS0)
- Cast Zinc Housings with 1/4" to 1" NPT Connections (WSA)
- External Surfaces Epoxy Painted for Maximum Corrosion Protection
- Standard Equipped with Quick Disconnect Bowls for Ease of Service (WSA)
- Three (3) Optional Automatic Drains Available

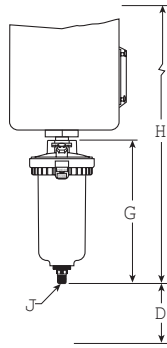
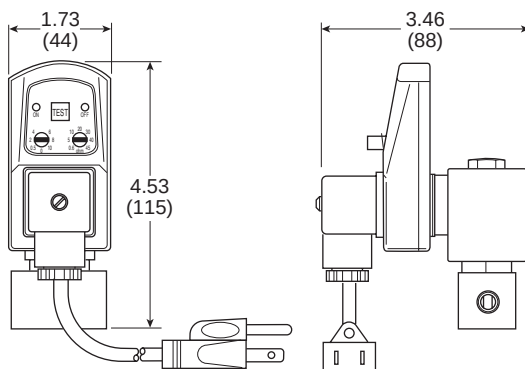
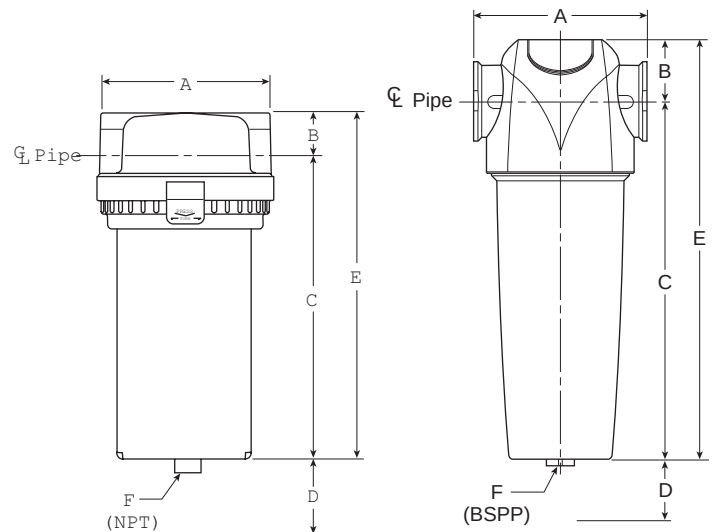
Liquid Separators

Our unique design combines the techniques of centrifugal action and other mechanical separation principles (Impingement, Separation, Laminar Flow and Stokes Law) to remove large quantities of liquid and solid contamination.

Typical applications include water separation downstream of aftercoolers, protection of refrigerant and heatless regenerative desiccant dryers, downstream of air receivers, and other liquid / gas separation duties where the volume of water and solids poses a real problem.

Model Number	In / Out NPT Pipe Conn.	Rated Flow (SCFM) @ 100 PSIG*	Approx. Weight lbs.	Recommended Automatic Drain
WSA-02-M00**	1/4"	25	2.2	Optional
WSA-02-FM0	1/4"	25	2.2	Internal
WSA-03-M00**	3/8"	50	2.6	Optional
WSA-03-FM0	3/8"	50	2.6	Internal
WSA-04-M00**	1/2"	50	2.6	Optional
WSA-04-FM0	1/2"	50	2.6	Internal
WSA-06-M00**	3/4"	100	6.0	Optional
WSA-06-FM0	3/4"	100	6.0	Internal
WSA-08-M00**	1"	120	6.0	Optional
WSA-08-FM0	1"	120	6.0	Internal
WS0-08-000B	1"	233	4.8	X02-04-FM0 WDV3-G
WS0-0B-000B	1-1/2"	742	11.2	X02-04-FM0 WDV3-G
WS0-0C-000B	2"	742	11.2	X02-04-FM0 WDV3-G
WS0-0E-000B	3"	1700	22.0	X02-04-FM0 WDV3-G

*1 PSID maximum differential. **Models have petcock.

**X02****D** = Bowl Removal Clearance Dimension**J** = External Drain Discharge Port (NPT)**Front View****Side View****WDV3-G****WSA****WS0**

NOTE: MAXIMUM separator efficiency of 98%+ is achieved in the range of 15 to 100% of rated flow in SCFM. At flow rates of <15% or >100%, separator efficiency is reduced considerably. Consult your Wilkerson distributor or contact Wilkerson for assistance in selecting the correct separator model for your application.

Model Number	A	B	C	D	E	NPT F	G	H	NPT J
WSA-02-M00*	3.00	.90	5.51	3.50	6.41	1/8	—	—	—
WSA-02-FM0	3.00	.90	5.51	3.50	6.41	1/8	—	—	—
WSA-03-M00*	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-03-FM0	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-04-M00*	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-04-FM0	3.35	.98	6.36	3.50	7.34	1/8	—	—	—
WSA-06-M00*	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WSA-06-FM0	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WSA-08-M00*	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WSA-08-FM0	4.62	1.00	9.00	3.50	10.00	1/8	—	—	—
WS0-08-000B	5.10	1.60	9.20	3.00	10.80	1/2	5.90	18.00	1/4
WDV3-G	—	—	—	—	—	—	1.62	13.72	—
WS0-0B-000B	6.70	2.00	15.00	4.00	17.00	1/2	5.90	18.00	1/4
WDV3-G	—	—	—	—	—	—	1.62	13.72	—
WS0-0C-000B	6.70	2.00	15.00	4.00	17.00	1/2	5.90	24.50	1/4
WDV3-G	—	—	—	—	—	—	1.62	20.22	—
WS0-0E-000B	8.10	2.40	17.50	4.72	19.90	1/2	5.90	28.90	1/4
WDV3-G	—	—	—	—	—	—	1.62	24.62	—

*Models have petcock.

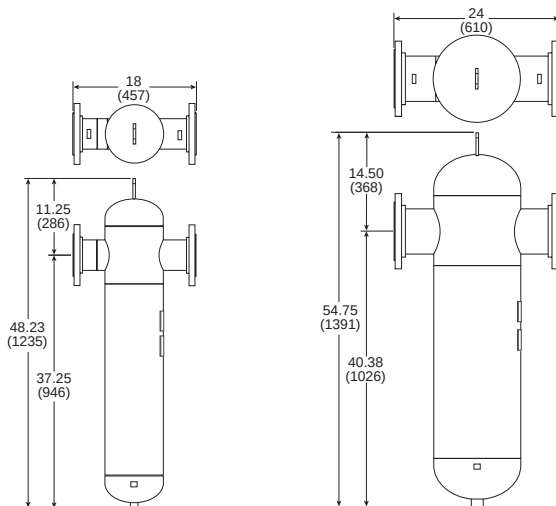
Bulk Liquid Separators WWSA



WWSA Series

Features

- Designed in Accordance with ASME and CRN
- Connection Sizes: 4 Inch & 6 Inch
- High Liquid Removal Efficiencies at All Flow Conditions
- Suitable for Variable Flow Compressors
- Works With All Types of Compressor and Compressor Condensate
- External Surface Epoxy Painted for Maximum Corrosion Resistance
- Auto float drain is standard, shipped loose



WWSA1000F

WWSA1800F

Specifications

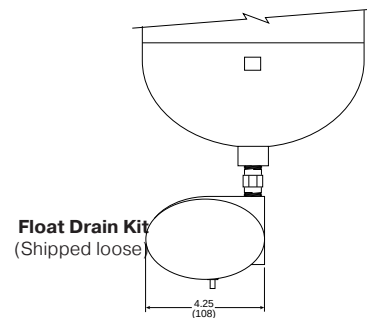
Operating Pressure	232 PSIG (16 bar)
Operating Temperature	35°F to 150°F (1.5°C to 66°C)

Materials of Construction

Baffle	Plated Steel
Body	Steel
Deflector	Plated Steel
Seals	Fluorocarbon
Stud	Plated Steel

Service Kits

Auto Float Drain Kit - 1/2" NPT	HDF-120-NPT-A
---------------------------------	---------------



Inlet Air Pressure Correction

PSI	15	29	44	58	73	87	100	116	131	145
bar	1	2	3	4	5	6	7	8	9	10
Factor	2.65	1.87	1.53	1.32	1.18	1.08	1.00	.94	0.88	0.84

For pressures above
232 PSIG (16 bar),
use manual drain.

PSI	160	174	189	203	218	232	247	261	275	290
bar	11	12	13	14	15	16	17	18	19	20
Factor	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

Ordering Information

Model Type	Port Size	Flow SCFM
WWSA1000F	4" Flange	2119
WWSA1800F	6" Flange	3814

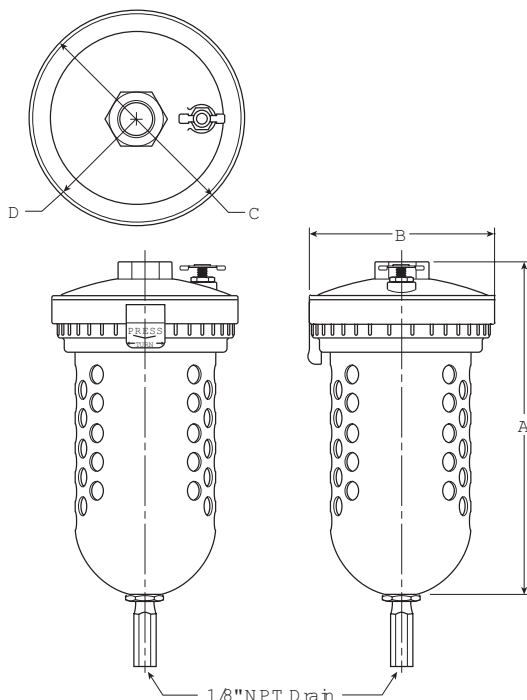
External Drain X01



X01-04-000

Features

- Fully Automatic Float Operated
- No Electrical Connections
- Easily Installed
- Internal Pilot Operated
- Quick-Disconnected Clamp Ring for Easy Bowl Removal when Servicing
- Transparent Bowl with Metal Bowl Guard Standard



Specifications

Drain Rate	150 GPH @ 100 PSIG (570 l/h @ 6.9 bar)	
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/2
Weight	4.6 lb. (2.1 kg)	

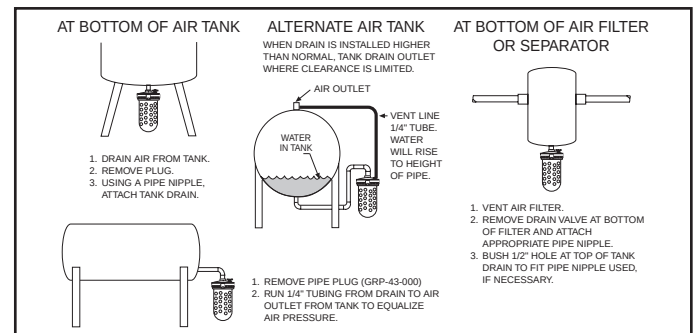
Materials of Construction

Body	Zinc
Float Assembly	Plastic with Stainless Steel Internals

Replacement Kits

Bowl Guard, Metal (for Plastic Bowl)	GRP-95-808
Clamp Ring Assembly	GRP-96-404
Plastic Bowl, Auto Drain and Bowl Guard Assembly	XRP-95-747
Metal Bowl and Auto Drain Assembly –	FRP-95-631
O-ring, Bowl –	
Fluorocarbon (10 per kit)	GRP-95-942
Bowl, Nitrile (10 per kit)	GRP-95-256

Typical Installations



External Drain

As liquid contaminants collect in the bowl, they raise a closed-cell molded float. When the liquid level reaches a given point, the float triggers a mechanism, which pilots line pressure against a large-area diaphragm, which snaps open the drain valve. The contaminants are discharged from the drain orifice at line pressure. As the liquid level falls, the pilot valve closes, line pressure against the diaphragm returns to atmosphere and the drain valve snaps closed.

Dimensions

Models	Inches (mm)	A	B	C	D
Standard Unit X01-04-000		9.66 (245)	4.76 (121)	4.76 (121)	2.36 (60)

External Drain
X02 / XB3

 = “Most Popular”

X02-04-000

XB3-04-M00

Features

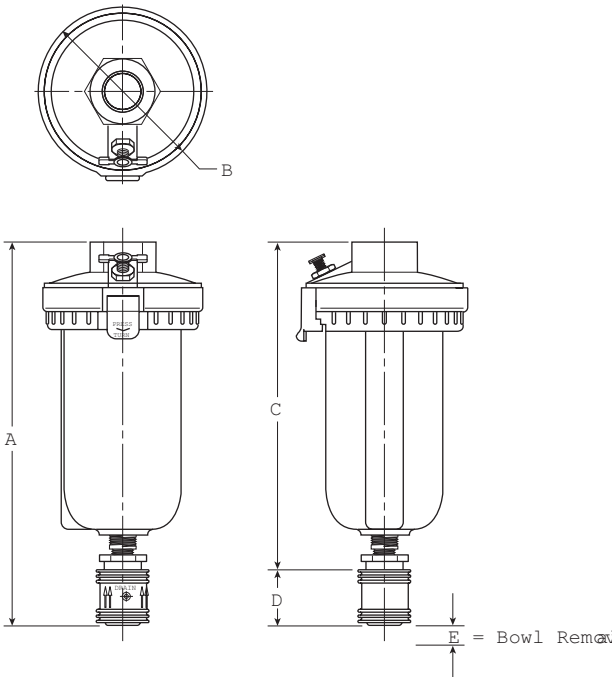
- Available in NPT and BSPP-G Ports
- The Manual Override Allows Drainage at Any Time Without Waiting
- Use of the Manual Override Does Not Interfere with the Normal Operation of the Drain
- To Assist in Compliance with EPA Regulations, a 1/8" Pipe Thread Allows the Liquid Discharge to be Piped Away. The X02 Has No Manual Override for the Automatic Drain.

Specifications

Drain Rate		80 GPH @ 100 PSIG (300 l/h @ 6.9 bar)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G 1/2	
Weight	XB3	1.42 lb. (0.6 kg)
	X02	1.26 lb. (0.6 kg)

Materials of Construction

Body	Zinc
Float Assembly	Plastic with Stainless Steel Internals
Manual Override	Brass



Dimensions

Models	Inches (mm)	A	B	C	D	E
Standard Unit XB3-04-000		7.00 (179)	3.06 (78)	6.00 (152)	1.00 (25)	1.66 (42)
Standard Unit X02-04-F00		5.87 (149)	3.06 (78)	— —	— —	2.88 (73)
Metal Bowl XB3-04-M00		7.50 (190.5)	3.06 (78)	6.50 (165)	1.00 (25)	1.66 (42)
Metal Bowl X02-04-FM0		5.87 (149)	3.06 (78)	— —	— —	2.88 (73)



External Drain

Wilkerson drains are designed to remove liquid oil and water contaminants from compressed air systems automatically.

Liquid contaminants collected in the bowl cause the float mechanism to rise. When the liquid reaches a specific level the float triggers a mechanism which pilots line pressure against a large-area piston. This action causes the drain orifice to open and evacuate the liquid and particulate contaminants. As the liquid level falls the pilot valve closes, line pressure against the piston returns to atmosphere and the drain valve snaps closed.

Wilkerson's XB3 model automatic drain includes the manual override. The manual override option allows for drainage at times when waiting for the system to drain automatically is not desirable.

Replacement Bowl Kits

- Bowl Guard, Metal (for Plastic Bowls) GRP-95-846
- Metal Bowl –
 - Automatic Float Drain GRP-96-007
 - Brass Petcock..... GRP-95-539
 - Sight Gauge, Brass PetcockLRP-95-673
- Plastic Bowl –
 - Flex Tip Drain FRP-95-017
 - Plastic Petcock Drain LRP-96-543
- Plastic Bowl, Metal Bowl Guard –
 - Automatic Float Drain GRP-95-845
 - Flex Tip DrainFRP-95-847

Accessories

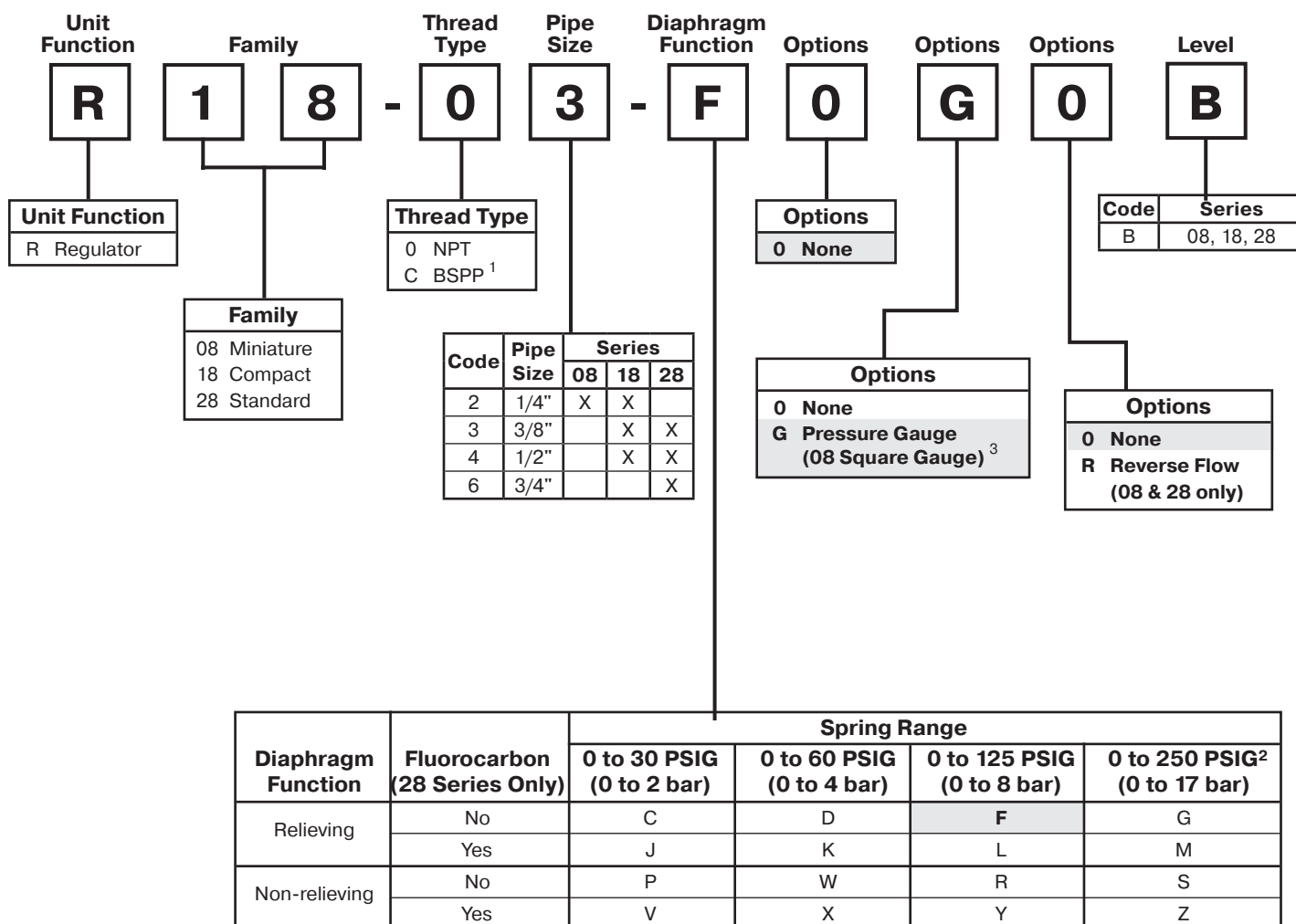
- Auto Float Drain –
 - FluorocarbonGRP-95-981
- Drain, Manual Override For Auto Float Drains –
 - with 1/8 NPT Port GRP-96-001
 - (Use with GRP-95-981 shown above. Order saperately)
- Manual Drain, Flex-TipFRP-95-610



Notes

Regulator Numbering System

 = "Most Popular"



¹ ISO, R228 (G Series).

² R08 series operating range 0 to 232 PSIG (1 to 16 bar).

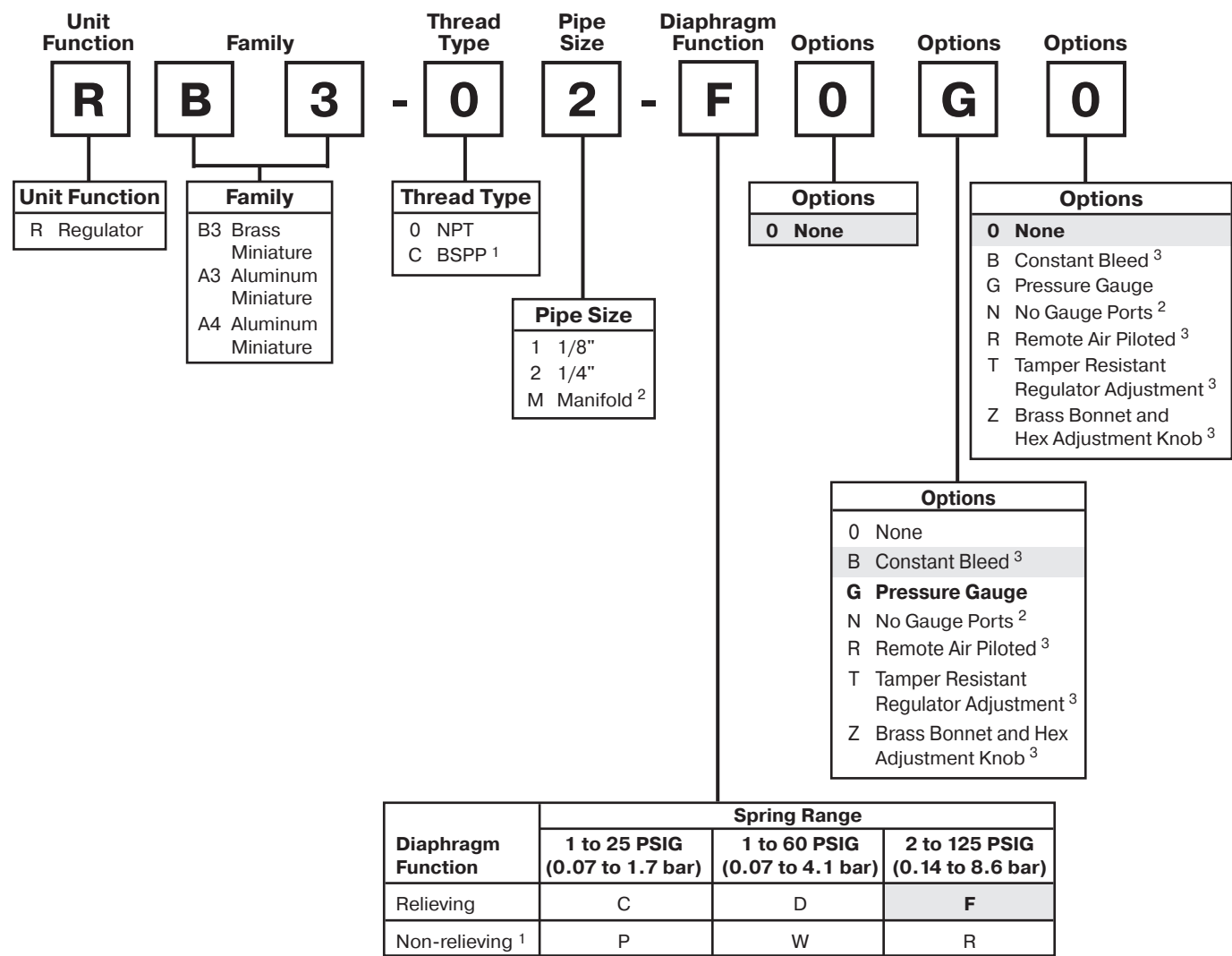
³ Square gauge is included with all R08

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

R 0 8 - 0 2 - F 0 G 0 B

RB3 / RA3 Series Regulator Numbering System

= “Most Popular”



¹ ISO, R228 (G Series)
² RA4 Only
³ Not available on RA4

NOTE:Standard pressure adjustment is plastic “snap lock” knob and plastic bonnet with plastic panel mount nut.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 8, and 9. For example:

RB3 - 0 2 - F 0 G T

Regulator Numbering System

= "Most Popular"

Unit Function

R

Unit Function

R Regulator

Family

16

Family

03 Miniature
16 Compact
26 Standard
30 Large
40 Extra Large

Thread Type

0

Thread Type

0 NPT
C BSPP

Pipe Size

3

Code	Pipe Size	Series				
		03	16	26	30	40
1	1/8"	X				
2	1/4"	X	X	X		
3	3/8"		X	X		
4	1/2"		X	X		
6	3/4"				X	
8	1"				X	
B	1-1/2"					X
C	2"					X

Options

0

Options

0 None
G Pressure Gauge
H High Pressure Spring
L Low Pressure Spring ¹
N Non-Relieving Diaphragm

Options (R03 Only)

Blank No Preset or
Limiter Option
XXX XXX PSIG
(Example:
065 = 65 PSIG)

Note: Pressure Range
10 to 90 PSIG in 5 PSIG
Increments Options

Options (R03 Only)

0 Standard, 2 to 125 PSI,
Relieving
G** Pressure Gauge
J*† Preset, Adjustable
K*† Preset, Non-Adj. / Epoxy
L 1 to 60 PSI, Relieving
M Panel Nut Included
N 2 to 125 PSI,
Non-Relieving
P 1 to 30 PSI, Relieving
Q 1 to 15 PSI, Relieving
R*† Pressure Limiter
S 1 to 60 PSI, Non-Relieving
T 1 to 30 PSI, Non-Relieving
U 1 to 15 PSI, Non-Relieving

Preset / Pressure Limited

- - -

Options (R03 Only)

Blank No Preset or
Limiter Option
XXX XXX PSIG
(Example:
065 = 65 PSIG)

Note: Pressure Range
10 to 90 PSIG in 5 PSIG
Increments Options

* Inlet pressure is 100 PSIG.
For other pressures, consult factory.

** Not available with BSPP thread type.

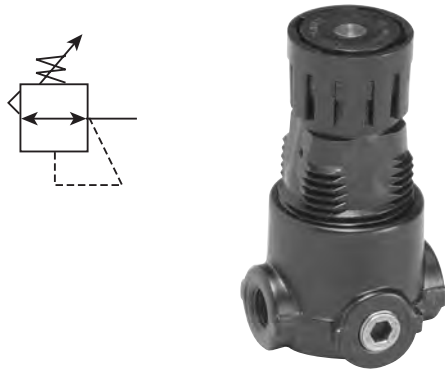
† Must specify preset or limited pressure.

Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

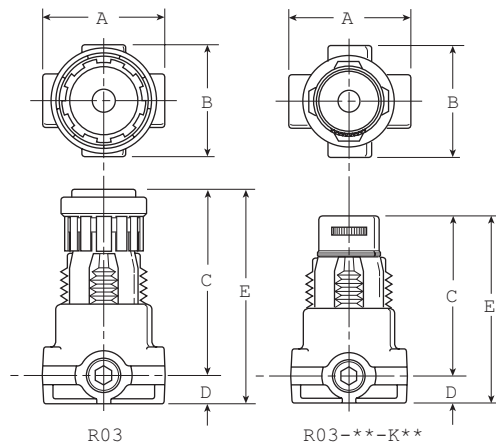
¹ Not available on R30.

Miniature Regulator R03

 = "Most Popular"
**R03-02-000**

Features

- Unbalanced Poppet Standard
- Solid Control Piston with Lip Seal for Extended Life
- Non-rising Adjusting Knob
- Compact, 3.08 inch (78mm) High by 1.65 inch (42mm) Wide
- Easily Serviced



Note: 1.218" dia. (.31) mm hole required for panel mounting.

Specifications

Flow Capacity*	1/8	13 SCFM (6.14 dm ³ /s)
	1/4	15 SCFM (7.08 dm ³ /s)
Gauge Ports (2)		1/8
Port Threads		1/8, 1/4 Inch
Supply Pressure		0 to 300 PSIG (0 to 20.7 bar)
Operating Temperature		32°F to 125°F (0°C to 52°C)
Secondary Pressure Ranges –		
Standard Pressure		2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure		1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure		1 to 30 PSIG (0 to 2.1 bar)
Low Pressure		1 to 15 PSIG (0 to 1.0 bar)

Weight .3 lb. (.14 kg)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar) and 10 PSIG pressure drop.

Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Seat, Piston & Valve Poppet	Plastic
Seals	Nitrile

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model	Inches (mm)	A	B	C	D	E
Standard Unit R03-XX-XXX		1.65 (42)	1.56 (39.6)	2.50 (63.5)	.38 (9.6)	2.88 (73)
Preset, Non-Adjustable Unit R03-XX-KXX		1.65 (42)	1.56 (39.6)	2.28 (57.9)	.38 (9.6)	2.66 (67.6)

= “Most Popular”

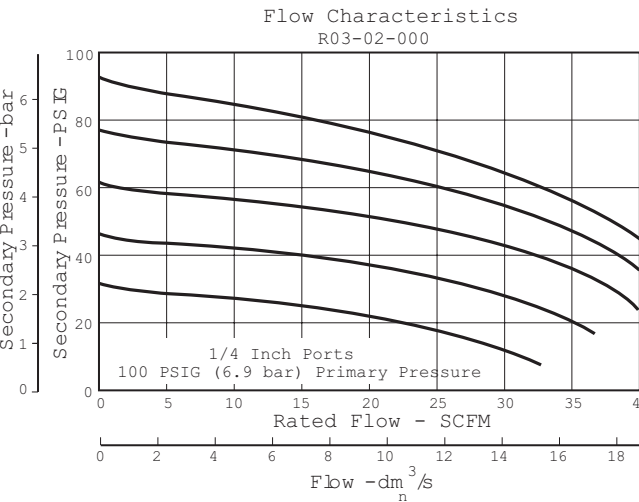
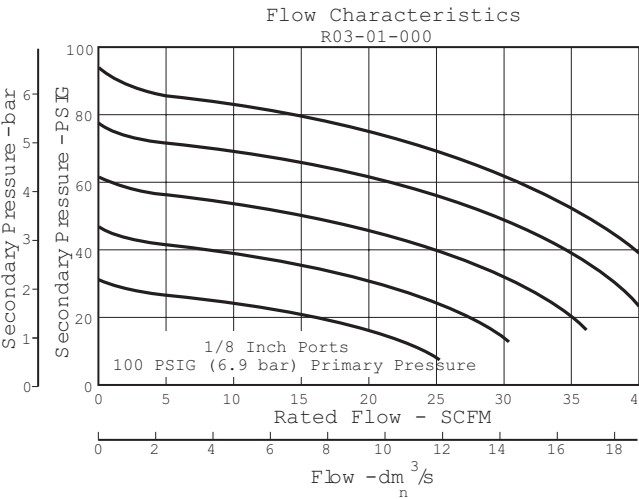
Replacement Kits

- Poppet / Piston Kits –
- Unbalanced, Non-RelievingPS428P
- Unbalanced, RelievingPS426P
- Springs –
- 1-30 PSIG Range.....P01175
- 1-60 PSIG Range.....P01174
- 2-125 PSIG RangeP01173
- 1-15 PSIG RangeP01176
- Tamperproof Metal Disc.....P01265

Accessories

- Gauge, Pressure –
- 30 PSIG, 1/8" NPT (0 to 2.1 bar)K4515N18030
- 60 PSIG, 1/8" NPT (0 to 4.1 bar)K4515N18060
- 160 PSIG, 1/8" NPT (0 to 11.0 bar).....K4515N18160
- Mounting Bracket Kit* (Includes Panel Mount Nut)PS417B
- Panel Mount Nuts* –
- PlasticP78652
- Metal.....P01531

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.



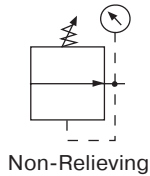
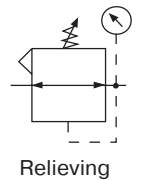
Ordering Information					
Model Type	Port Size	Without Gauge 2 to 125 PSIG (0.2 to 8.6 bar)	Without Gauge 1 to 60 PSIG (0.2 to 4.1 bar)	Without Gauge 1 to 30 PSIG (0.2 to 2.1 bar)	Without Gauge 1 to 15 PSIG (0.2 to 1.0 bar)
Relieving	1/8	R03-01-000	R03-01-L00	R03-01-P00	R03-01-Q00
	1/4	R03-02-000	R03-02-L00	R03-02-P00	R03-02-Q00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Miniature Regulator

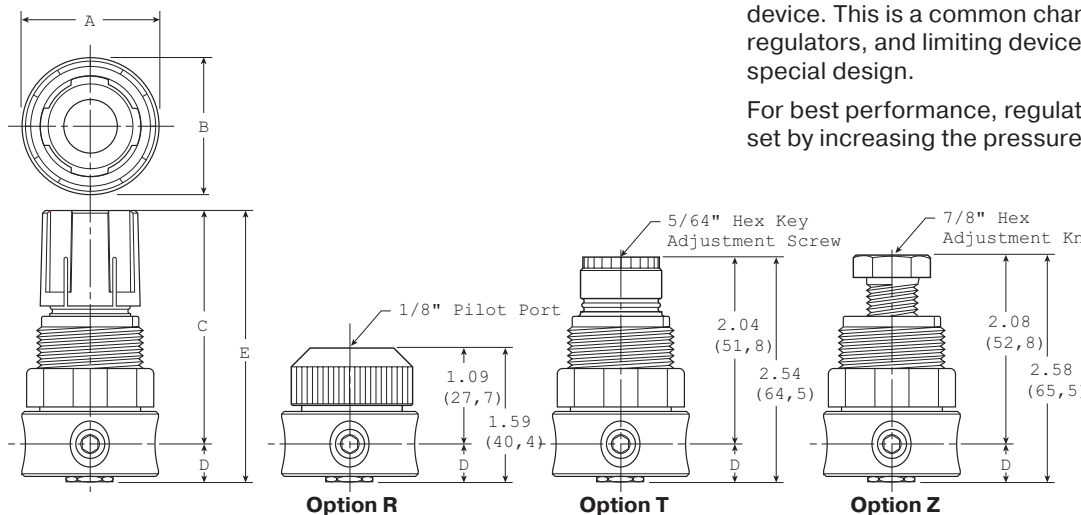
RB3 – Brass

RA3 – Aluminum

 = "Most Popular"

RB3-02-F000

Features

- Brass Body Construction Handles Water and Compressed Air Service
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Spring Loaded Diaphragm
- High Flow: 1/4" -14 SCFM
- Panel Mount Nut Standard
- Two 1/8" Gauge Ports



Dimensions

Model	Inches (mm)	A	B	C	D	E
Brass Regulator - Miniature RB3-XX-XXXX		1.56 (39.8)	1.56 (39.8)	2.56 (65)	.50 (12.7)	3.06 (77.7)
Aluminum Regulator - Miniature RA3-XX-XXXX		1.56 (39.8)	1.56 (39.8)	2.56 (65)	.50 (12.7)	3.06 (77.7)

Specifications

Flow Capacity*	1/4	14 SCFM (6.6 dm ³ /s)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		40° to 125°F (4.4° to 52°C)
Port Size	NPT / BSPP-G	1/8, 1/4
Weight	lb. (kg)	0.5 (0.23)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).
(flow at 25% pressure drop)

Materials of Construction

Body	RB3 RA3	Brass Aluminum
Bonnet		Acetal
Diaphragm & Seals		Nitrile
Valve Assembly & Bottom Plug		Brass

Note: Panel Nut included, but not shown on dimensional drawing.

Note: 1.19" dia. (30.2) mm hole required for panel mounting.

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

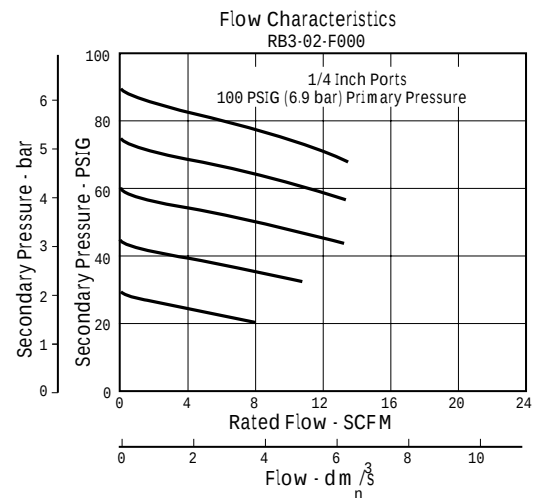
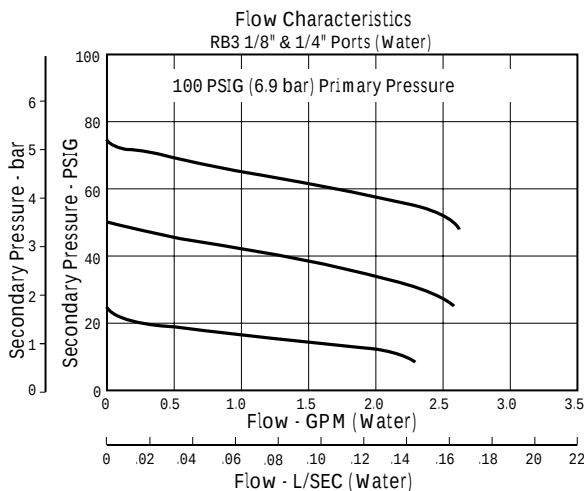
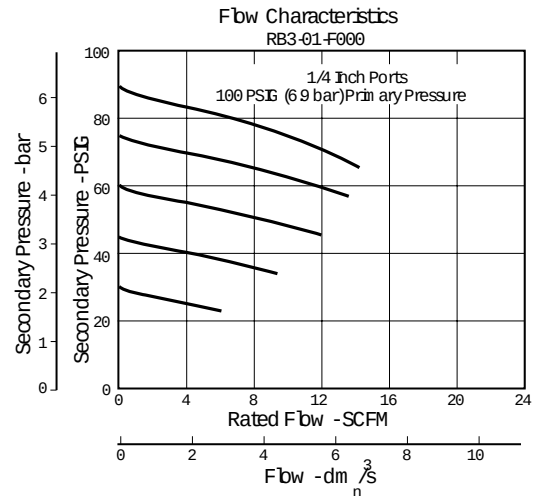
= "Most Popular"

Repair Kits

Bonnet, Knob, Adjusting Screw Kit RRP-96-821
 Bonnet, Tamper Resistant Adjustment Kit RRP-96-822
 Repair Kit –
 Relieving RRP-96-824
 Non-relieving RRP-96-825

Accessories

Gauge, Pressure –
 0-160 PSI (0-11,0 bar), 1-1/2" Dial Face,
 1/8" NPT, CBM K4515N18160
 0-60 PSI (0-4,1 bar), 1-1/2" Dial Face,
 1/8" NPT K4515N18060
 Panel Mount Nut –
 Aluminum RPA-96-733
 Plastic RPA-96-734
 Wall Mounting Bracket –
 L-Type GRP-95-147
 L-Type with Plastic Panel Mount Nut GRP-95-747

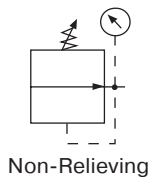
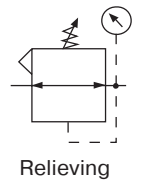


Ordering Information

Model Type	Port Size	Without Gauge 2 to 125 PSI (0.14 to 8.6 bar)	Without Gauge 1 to 60 PSI (0.07 to 4.1 bar)	Without Gauge 1-25 PSI (0.07 to 1.7 bar)
Relieving	1/8"	RB3-01-F000	RB3-01-D000	RB3-01-C000
	1/4"	RB3-02-F000	RB3-02-D000	RB3-02-C000
Non-relieving	1/8"	RB3-01-R000	RB3-01-W000	RB3-01-P000
	1/4"	RB3-02-R000	RB3-02-W000	RB3-02-P000
Relieving	1/8"	RA3-01-F000	RA3-01-D000	RA3-01-C000
	1/4"	RA3-02-F000	RA3-02-D000	RA3-02-C000
Non-relieving	1/8"	RA3-01-R000	RA3-01-W000	RA3-01-P000
	1/4"	RA3-02-R000	RA3-02-W000	RA3-02-P000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Miniature Regulator RA4

 = "Most Popular"


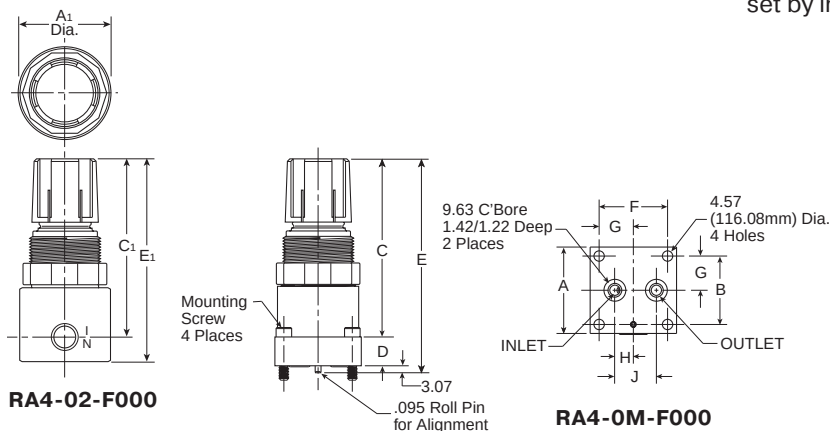
RA4-02-F000 RA4-0M-F000

Features

- Diaphragm Operated for Fast Operation.
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity.
- Balanced Valve Design for Precise Regulation.
- Available in 2 or 4[†] Port Design.
- Available With a Manifold Mount to Minimize Plumbing.
- Suitable for Low Temperature Applications.
- Non-Rising Adjusting Knob.
- 1/8" - 17 SCFM*
- 1/4" - 19 SCFM*

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

[†] Not Available with Manifold Mount.



Dimensions

Models	Inches (mm)	A	A1	B	B1	C	C1	D	E	E1	F	G	H	J
Brass Regulator - Miniature RA4-XX-XXXX		1.5 (38.1)	1.56 (39.7)	1.188 (30.18)	1.56 (39.7)	2.75 (69.92)	2.7 (68.7)	.5 (12.7)	3.25 (82.62)	3.25 (82.62)	1.188 (30.18)	.6 (15.09)	.32 (8.26)	.73 (18.42)

Specifications

Operating Temperature	-40° F to 150° F (-40° C to 65.5° C)
Supply Pressure	300 PSIG Maximum (20.4 bar)
Port Threads	1/8, 1/4 Inch
Gauge Ports	(2) Std 1/8 Inch (No Gauge Port Version Available)
Weight	.25 lbs. (0.11 kg)

Materials of Construction

Body	Aluminum
Bonnet	Acetal
Diaphragm & Seals	Nitrile
Valve Assembly	Brass
Springs	Steel
Panel Nut	Acetal

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

 = "Most Popular"

Replacement Kits

Diaphragm Assembly -

Non-relievingGRP-96-726
 Relieving.....GRP-96-725

Spring, Regulating -

0 to 30 PSIG (0 to 2.1 bar) GRP-95-111
 0 to 60 PSIG (0 to 4.1 bar) GRP-96-718
 0 to 125 PSIG (0 to 8.6 bar) GRP-96-717
 Valve AssemblyRRP-96-727
 Valve Spring.....RRP-96-728

Accessories

Adjusting Knob.....RRP-16-005-000

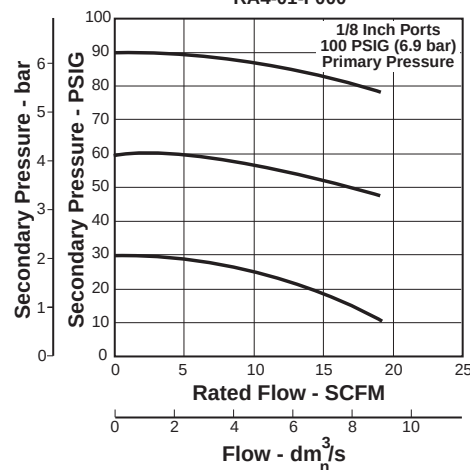
Panel Mount Nut -

Aluminum RPA-96-733
 Plastic RPA-96-734

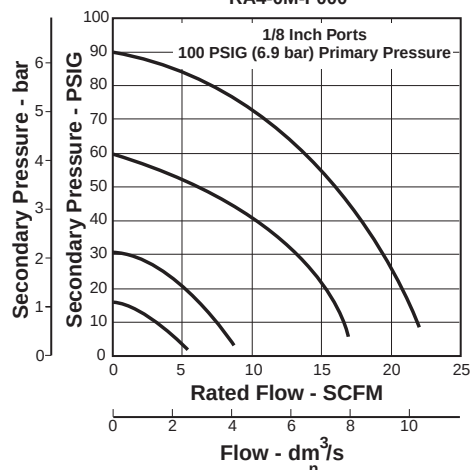
Gauges

0 to 60 PSIG (0 to 4.1 bar), 1-1/2" Dial Face,
 1/8 NPT, CBM K4515N18060
 0 to 160 PSIG (0 to 11.0 bar), 1-1/2" Dial Face,
 1/8 NPT, CBMK4515N18160
 Tamper Resistant Kit RPA-96-735

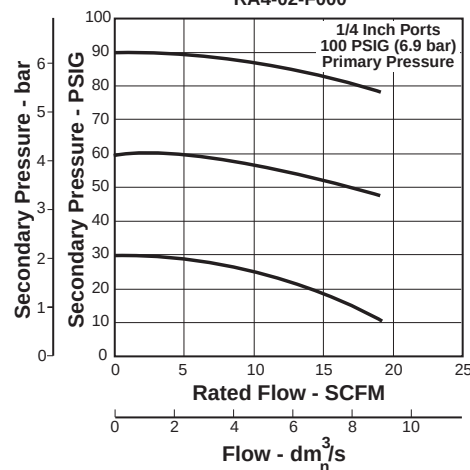
Flow Characteristics
RA4-01-F000



Flow Characteristics
RA4-0M-F000



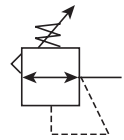
Flow Characteristics
RA4-02-F000



Ordering Information

Model Type	Port Size	Without Gauge 0 to 30 PSIG (0.0 to 2.1 bar)	Without Gauge 0 to 60 PSIG (0.0 to 4.1 bar)	Without Gauge 0 to 125 PSIG (0.0 to 8.6 bar)	With Gauge 0 to 30 PSIG (0.0 to 2.1 bar)	With Gauge 0 to 60 PSIG (0.0 to 4.1 bar)	With Gauge 0 to 125 PSIG (0.0 to 8.6 bar)
Relieving	1/8"	RA4-01-C000	RA4-01-D000	RA4-01-F000	RA4-01-C0G0	RA4-01-D0G0	RA4-01-F0G0
	1/4"	RA4-02-C000	RA4-02-D000	RA4-02-F000	RA4-02-C0G0	RA4-02-D0G0	RA4-02-F0G0
	Manifold Mount	RA4-0M-C000	RA4-0M-D000	RA4-0M-F000			
Non-relieving	1/8"	RA4-01-P000	RA4-01-W000	RA4-01-R000	RA4-01-P0G0	RA4-01-W0G0	RA4-01-R0G0
	1/4"	RA4-02-P000	RA4-02-W000	RA4-02-R000	RA4-02-P0G0	RA4-02-W0G0	RA4-02-R0G0
	Manifold Mount	RA4-0M-P000	RA4-0M-W000	RA4-0M-R000			

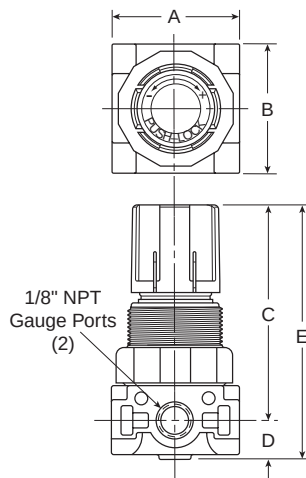
Miniature Regulator R24, R25

 = "Most Popular"


R25-02C

Features

- Lightweight Plastic Body
- Constructed with a Combination of N.S.F. and F.D.A. Approved Materials
- Unbalanced Poppet Standard
- Non-rising, Push-to-lock Adjusting Knob
- Compact, 3.10 inch (79mm) high by 1.60 inch (41mm) wide
- Lightweight
- Diaphragm Operated



Dimensions

Model	Inches (mm)	A	B	C	D	E
Regulator - Miniature, Air Service R25-XXX		1.60 (41)	1.60 (41)	2.61 (66)	0.49 (13)	3.10 (79)
Regulator - Miniature, Water Service R24-XXX		1.60 (41)	1.60 (41)	2.61 (66)	0.49 (13)	3.10 (79)

Specifications

Maximum Supply Pressure	150 PSIG (10 bar)	
Operating Temperature	40° to 125°F (4.4° to 52°C)	
Gauge Ports (2)	(Can be used for full flow)	1/8 Inch
Port Size	NPT	1/8, 1/4
Weight	lb. (kg)	0.25 (0.11)

Materials of Construction

Adjusting Screw	Steel
Body	Acetal
Bonnet and Seat	Acetal
Diaphragm (R25)	Buna N
Diaphragm (R24)	EPDM
Seals (R25)	Buna N
Seals (R24)	EPDM
Springs	Stainless Steel
Valve Poppet (R25)	Buna N
Valve Poppet (R24)	EPDM

Note: 1.25" dia. (31.8) mm hole required for panel mounting.



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

 = "Most Popular"

Kits and Accessories

Panel Mount Nut –

PlasticR05X51-P

AluminumR05X51-A

Mounting Bracket and NutSA161X57

Service Kits –

Relieving (Buna) RKR25Y

Non-Relieving (Buna) RKR25KY

Relieving (EPDM)RKR24Y

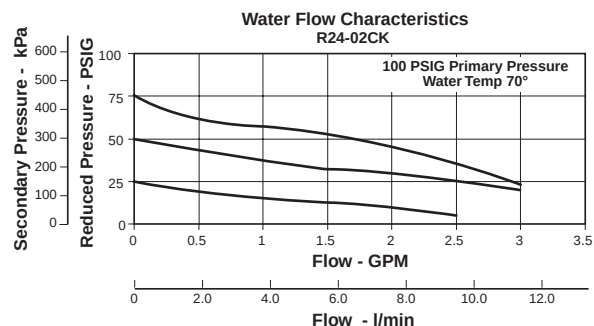
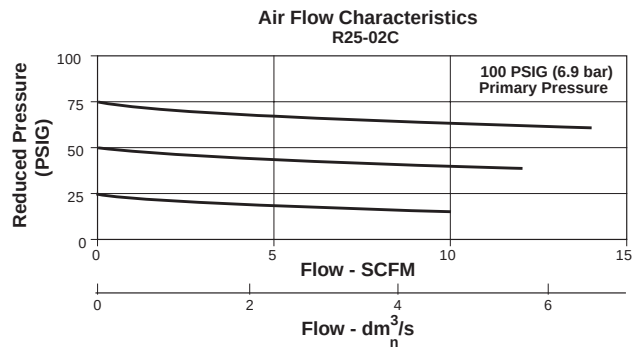
Non-Relieving (EPDM) RKR24KY

Springs –

0-25 psig Spring..... SPR-375-1

0-60 psig Spring SPR-376

0-125 psig Spring..... SPR-377



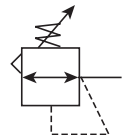
Ordering Information

Model Type	Port Size	Without Gauge 0 to 125 PSI (0 to 8.6 bar)
Air Service Relieving	1/8"	R25-01C
	1/4"	R25-02C
Water Service Non-relieving	1/8"	R24-01CK
	1/4"	R24-02CK

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Miniature Regulator

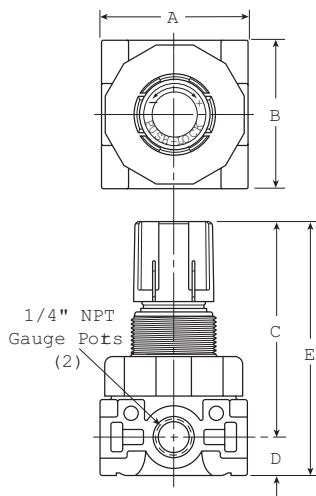
R45, R46

 = "Most Popular"


R45-03C

Features

- Lightweight Plastic Body
- Constructed with a Combination of N.S.F. and F.D.A. Approved Materials
- Unbalanced Poppet Standard
- Non-rising, Push-to-lock Adjusting Knob
- Compact, 3.43 inch (87mm) high by 2.06 inch (52.3mm) wide
- Lightweight
- Diaphragm Operated



Dimensions

Model	Inches (mm)	A	B	C	D	E
Regulator - Miniature, Air Service R45-XXX		2.06 (52)	2.06 (52)	2.90 (74)	0.53 (143)	3.43 (87)
Regulator - Miniature, Water Service R46-XXX		2.06 (52)	2.06 (52)	2.90 (74)	0.53 (143)	3.43 (87)

Specifications

Maximum Supply Pressure	150 PSIG (10 bar)	
Operating Temperature	40° to 125°F (4.4° to 52°C)	
Gauge Ports (2)	(Can be used for full flow)	1/4 Inch
Port Size	NPT	1/4, 3/8
Weight	lb. (kg)	0.38 (0.17)

Materials of Construction

Adjusting Screw	Steel
Body	Acetal
Bonnet and Seat	Acetal
Diaphragm (R45)	Buna N
Diaphragm (R46)	EPDM
Seals (R45)	Buna N
Seals (R46)	EPDM
Springs	Stainless Steel
Valve Poppet (R45)	Buna N
Valve Poppet (R46)	EPDM

Note: 1.25" dia. (31.8) mm hole required for panel mounting.

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

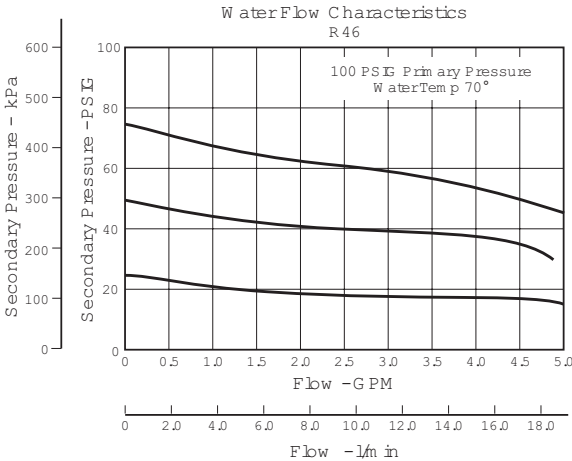
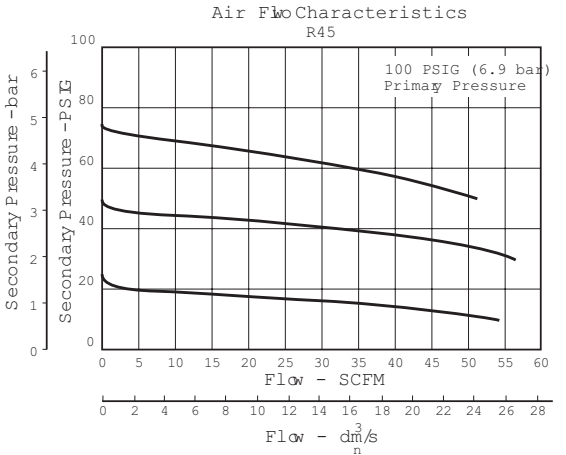
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

Kits and Accessories

- Panel Mount Nut –
PlasticR05X51-P
AluminumR05X51-A
- Mounting Bracket and NutSA161X57
- Service Kits –
Relieving (Buna) RKR45Y
Non-Relieving (Buna) RKR45KY
- Springs –
0-25 psig Spring.....SPR-46
0-60 psig SpringSPR-47
0-125 psig Spring.....SPR-48

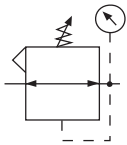


Ordering Information

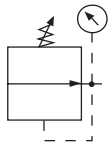
Model Type	Port Size	Without Gauge 0 to 125 PSI (0 to 8.6 bar)
Air Service Relieving	1/4"	R45-02C
	3/8"	R45-03C
Water Service Non-relieving	1/4"	R46-02CK
	3/8"	R46-03CK

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R08



Relieving

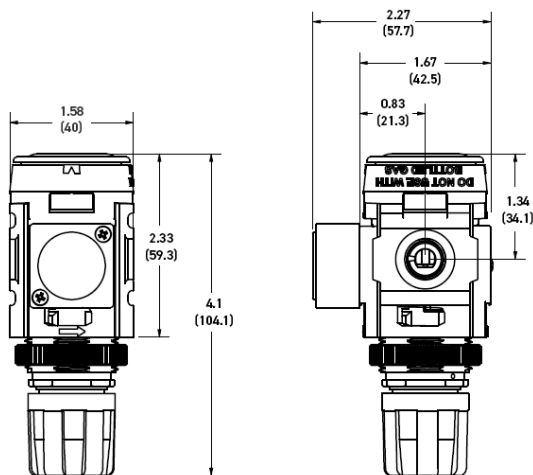


Non-Relieving



Features

- Balanced Valve Design
- Unique Flush-mounted Pressure Gauge
- Light Weight
- Modern Modular Design and Appearance



Inches (mm)

NOTE: 1.20 in. (30mm) hole required for panel nut mounting.

Specifications

Flow Capacity*	1/4	73 SCFM (34 dm ³ /s, ANR)
Adjusting Range Pressure	0 to 30 PSIG (0 to 2 bar) 0 to 60 PSIG (0 to 4 bar) 0 to 125 PSIG (0 to 8 bar) 0 to 232 PSIG (0 to 16 bar)	
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature†	-4° to 150°F (-20° to 65.5°C)	
Port Size	NPT / BSPP-G	1/4
Weight	0.37 lb. (0.17 kg)	

* Inlet pressure 145 psig (10 bar). Secondary pressure 100 psig (6.9 bar) and 14.5 psig (1 bar) pressure drop.

† Units with square gauges: 5°F to 150°F (-15°C to 65.5°C)

Gauge supplied with every part. Gauge can be installed on the front or back of the regulator. If no gauge is installed, both seal screws must be installed.

Materials of Construction

Adjustment Knob	Acetal
Body	Aluminum
Bottom Cap	Glass-filled Nylon
Bonnet	Glass-filled Nylon
Diaphragm Assembly	Stainless Steel / Nitrile
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Acetal / Nitrile



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Replacement Kits

Adjusting Knob GRP-96-792

Accessories

Panel Mount Nut –
Aluminum RPA-96-773
Plastic RPA-96-734

Pressure Gauge– (*see note below)

Square flush mount gauge

0-4 bar GRP-96-791-04B

0-11 bar GRP-96-791-11B

0-20 bar GRP-96-791-20B

0-60 PSIG GRP-96-791-060

0-160 PSIG..... GRP-96-791-160

0-290 PSIG GRP-96-791-290

*For R08/R09 Regulators with date code after November 2023 (4423 Date Code), please use these part numbers when ordering a replacement gauge.

Square flush mount gauge

0-4 barK4511SCR04B

0-11 barK4511SCR11B

0-60 PSIG K4511SCR060

0-160 PSIG..... K4511SCR160

Square with adapter kit

0-4 barP6G-PR10040

0-11 barP6G-PR10110

0-60 PSIGP6G-PR90060

0-160 PSIG.....P6G-PR90160

50mm (2") round 1/4" center back mount

0-30 PSIG / 0-2 bar..... K4520N14030

0-60 PSIG / 0-4 bar..... K4520N14060

0-160 PSIG / 0-11 bar..... K4520N14160

0-300 PSIG / 0-20 bar..... K4520N14300

1-3/4" Digital Round 1/4" NPT

0 to 160 PSIG K4517N14160D

Tamperproof Lock and Cover Kit
(lock not included)..... RPA-96-736B

Wall Mounting Bracket –

C-Type.....GPA-97-010

L-Type..... GPA-96-739

T-Type GPA-96-737

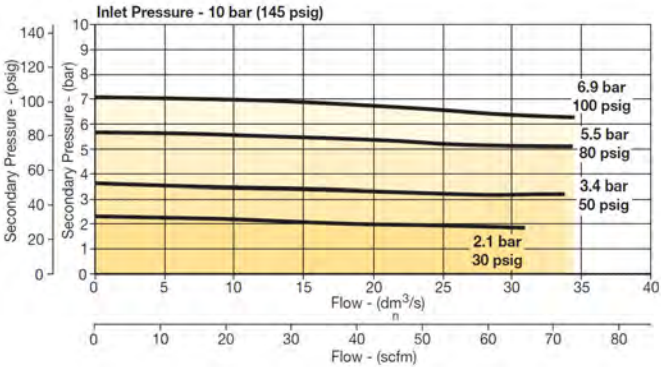
Ordering Information

Model Type	Port Size	With Gauge 0 to 125 PSIG (0 to 8.6 bar)	With Gauge 0 to 30 PSIG (0 to 2.1 bar)	With Gauge 0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/4	R08-02-F0G0B	R08-02-C0G0B	R08-02-D0G0B

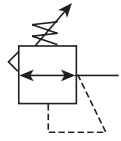
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

 = “Most Popular”

R08 1/4" Regulator



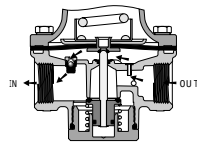
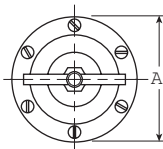
Regulator R120



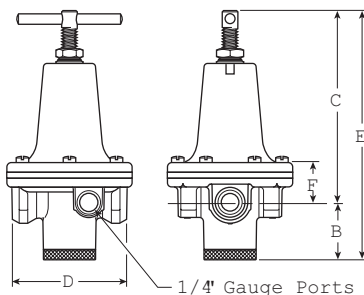
R120-02-000

Features

- High flow performance featuring rugged design for the most demanding applications
- Ideal for those installations calling for constant pressure with wide variation in flow
- Diaphragm operated design with balanced poppet design for quick and accurate regulation
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Heavy duty tee handle adjustment
- Reverse flow version available



Reverse Flow Option



Specifications

Flow Capacity [§]	1/4	100 SCFM (47.2 dm ³ /s)
	3/8	110 SCFM (51.9 dm ³ /s)
	1/2	150 SCFM (70.8 dm ³ /s)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Reduced Pressure Range	2 to 125 PSIG (0.15 to 8.5 bar)	
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	40° to 125°F (4.4° to 52°C)	
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight		
R120-02, R120-03	1.8 lb. (0.82 kg) / Unit	
	26 lb. (11.79) / 12-Unit Master Pack	
R120-04	3.2 lb. (1.45 kg) / Unit	
	27 lb. (12.25) / 8-Unit Master Pack	

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting, and 20 PSIG pressure drop.

Materials of Construction

Adjustment Screw, Spring	Steel
Body, spring Cage	Zinc
Bottom Plug	Brass
Innervolve	Brass
Seals	Buna N



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

Model	Inches (mm)	A	B	C	D	E	F
Standard Unit, 1/4 & 3/8 Port R120-XX-000		3.00 (76)	1.38 (35)	4.60 (117)	2.74 (70.5)	5.98 (152)	0.96 (24)
Standard Unit, 1/2 Port R120-X4-000		3.56 (90)	1.56 (40)	5.20 (132)	3.25 (83)	6.76 (172)	1.27 (32)

R120 Kits and Accessories

Gauges –

2" Dial Size, 1/4" Back Connection
0 to 60 PSIG (0 to 400 kPa) K4520N14060

2" Dial Size, 1/4" Back Connection
0 to 160 PSIG (0 to 1100 kPa) K4520N14160

2" Dial Size, 1/4" Back Connection
0 to 300 PSIG (0 to 2068 kPa) K4520N14300

Mounting Bracket Kit –

1/4", 3/8" WSA15Y57

1/2" W18A57

Panel Mount Conversion Kit –

1/4", 3/8" W4202

1/2" W4204

Repair Kits –

Non-Relieving Diaphragm,
Valve Assembly (1/4", 3/8"; All PSIG) WRK118Y

Relieving Diaphragm,
Valve Assembly (1/4", 3/8"; All PSIG) WRK119Y

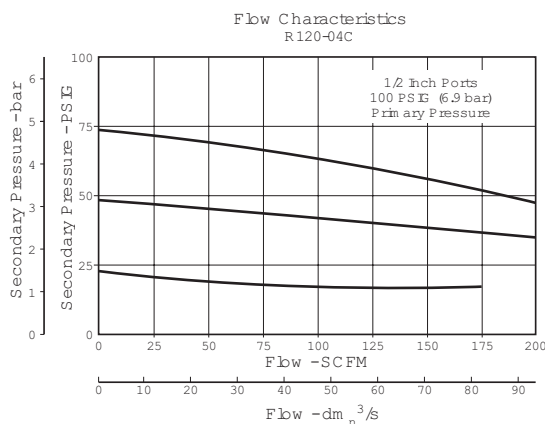
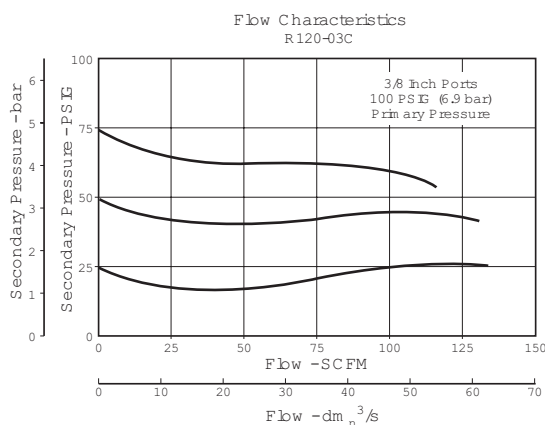
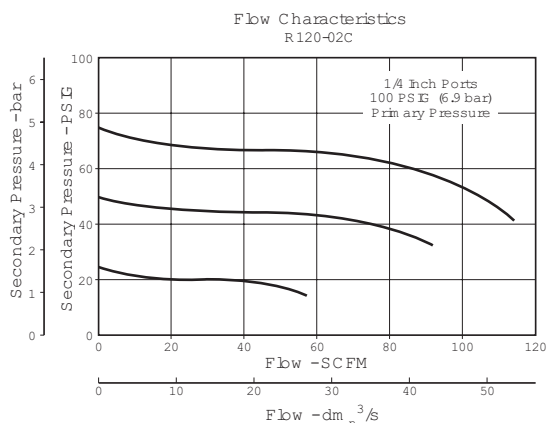
Non-Relieving Diaphragm,
Valve Assembly (1/2"; 25, 60, 125 PSIG) WRK118A

Non-Relieving Diaphragm,
Valve Assembly (1/2"; 250 PSIG) WRK118A250

Relieving Diaphragm,
Valve Assembly (1/2"; 25, 60, 125 PSIG) WRK119A

Relieving Diaphragm,
Valve Assembly (1/2"; 250 PSIG) WRK119A250

For Fluorocarbon Repair Kits, add X64 to Kit Number suffix.



Ordering Information

R120 - 0		2 - 0		0		0	
Series		Thread type		Port size		Options †	
Regular	R120	NPT	0	2	1/4	G	Pressure Gauge
		BSPP	C	3	3/8	H	High Pressure Spring (250 PSI)
				4	1/2	L	Low Pressure Spring (60 PSI)
						N*	Non-Relieving
						V	All Fluorocarbon
						X	Reverse Flow

Standard pressure spring is 0 to 125 PSIG

* **Note:** Non-relieving option not available with 250 PSI spring

† For additional options, add to end of model number.

Must be in alphabetical order and up to a total of 5 options.

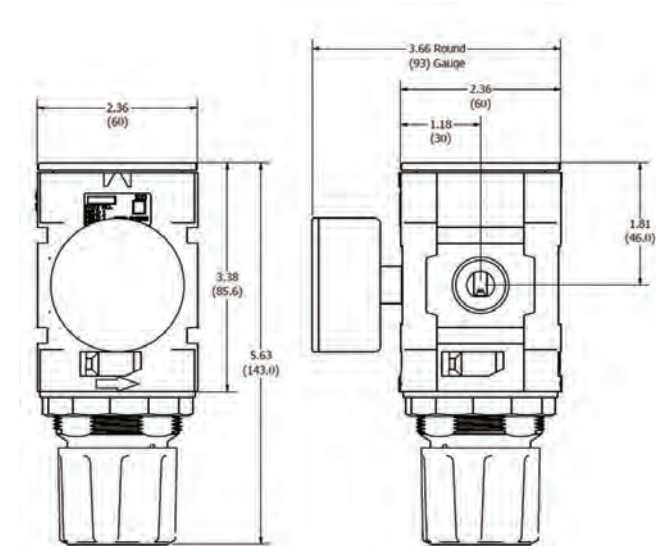
Regulator

R18



Features

- Balanced Valve Design
- Spring-loaded Diaphragm
- 4 Adjusting Pressure Ranges Available
- 1/2" NPT / BSPP-G Over-port
- 2 Gauge Ports
- Regulator will Reverse-flow as Standard



Inches (mm)

NOTE: 1.90 in. (48mm) hole required for panel nut mounting.

Specifications

Flow Capacity*	1/4	179 SCFM (84 dm ³ /s, ANR)
	3/8, 1/2	201 SCFM (94 dm ³ /s, ANR)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2 bar)
		0 to 60 PSIG (0 to 4 bar)
		0 to 125 PSIG (0 to 8 bar)
		0 to 250 PSIG (0 to 17 bar)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight		1.24 lb (0.56 kg)

* Inlet pressure 145 psig (10 bar). Secondary pressure 80 psig (5.5 bar).

Materials of Construction

Adjustment Knob		Acetal
Body		Aluminum
Body Cap		ABS
Bonnet		33% glass-filled nylon
Diaphragm Assembly		Nitrile / Stainless Steel
Valve Assembly		Acetal / Nitrile
Panel Nut		Acetal
Seals		Nitrile
Springs	Main Regulating Valve	Steel
		Stainless Steel

 **WARNING**

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= "Most Popular"

Replacement Kits

Adjusting Knob	RRP-96-655
Spring, Regulating –	
0 to 30 PSIG (0 to 2.1 bar)	RRP-96-659B
0 to 60 PSIG (0 to 4.1 bar)	RRP-96-660B
0 to 125 PSIG (0 to 8.6 bar)	RRP-96-661B
0 to 250 PSIG (0 to 17.2 bar)	RRP-96-662B

Accessories

Panel Mount Nut –	
Aluminum	RRP-96-673
Plastic	RRP-96-675B

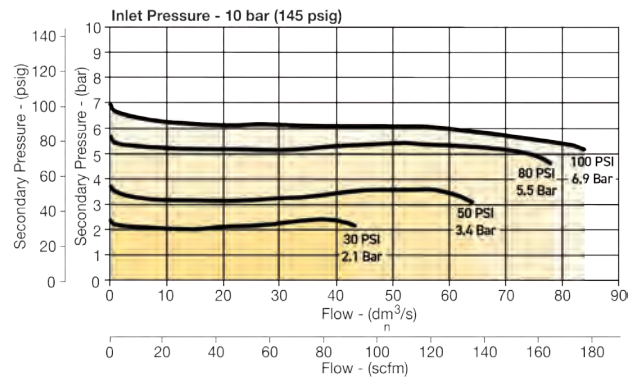
Gauge, Pressure –	
Square with adapter kit	
0-4 bar	P6G-PR10040
0-11 bar	P6G-PR10110
0-60 PSIG	P6G-PR90060
0-160 PSIG	P6G-PR90160
50mm (2") round 1/4" center back mount	
0-30 PSIG / 0-2 bar	K4520N14030
0-60 PSIG / 0-4 bar	K4520N14060
0-160 PSIG / 0-11 bar	K4520N14160
0-300 PSIG / 0-20 bar	K4520N14300
1-3/4" Digital Round 1/4" NPT	
0 to 160 PSIG	K4517N14160D

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

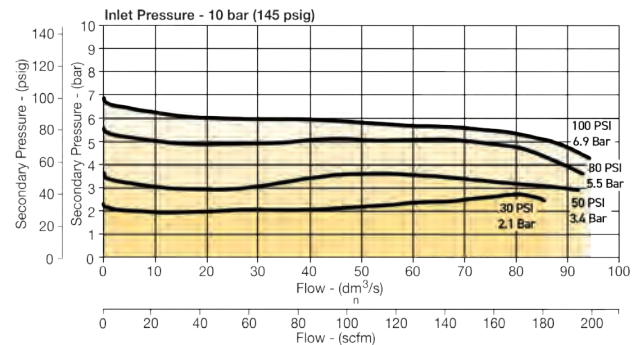
Tamperproof Lock and Cover Kit	RPA-96-737B
--------------------------------------	-------------

Wall Mounting Bracket –	
L-Type	GPA-96-606
T-Type	GPA-96-602

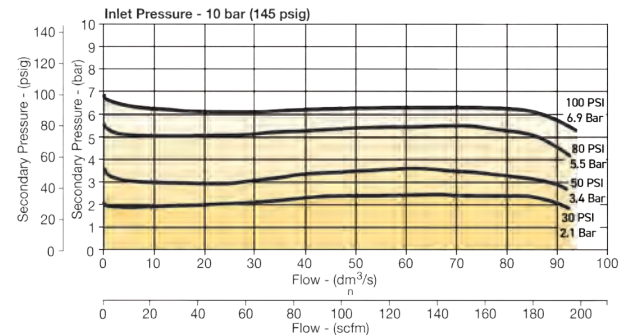
R18 1/4" Regulator



R18 3/8" Regulator



R18 1/2" Regulator

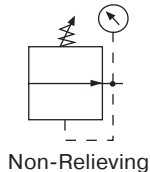
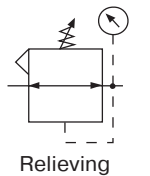


Ordering Information

Model Type	Port Size	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)
Relieving	1/4	R18-02-F0G0B	R18-02-G0G0B	R18-02-D0G0B	R18-02-F000B
	3/8	R18-03-F0G0B	R18-03-G0G0B	R18-03-D0G0B	R18-03-F000B
	1/2	R18-04-F0G0B	R18-04-G0G0B	R18-04-D0G0B	R18-04-F000B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R16



R16-02-000

Features

- Non-Rising Adjustment Knob with Friction Lock Knob
- Standard with Two Full Flow 1/4" NPT / BSPT-Rc Gauge Ports
- Panel Mount Nut
- High Flow Capacity
- Balanced Valve Design for Excellent Regulation Characteristics

Specifications

Flow Capacity*	1/4	71.5 SCFM (33.7 dm ³ /s)
	3/8	80.5 SCFM (38.0 dm ³ /s)
	1/2	88.0 SCFM (41.5 dm ³ /s)
Adjusting Range Pressure		0 to 60 PSIG (0 to 4.1 bar)
		0 to 125 PSIG (0 to 8.6 bar)
		0 to 250 PSIG (0 to 17.2 bar)

Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	1.7 (0.77)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Body	Zinc
Bonnet	PBT
Diaphragm	Nitrile / Zinc
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

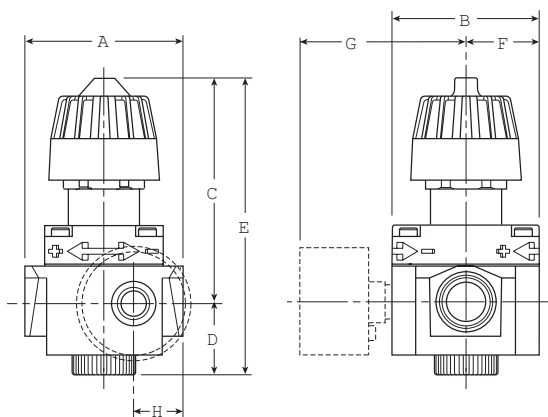
WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



NOTE: 1.31" Dia. (33.3 mm) hole required for panel nut mounting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit R16-XX-000		2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	— —	1.02 (25.9)
With Gauge R16-XX-G00		2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	2.80 (71)	1.02 (25.9)

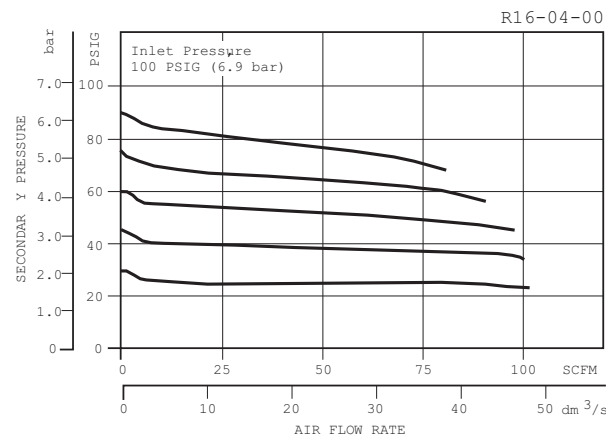
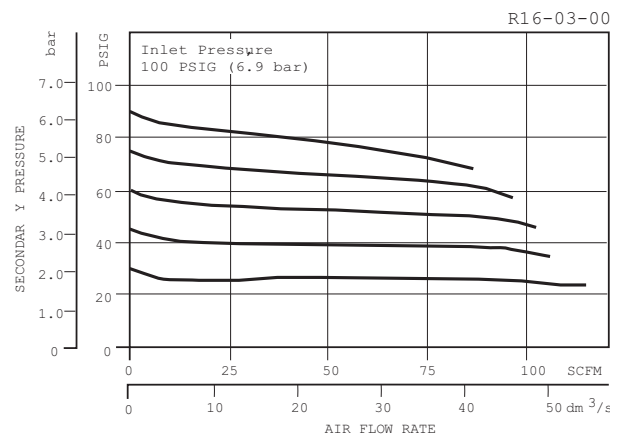
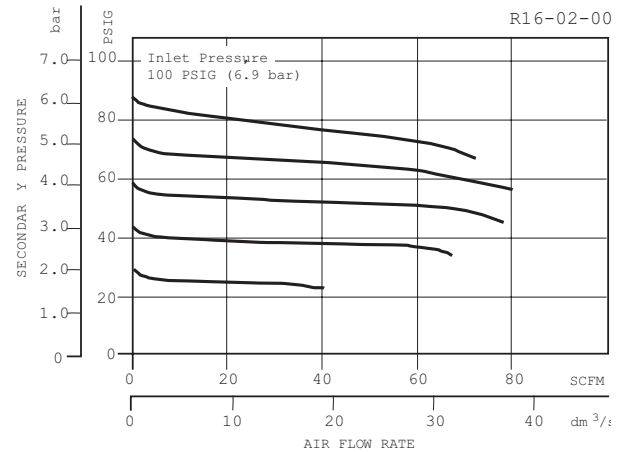
 = "Most Popular"

Replacement Kits

Adjusting Knob	RRP-95-023
Diaphragm Assembly –	
Non-relieving	RRP-96-216
Self-relieving	RRP-96-213
Spring, Regulating –	
0 to 50 PSIG (0 to 3.4 bar)	RRP-95-222
0 to 125 PSIG (0 to 8.6 bar)	RRP-95-224
0 to 250 PSIG (0 to 17.2 bar)	RRP-95-218
Valve Assembly –	
Valve, Valve Spring, Bottom Plug O-ring	RRP-96-215

Accessories

Gauge, Pressure –	
0 to 60 PSIG (0 to 4 bar), 2" Dial Face, 1/4 NPT, CBM	K4520N14060W
0 to 160 PSIG (0 to 11 bar), 2" Dial Face, 1/4 NPT, CBM	K4520N14160W
0 to 300 PSIG (0 to 20 bar), 2" Dial Face, 1/4 NPT, CBM	K4520N14300W
0 to 160 PSIG, 1-3/4" Digital Round	K4517N14160D
Panel Mount Nut, Plastic	GPA-95-032
Tamper Resistant Kit, Ring Style	RPA-95-006
Wall Mounting Bracket, Gauge Port Adapter, 1/4 NPT	RRP-95-590
Wall Mounting Bracket –	
L-Type, Heavy Duty	RPA-95-090
L-Type, Standard	GPA-95-012
L-Type with Plastic Panel Mount Nut	GPA-95-011

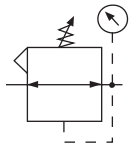


Ordering Information

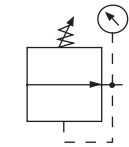
Model Type	Port Size	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)
Relieving	1/4	R16-02-000	R16-02-H00	R16-02-L00	R16-02-G00	R16-02-GH0	R16-02-GL0
	3/8	R16-03-000	R16-03-H00	R16-03-L00	R16-03-G00	R16-03-GH0	R16-03-GL0
	1/2	R16-04-000	R16-04-H00	R16-04-L00	R16-04-G00	R16-04-GH0	R16-04-GL0
Non-relieving	1/4	R16-02-N00	R16-02-HN0	R16-02-LN0	R16-02-GN0	R16-02-GHN	R16-02-GLN
	3/8	R16-03-N00	R16-03-HN0	R16-03-LN0	R16-03-GN0	R16-03-GHN	R16-03-GLN
	1/2	R16-04-N00	R16-04-HN0	R16-04-LN0	R16-04-GN0	R16-04-GHN	R16-04-GLN

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R28



Relieving



Non-Relieving



Features

- Balanced Valve Design
- Spring-loaded Diaphragm
- 4 Adjusting Pressure Ranges Available
- 3/4" NPT / BSPP-G Over-port
- Reverse-flow Available
- 2 Gauge Ports

Specifications

Flow Capacity*	3/8	228 SCFM (108 dm ³ /s, ANR)
	1/2	233 SCFM (110 dm ³ /s, ANR)
	3/4	233 SCFM (110 dm ³ /s, ANR)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2 bar)
		0 to 60 PSIG (0 to 4 bar)
		0 to 125 PSIG (0 to 8 bar)
		0 to 250 PSIG (0 to 17 bar)
Gauge Port (2 ea.)	NPT / BSPP-G	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Weight		1.37 lb. (0.62 kg)

* Inlet pressure 145 psig (10 bar). Secondary pressure 91.3 psig (6.3 bar) and 14.5 psig (1 bar) pressure drop.

Materials of Construction

Adjustment Knob	Acetal
Body	Aluminum
Body Cap	ABS
Bonnet	33% Glass-filled Nylon
Diaphragm Assembly	
Nitrile / Zinc	
Panel Nut	Acetal
Seals	Nitrile
Springs	Main Regulating Valve Steel Valve Stainless Steel
Valve Assembly	Brass / Nitrile / Acetal



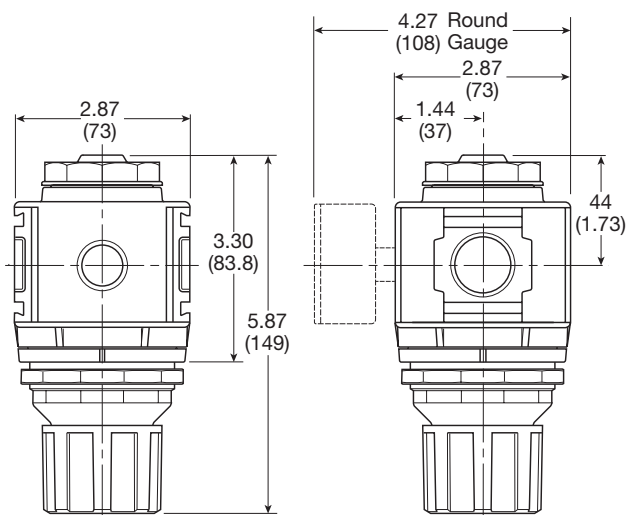
WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



Inches (mm)

NOTE: 2.40 in. (61mm) hole required for panel nut mounting.

= "Most Popular"

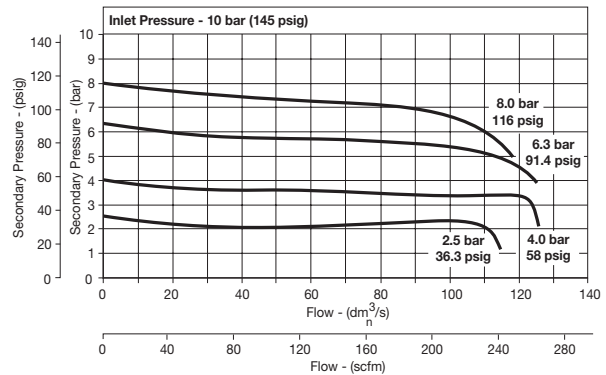
Replacement Kits

Diaphragm Assembly –	
Non-relieving	RRP-96-987
Relieving.....	RRP-96-986
Valve Assembly	RRP-96-049
Adjusting Knob.....	RRP-16-341-000
Spring, Regulating	
0 to 30 PSIG (0 to 2.1 bar)	RRP-96-163
0 to 60 PSIG (0 to 4.1 bar)	RRP-96-164
0 to 125 PSIG (0 to 8.6 bar)	RRP-96-165
0 to 250 PSIG (0 to 17.2 bar).....	RRP-96-166

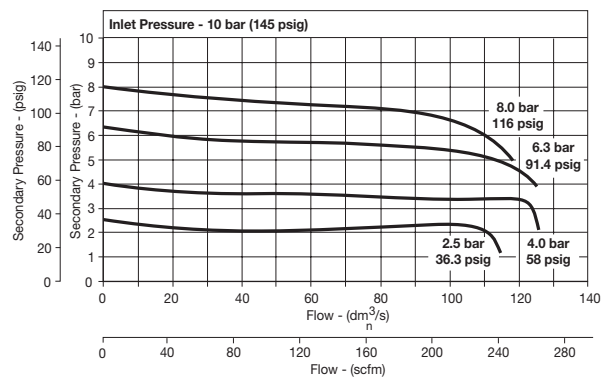
Accessories

Panel Mount Nut –	
Aluminum	RRP-96-674
Plastic	RRP-96-676
Gauge, Pressure –	
50mm (2") round 1/4" center back mount	
0-30 PSIG / 0-2 bar.....	K4520N14030
0-60 PSIG / 0-4 bar.....	K4520N14060
0-160 PSIG / 0-11 bar.....	K4520N14160
0-300 PSIG / 0-20 bar.....	K4520N14300
0 to 160 PSIG, 1-3/4" Digital Round,	
1/4" NPT	K4517N14160D
Tamper Resistant Kit.....	RRP-96-672
Wall Mounting Bracket	
L-Type.....	GPA-96-607
T-Type	GPA-96-602

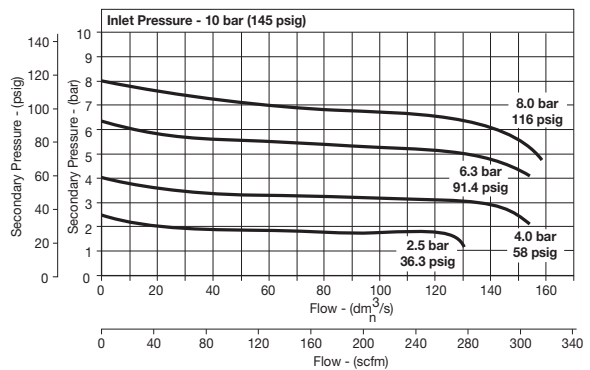
R28 3/8" Regulator



R28 1/2" Regulator



R28 3/4" Regulator

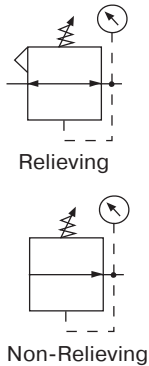


Ordering Information

Model Type	Port Size	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)
Relieving	3/8	R28-03-F0G0B	R28-03-G0G0B	R28-03-D0G0B	R28-03-F000B
	1/2	R28-04-F0G0B	R28-04-G0G0B	R28-04-D0G0B	R28-04-F000B
	3/4	R28-06-F0G0B	R28-06-G0G0B	R28-06-D0G0B	R28-06-F000B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

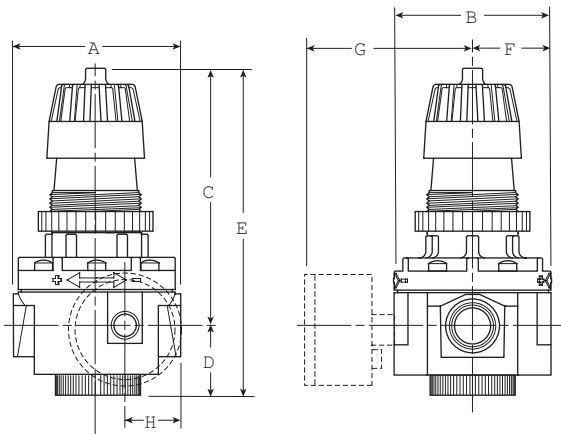
Regulator R26



R26-02-000

Features

- Non-Rising Adjustment Knob with Friction Lock Knob
- Standard with Two Full Flow 1/4" NPT / BSPT-Rc Gauge Ports
- Panel Mount Nut
- High Flow Capacity
- Balanced Valve Design for Excellent Regulation Characteristics



NOTE: 1.88" Dia. (47.8 mm) hole required for panel nut mounting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit R26-XX-000		3.35 (85)	3.10 (79)	5.13 (130.3)	1.35 (34)	6.48 (165)	1.55 (39.4)	— —	1.13 (28.7)
With Gauge R26-XX-G00		3.35 (85)	3.10 (79)	5.13 (130.3)	1.35 (34)	6.48 (165)	1.55 (39.4)	3.13 (79.5)	1.13 (28.7)

Specifications

Flow Capacity*	1/4	112 SCFM (53 dm ³ /s)
	3/8	148 SCFM (70 dm ³ /s)
	1/2	185 SCFM (87 dm ³ /s)

Adjusting Range Pressure	0 to 60 PSIG (0 to 4.1 bar)
	0 to 125 PSIG (0 to 8.6 bar)
	0 to 250 PSIG (0 to 17.2 bar)

Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
--------------------	---------------	-----

Operating Temperature	32° to 150°F (0° to 65.5°C)
-----------------------	-----------------------------

Maximum Supply Pressure	300 PSIG (21 bar)
-------------------------	-------------------

Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
-----------	--------------	---------------

Weight	lb. (kg)	2.5 (1.34)
--------	----------	------------

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Body	Zinc
Bonnet	PBT
Diaphragm	Nitrile / Zinc
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

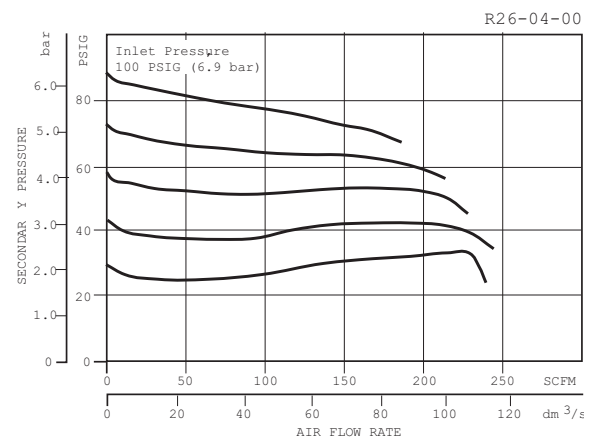
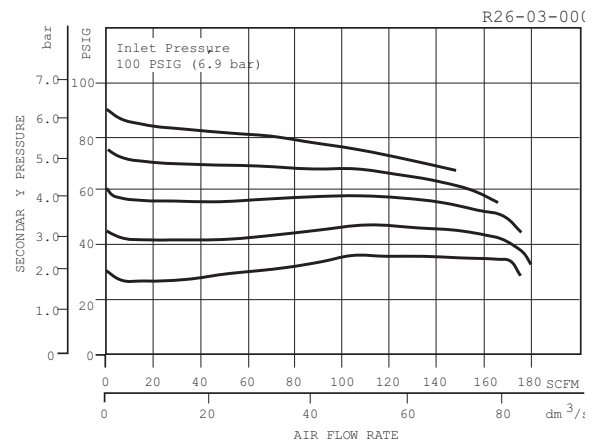
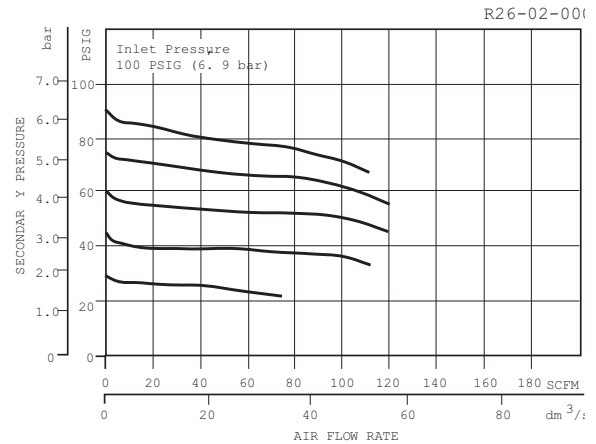
= "Most Popular"

Replacement Kits

Diaphragm Assembly –	
Non-relieving	RRP-96-332
Self-relieving.....	RRP-96-238
Knob, Adjusting –	
Used on Units with Plastic Bonnets.....	RRP-95-023
Spring, Regulating –	
0 to 60 PSIG (0 to 4,1 bar)	RRP-95-962
0 to 125 PSIG (0 to 8,6 bar)	GRP-95-225
0 to 250 PSIG (0 to 17,2 bar).....	RRP-95-219
Valve Assembly –	
Valve, Valve Spring, Bottom Plug O-ring	RRP-96-294

Accessories

Gauge, Pressure –	
0 to 60 PSIG (0 to 4 bar), 2" Dial Face, 1/4" NPT, CBM	K4520N14060W
0 to 160 PSIG (0 to 11 bar), 2" Dial Face, 1/4" NPT, CBM	K4520N14160W
0 to 300 PSIG (0 to 20 bar), 2" Dial Face, 1/4" NPT, CBM	K4520N14300W
0 to 160 PSIG, 1-3/4" Digital Round 1/4" NPT	K4517N14160D
Nut, Panel Mount, Plastic	RRP-95-954
Tamper Resistant Kit –	
Ring Style used on Plastic Bonnets	RPA-95-006
Wall Mounting Bracket –	
C-type	GPA-95-051
C-type	RPA-95-947
L-Type – Heavy Duty	GPA-95-956
Wall Mounting Bracket, Gauge Port Adapter, 1/4" NPT	
	RRP-95-590



Ordering Information

Model Type	Port Size	Without Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Without Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	Without Gauge 3 to 60 PSIG (0.2 to 4.1 bar)	With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	With Gauge 10 to 250 PSIG (0.7 to 17.2 bar)	With Gauge 3 to 60 PSIG (0.2 to 4.1 bar)
Relieving	1/4	R26-02-000	R26-02-H00	R26-02-L00	R26-02-G00	R26-02-GH0	R26-02-GL0
	3/8	R26-03-000	R26-03-H00	R26-03-L00	R26-03-G00	R26-03-GH0	R26-03-GL0
	1/2	R26-04-000	R26-04-H00	R26-04-L00	R26-04-G00	R26-04-GH0	R26-04-GL0
Non-relieving	1/4	R26-02-N00	R26-02-HN0	R26-02-LN0	R26-02-GN0	R26-02-GHN	R26-02-GLN
	3/8	R26-03-N00	R26-03-HN0	R26-03-LN0	R26-03-GN0	R26-03-GHN	R26-03-GLN
	1/2	R26-04-N00	R26-04-HN0	R26-04-LN0	R26-04-GN0	R26-04-GHN	R26-04-GLN

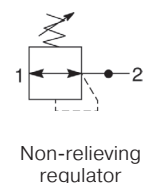
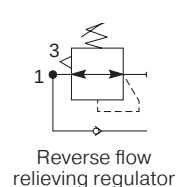
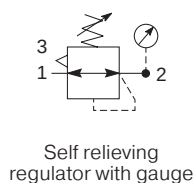
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R90



 = "Most Popular"

Symbols



Features

- Integral 3/4" or 1" ports (BSPP & NPT)
- Robust but lightweight aluminum construction
- Secondary pressure ranges 12 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus rolling diaphragm provides quick response and accurate pressure regulation
- Optional tamperproof regulator padlock
- Reverse flow / relieving option
- Low temperature -40°

R90	-	0	6	-	A	0	0	0
Series		Thread type*		Port size	Function / pressure range	Option		
Regulator R90		NPT 0	3/4 6		A Relieving / 0 to 174 PSI	0 None	G Pressure Gauge	
		BSPP C	1 8		H Relieving / 0 to 232 PSI	A† Lockable type	R Reverse Flow	

Notes:

* For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

† Not field convertible.

Bold items are most common.

Ordering information

Port size	Description	Flow† scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number †
3/4"	12 bar relieving	380	17.5 (254)	-40 (-40)	60 (140)	182 (7.2)	90 (3.5)	94 (3.7)	1.08 (2.4)	R90-06-A000
3/4"	12 bar relieving + pressure gauge	380	17.5 (254)	-10 (14)	60 (140)	182 (7.2)	90 (3.5)	94 (3.7)	1.13 (2.5)	R90-06-AG00
1"	12 bar relieving	550	17.5 (254)	-40 (-40)	60 (140)	182 (7.2)	90 (3.5)	94 (3.7)	1.08 (2.4)	R90-08-A000
1"	12 bar relieving + pressure gauge	550	17.5 (254)	-10 (14)	60 (140)	182 (7.2)	90 (3.5)	94 (3.7)	1.19 (2.6)	R90-08-AG00

† Standard part numbers shown in bold. For other models refer to Options chart above.

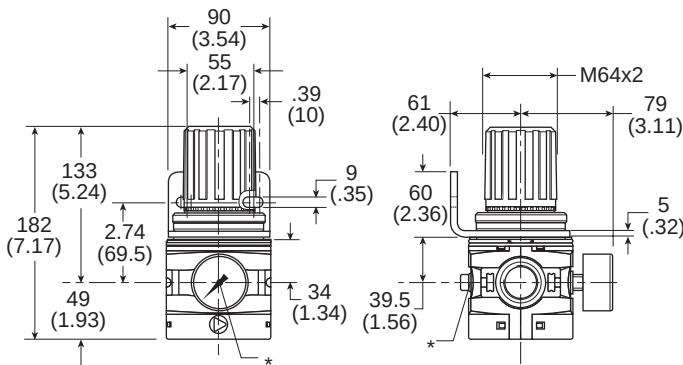
‡ Flow with 6.3 bar (91.4 psig) inlet pressure and 0.5 (7.3 psig) pressure drop.

Specifications

Fluid	Compressed air
Maximum inlet pressure*	17.5 bar (254 psig)
Temperature range*	-40°C to 60°C (-40°F to 140°F)
Typical flow with 10 bar (145 psig) inlet pressure and 6.3 bar (91 psig) set pressure and 0.5 bar (7.3 psig) pressure drop	1" size 550 scfm
Gauge port (x 2)	1/4"

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35.6°F).

Dimensions mm (inches)



* 1/4" gauge port

Service kits

Angle bracket + metal lock ring	P3YKA00MS
Panel mounting nut.....	P3YKA00MM
Diaphragm kit (relieving type).....	P3YKA00RR
Diaphragm kit (non-relieving type).....	P3YKA00RN
Gauge - 1/4" port	
0 to 10 bar (0 to 160 psig)	K4520N14160
0 to 20 bar (0 to 300 psig)	K4520N14300



WARNING

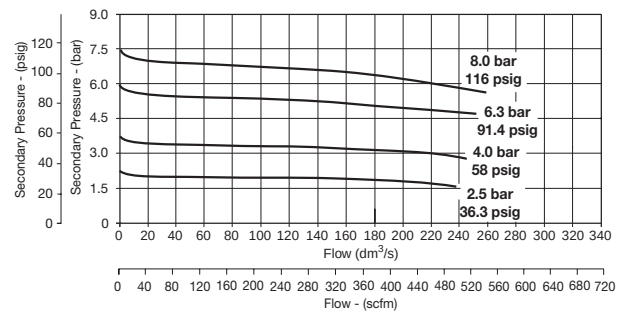
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

Material specifications

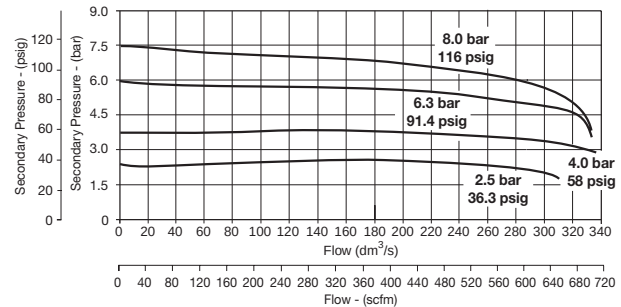
Body	Aluminum
Bonnet	Glass filled polyamide
Regulator cover	ABS
Control knob	Glass filled polyamide
Valve	Brass / NBR
Seals	Nitrile NBR
Screws	Steel / zinc plated

Flow characteristics

(3/4") Regulator



(1") Regulator



CAUTION:

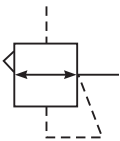
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Pilot Operated Regulator

R90

Symbol

 = "Most Popular"

Features

- Integral 3/4" or 1" ports (BSPP & NPT)
- Pilot controlled regulators can be mounted "out of reach" with pilot regulator installed in a convenient location
- Constant pilot bleed control for accurate pressure control
- Balanced poppet provides quick response
- High flow

R90

Series

Regulator R90

-

0

Thread type*

NPT 0
BSPP C

6

Port size

3/4 6
1 8

-

R

Function

R Pilot Operated

0

0

0

*Note:

For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Bold items are most common.

Ordering information

Port size	Description	Flow† scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number†
3/4"	Pilot operated regulator	550	17.5 (254)	-10 (14)	60 (140)	105.5 (4.15)	90 (3.54)	90 (3.54)	1.2 (2.6)	R90-06-R000
1"	Pilot operated regulator	550	17.5 (254)	-10 (14)	60 (140)	105.5 (4.15)	90 (3.54)	90 (3.54)	1.2 (2.6)	R90-08-R000

† Standard part numbers shown in bold. For other models refer to Options chart above.
‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.4 psig) set pressure and 1 bar (14.5 psig) pressure drop.

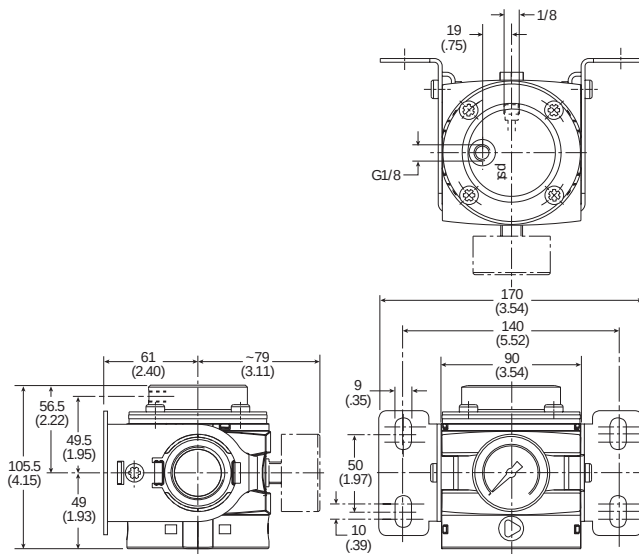
Specifications

Fluid	Compressed air
Max. pressure air pilot operated	17.5 bar (254 psig)
Operating temperature	-10°C to 60°C (14°F to 140°F)
Weight	3/4" 1.2 kg (2.6 lb)
	1" 1.2 kg (2.6 lb)

Material specifications

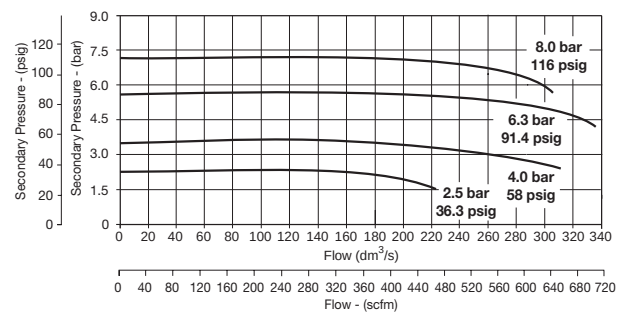
Body	Aluminum
Body cover	ABS
Valve	Brass / NBR composite
Pilot valve booster	Aluminum
Seals	Nitrile NBR
Screws	Zinc plated steel

Dimensions mm (inches)



Flow characteristics

3/4" and 1" Pilot Regulator



WARNING

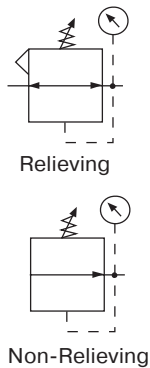
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Regulator R30



R30-06-000

Features

- Balanced Valve Design
- Standard Self-Relieving
- Two 1/4 NPT / BSPT-Rc Gauge Ports Standard – Can Be Used for Additional Outlet Ports
- Piston Operated
- High Flow Capacity

Specifications

Flow Capacity*	3/4 1	481 SCFM (227 dm ³ /s) 500 SCFM (236 dm ³ /s)
Adjusting Range Pressure	0 to 125 PSIG (0 to 8.6 bar) 0 to 180 PSIG (0 to 12.4 bar)	
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	3/4, 1
Weight	lb. (kg)	6 (2.7)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

Materials of Construction

Body	Zinc
Bonnet	Zinc
Piston	Zinc
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Steel

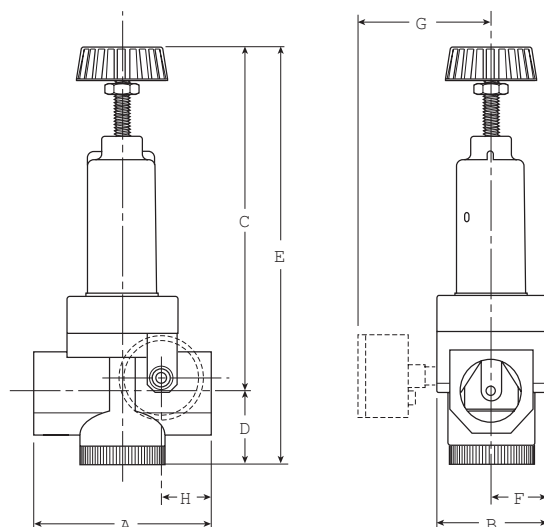
⚠ WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit R30-XX-000		4.33 (110)	2.65 (67)	8.62 (218.9)	1.75 (44)	10.37 (263)	1.33 (34)	—	1.23 (31.2)
With Gauge R30-XX-G00		4.33 (110)	2.65 (67)	8.62 (218.9)	1.75 (44)	10.37 (263)	1.33 (34)	2.99 (76)	1.23 (31.2)

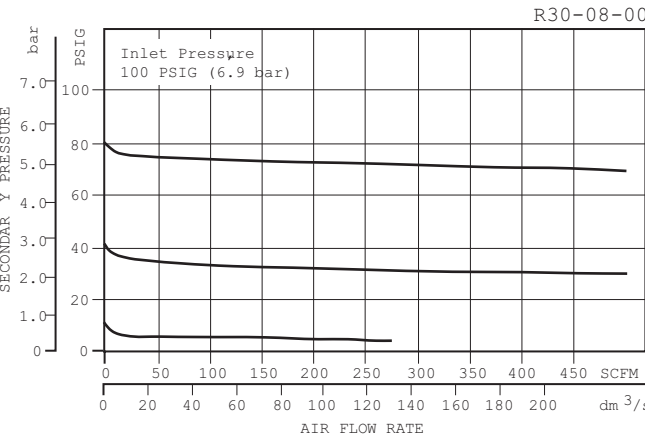
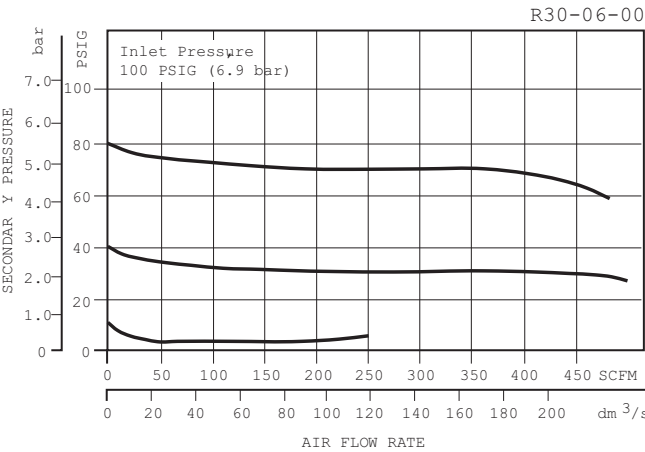
= “Most Popular”

Replacement Kits

- Piston Assembly –
Non-relieving RRP-95-451
Relieving..... RRP-95-964
- Spring, Regulating –
0 to 125 PSIG (0 to 8.6 bar) RRP-95-226
0 to 180 PSIG (0 to 12.4 bar)..... RRP-95-220
- Valve Assembly –
Valve, Valve Spring, Bottom Plug O-ring RRP-95-159

Accessories

- Gauge, Pressure –
0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
1/4" NPT, CBM K4520N14160
0 to 300 PSIG (0 to 20 bar), 2" Dial Face,
1/4" NPT, CBM K4520N14300
0 to 160 PSIG, 1-3/4" Digital Round,
1/4" NPT K4517N14160D
- Wall Mounting Bracket –
Gauge Port Adapter, 1/4" NPT RRP-95-590
U-bolt Pipe Clamp GRP-95-734

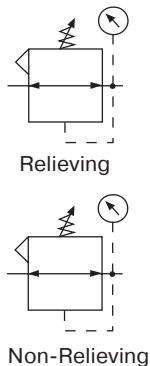


Ordering Information

Model Type	Port Size	Standard Pressure 10 to 125 PSIG (0.7 to 8.6 bar)	High Pressure 10 to 180 PSIG (0.7 to 12.4 bar)
Relieving	3/4	R30-06-000	R30-06-H00
	1	R30-08-000	R30-08-H00
Non-relieving	3/4	R30-06-N00	R30-06-HN0
	1	R30-08-N00	R30-08-HN0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator R40



R40-0B-000

Features

- Balanced Valve Design
- Standard Self-Relieving
- Two 1/4 NPT / BSPT-Rc Gauge Ports Standard – Can Be Used for Additional Outlet Ports
- Piston Operated
- High Flow Capacity

Specifications

Flow Capacity*	1-1/2, 2	1200 SCFM (566 dm ³ /s)
Adjusting Range Pressure	0 to 125 PSIG (0 to 8.6 bar) 0 to 180 PSIG (0 to 12.4 bar)	
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	1-1/2, 2
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	10.8 (4.9)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 85 PSIG (5.9 bar).

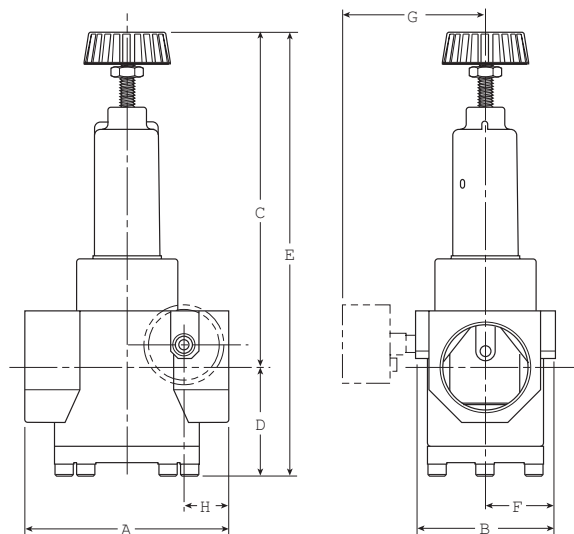
Materials of Construction

Body	Zinc
Bonnet	Zinc
Piston	Zinc
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit R40-XX-000		5.30 (135)	3.63 (92)	9.05 (230)	2.83 (72)	11.88 (302)	1.82 (43)	— —	1.15 (29.2)
With Gauge (order separately) R40-XX-XXX		5.30 (135)	3.63 (92)	9.05 (230)	2.83 (72)	11.88 (302)	1.82 (43)	4.02 (102)	1.15 (29.2)

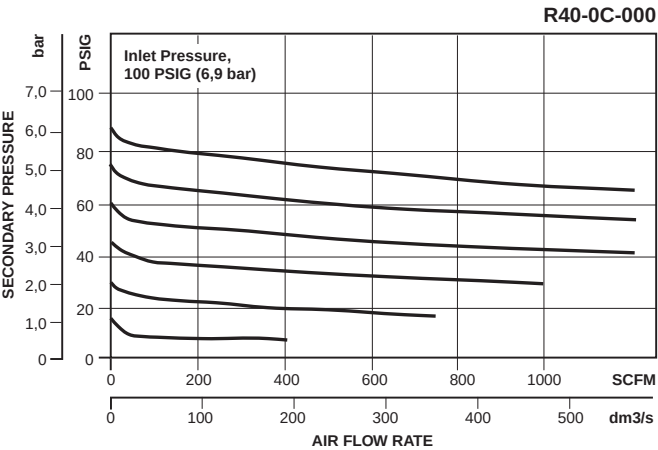
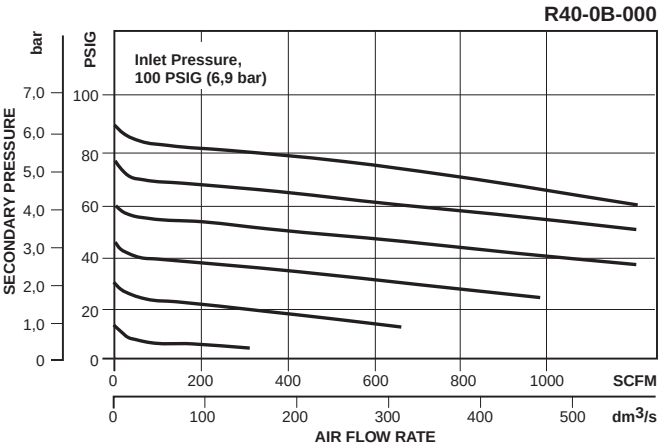
= “Most Popular”

Replacement Kits

- Piston Assembly –
- Non-relieving RRP-95-451
- Relieving..... RRP-95-964
- Spring, Regulating –
- 0 to 125 PSIG (0 to 8.6 bar) RRP-95-226
- 0 to 180 PSIG (0 to 12.4 bar)..... RRP-95-220
- Spring, Valve RRP-95-024
- Valve Assembly (Non-relieving) –
- Valve, Valve Spring RRP-95-162
- Valve Assembly (Self-relieving) –
- Valve, Valve Spring, Ret. Ring, O-rings RRP-95-161

Accessories

- Gauge, Pressure –
- 0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
- 1/4" NPT, CBM K4520N14160
- 0 to 300 PSIG (0 to 20 bar), 2" Dial Face,
- 1/4" NPT, CBMK4520N14300
- 0 to 160 PSIG, 1-3/4" Digital Round,
- 1/4" NPT K4517N14160D
- Wall Mounting Bracket, Gauge Port Adapter,
- 1/4" NPT RRP-95-590



Ordering Information

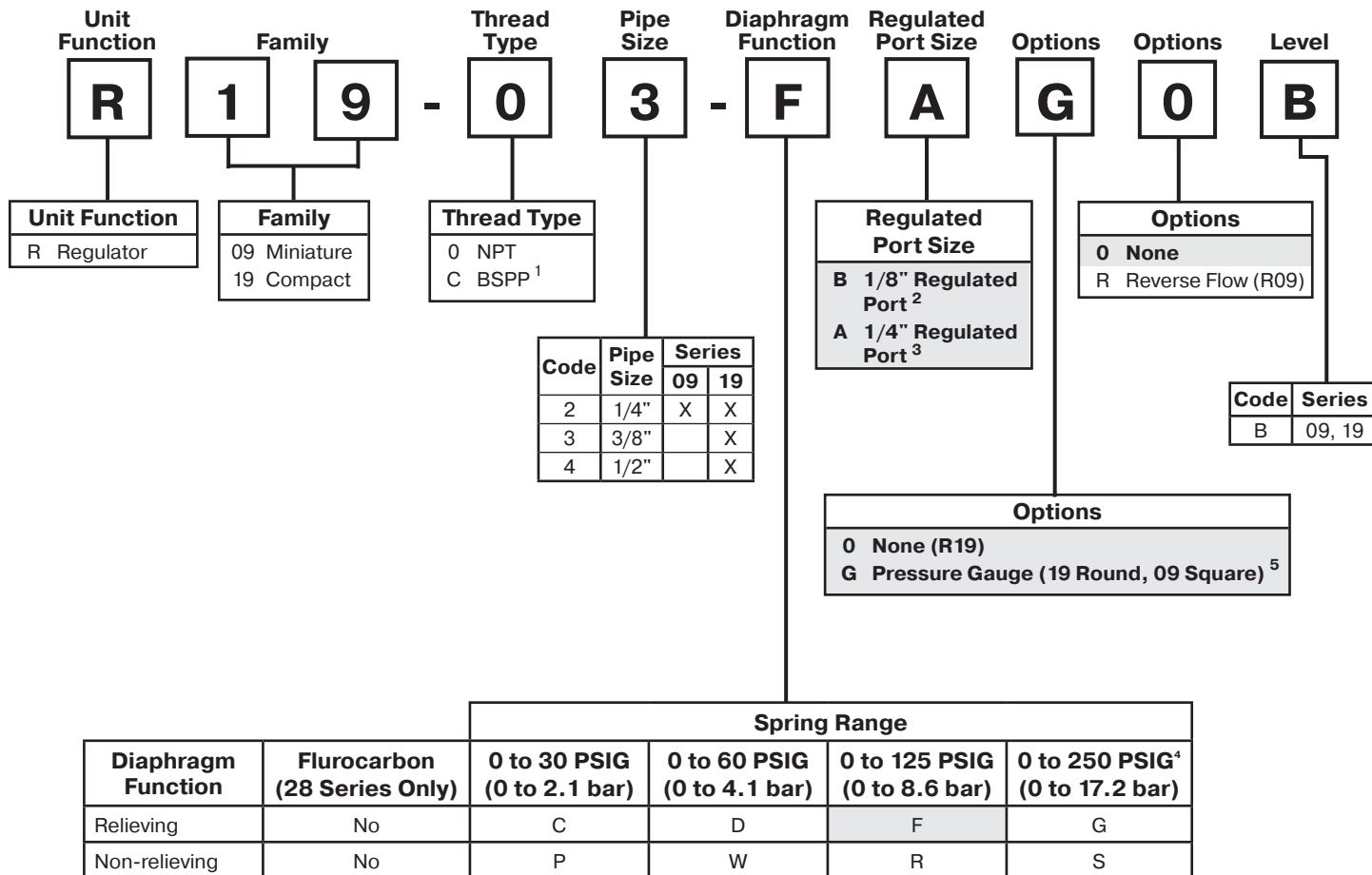
Model Type	Port Size	Without Gauge 10 to 125 PSIG (0.7 to 8.6 bar)	High Pressure 10 to 180 PSIG (0.7 to 12.4 bar)
Relieving	1-1/2	R40-0B-000	R40-0B-H00
	2	R40-0C-000	R40-0C-H00
Non-relieving	1-1/2	R40-0B-N00	R40-0B-HN0
	2	R40-0C-N00	R40-0C-HN0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Common-P1 Regulator Numbering System

 = "Most Popular"



¹ ISO, R228 (G Series)

² Not available on R19

³ Not available on R09

⁴ R09 series operating range 0 to 232 PSIG (1 to 16 bar)

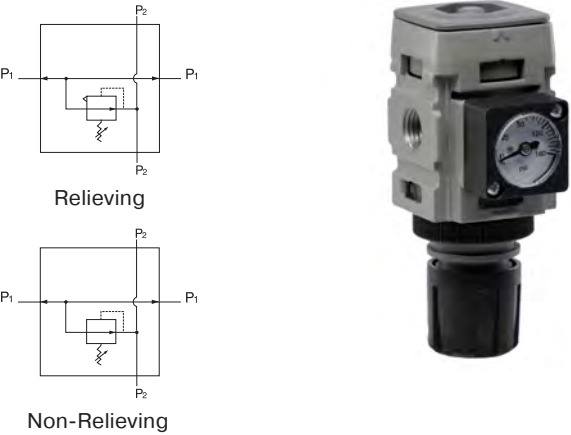
⁵ Square gauge is included with all R09

Note: When selecting from the options columns, please enter letters in alphabetical order, for example:

R 0 9 - 0 2 - F A G 0 B

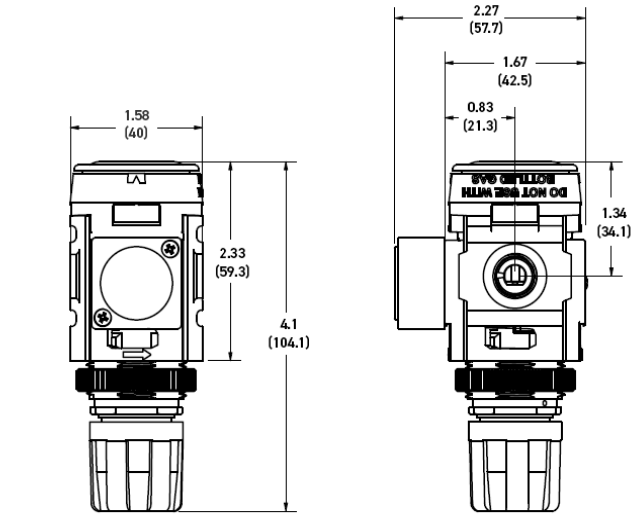
Common-P1 Regulator

R09



Features

- Balanced Valve Design
- 2 Regulated Ports
- Light Weight
- Modern Modular Design and Appearance



Inches (mm)

NOTE: 1.90 in. (48mm) hole required for panel nut mounting.

Specifications

Flow Capacity*	1/4	42 SCFM (20 dm ³ /s)
Adjusting Range Pressure	0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar)	
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	-4° to 150°F (-20° to 65.5°C)	
P1 Port Size (Inlet / Outlet)	NPT / BSPP-G	1/4
P2 Regulated Ports (2 ea.)	NPT / BSPP-G	1/8
Weight	0.37 lb (0.17 kg)	

* Inlet pressure 145 PSIG (10 bar). Secondary pressure 100 PSIG (6.9 bar).

Gauge supplied with every part. Gauge can be installed on the front or back of the regulator. If no gauge is installed, both seal screws must be installed.

Materials of Construction

Adjustment Knob	Acetal
Body	Aluminum
Bottom Cap	Glass-filled Nylon
Bonnet	Glass-filled Nylon
Diaphragm Assembly	Stainless Steel / Nitrile
Valve Assembly	Acetal / Nitrile

**WARNING**

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Replacement Kits

Adjusting Knob..... GRP-96-792

Accessories

Panel Mount Nut –
AluminumRPA-96-773
PlasticRPA-96-734

Pressure Gauge– (*see note below)

Square flush mount gauge

0-4 bar.....	GRP-96-791-04B
0-11 bar.....	GRP-96-792-11B
0-20 bar.....	GRP-96-791-20B
0-60 PSIG.....	GRP-96-791-060
0-160 PSIG.....	GRP-96-791-160
0-290 PSIG.....	GRP-96-791-290

*For R08/R09 Regulators with date code after November 2023 (4423 Date Code), please use these part numbers when ordering a replacement gauge.

Square flush mount gauge

0-4 bar.....	K4511SCR04B
0-11 bar.....	K4511SCR11B
0-60 PSIG.....	K4511SCR060
0-160 PSIG.....	K4511SCR160

Square with adapter kit

0-4 bar.....	P6G-PR10040
0-11 bar.....	P6G-PR10110
0-60 PSIG.....	P6G-PR90060
0-160 PSIG.....	P6G-PR90160

50mm (2") round 1/4" center back mount

0-30 PSIG / 0-2 bar.....	K4520N14030
0-60 PSIG / 0-4 bar.....	K4520N14060
0-160 PSIG / 0-11 bar.....	K4520N14160
0-300 PSIG / 0-20 bar.....	K4520N14300

1-3/4" Digital Round 1/4" NPT

0 to 160 PSIG.....	K4517N14160D
--------------------	--------------

Tamperproof Lock and Cover Kit
(lock not included)..... RPA-96-736B

Wall Mounting Bracket –

C-Type.....	GPA-97-010
L-Type.....	GPA-96-739
T-Type.....	GPA-96-737

Ordering Information

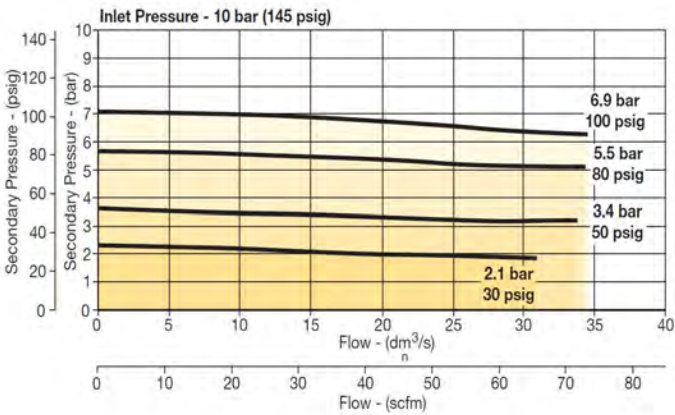
All P2 Regulated Ports are 1/8" Ports

Model Type	P1 Port Size	Without Gauge 0 to 125 PSIG (0 to 8.6 bar)	Without Gauge 0 to 30 PSIG (0 to 2.1 bar)	Without Gauge 0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/4	R09-02-FB00B	R09-02-CB00B	R09-02-DB00B
Non-relieving	1/4	R09-02-RB00B	R09-02-PB00B	R09-02-WB00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

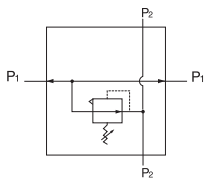
 = “Most Popular”

R09 1/4" Common Port Regulator

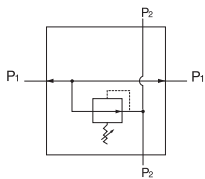


Typical Application

Common-P1 Regulator R19



Relieving

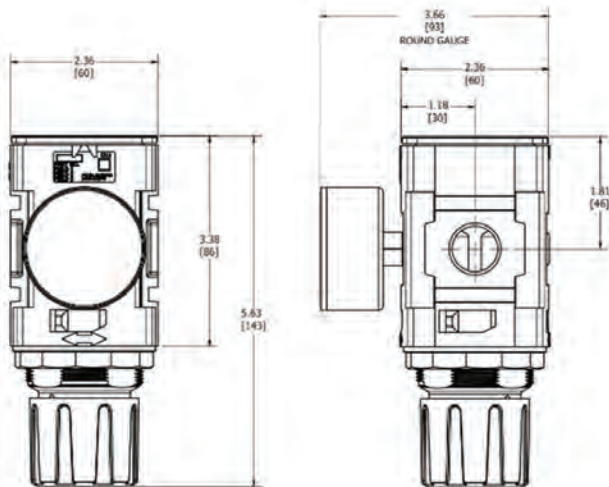


Non-Relieving



Features

- Balanced Valve Design
- Spring-loaded Diaphragm
- 4 Adjusting Pressure Ranges Available
- 1/2" NPT / BSPP-G Over-port
- 2 Regulated Ports



NOTE: 1.90 in. (48mm) hole required for panel nut mounting.

Inches (mm)

Specifications

Flow Capacity*	1/4, 3/8, 1/2	94.0 SCFM (44 dm ³ /s)
Adjusting Range Pressure	0 to 30 PSIG (0 to 2.1 bar) 0 to 60 PSIG (0 to 4.1 bar) 0 to 125 PSIG (0 to 8.6 bar) 0 to 250 PSIG (0 to 17.2 bar)	
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	-13° to 150°F (-25° to 65.5°C)	
P1 Port Size (Inlet / Outlet)	NPT / BSPP-G	1/4, 3/8, 1/2
P2 Regulated Ports (2 ea.)	NPT / BSPP-G	1/4
Weight	1.21 lb (0.55 kg)	

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar) and 14.5 psig (1 bar) pressure drop.

Materials of Construction

Adjustment Knob	Acetal	
Body	Aluminum	
Body Cap	ABS	
Bonnet	33% Glass-filled Nylon	
Bottom Plug	33% Glass-filled Nylon	
Diaphragm Assembly	Nitrile / Stainless Steel	
Panel Nut	Acetal	
Seals	Nitrile	
Springs	Main Regulating Valve	Steel Stainless Steel
Valve Assembly	Acetal / Nitrile	



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

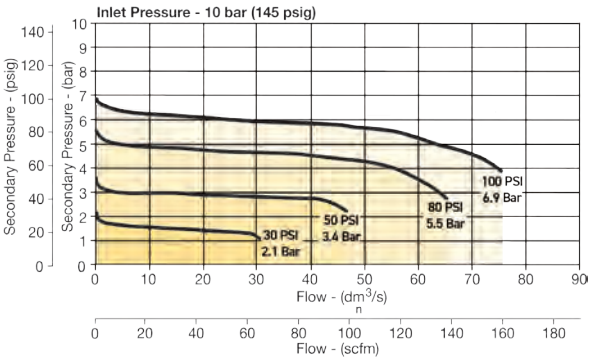
Replacement Kits

- Spring, Regulating–
- 0 to 30 PSIG (0 to 2.1 bar)RRP-96-659B
 - 0 to 60 PSIG (0 to 4.1 bar)RRP-96-660B
 - 0 to 125 PSIG (0 to 8.6 bar)RRP-96-661B
 - 0 to 250 PSIG (0 to 17.2 bar).....RRP-96-662B

Accessories

- Gauge, Pressure –
- 50mm (2") round 1/4" center back mount
 - 0-30 PSIG / 0-2 bar..... K4520N14030
 - 0-60 PSIG / 0-4 bar..... K4520N14060
 - 0-160 PSIG / 0-11 bar..... K4520N14160
 - 0-300 PSIG / 0-20 bar..... K4520N14300
 - 0 to 160 PSIG, 1-3/4" Digital Round, 1/4" NPT K4517N14160D
- Panel Mount Nut –
- Aluminum RRP-96-673
 - Plastic RRP-96-675
- Tamper Resistant Kit..... RRP-96-671
- Wall Mounting Bracket –
- L-Type..... GPA-96-606
 - T-Type GPA-96-603

R19 Common Port Regulator



Typical Application

Ordering Information

All units shown with 1/4" regulated ports.

Model Type	P1 Port Size	5-125 PSIG (0.4 to 8.6 bar)	10-250 PSIG (0.7 to 7.2 bar)	3-60 PSIG (0.2 to 4.1 bar)
Relieving	1/4	R19-02-FA00B	R19-02-GA00B	R19-02-DA00B
	3/8	R19-03-FA00B	R19-03-GA00B	R19-03-DA00B
	1/2	R19-04-FA00B	R19-04-GA00B	R19-04-DA00B
Non-relieving	1/4	R19-02-RA00B	R19-02-SA00B	R19-02-WA00B
	3/8	R19-03-RA00B	R19-03-SA00B	R19-03-WA00B
	1/2	R19-04-RA00B	R19-04-SA00B	R19-04-WA00B

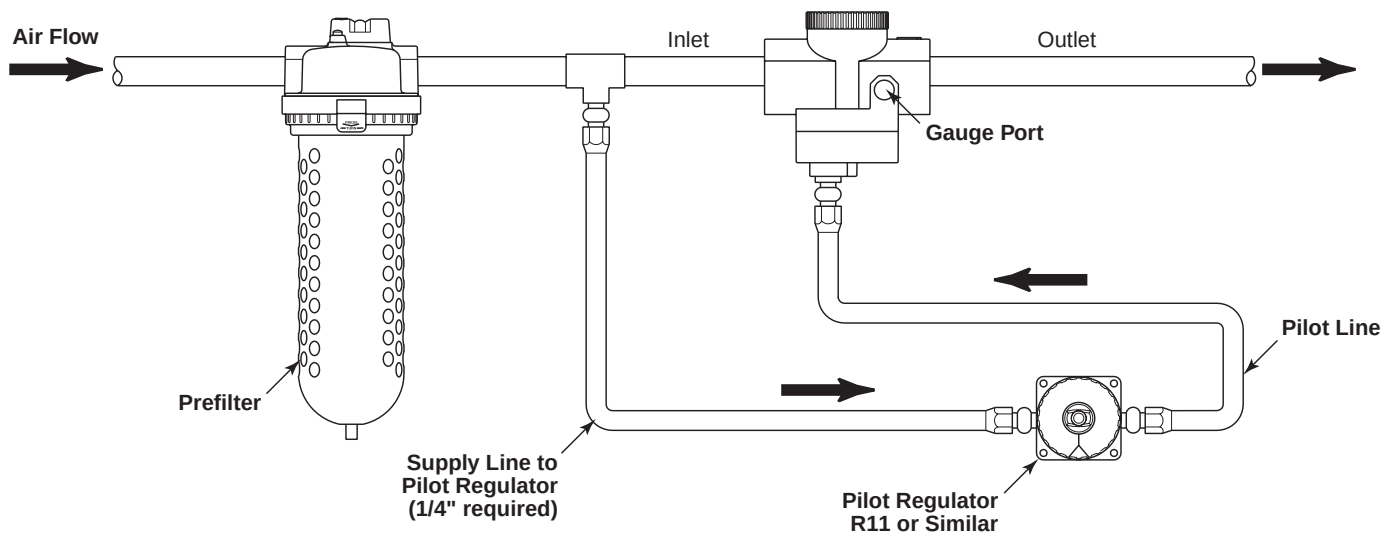
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Principal Regulator (Remote Operated) – R21 / 31 / 41-XX-RXX

Remote-control Dial-Air™ Regulator

Incorporates all the features of the standard Dial-Air™ Regulator plus the additional advantage of remote installation using the R11 model Pilot Regulator. Maximum inlet operating pressure and temperature ratings are 300 PSIG (20.7 bar) and 150°F (65.5°C).

The Remote-control Dial-Air™ Regulators are available in five pipe sizes, with 1/4" NPT connections on the pilot regulator and pilot port of remote-controlled regulators. Typical installation is shown below. For other remote models, see R21, R31 & R41.

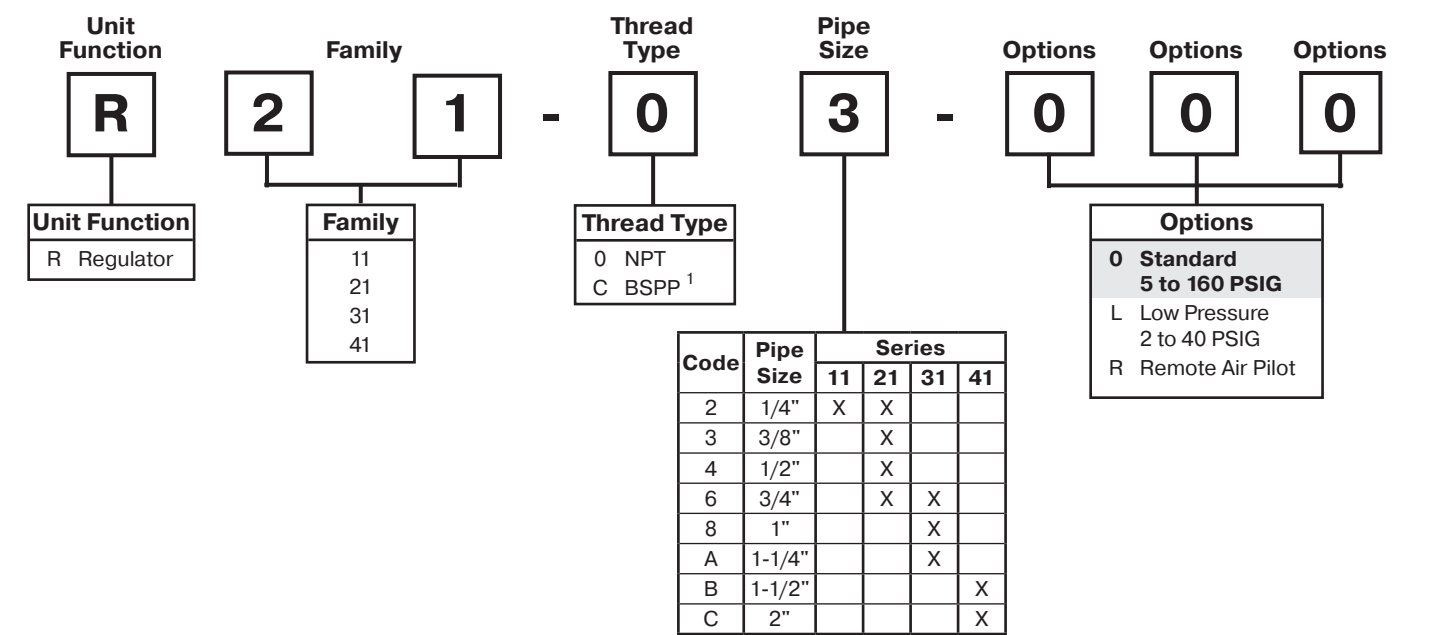


Dial-Air™

Dial-Air™ regulators feature a transparent, pressure-calibrated, non-rising adjustment dial for quick adjustment of secondary pressure. If a gauge (R21, R31, R41) is required for monitoring reasons, two 1/4" gauge ports are provided; however, these are usually used for additional outlet ports. The full reduced pressure range can be dialed in less than 270° of dial rotation. This feature is particularly advantageous if secondary pressure must be changed frequently. The transparent dial can be color or graphics coded for easy reference to required pressure changes. Dial-Air™ regulators can be mounted in any position so dial face is always visible. All Dial-Air™ units have a slight constant air bleed: 0.05 SCFM (0.024 dm³/s), @100 PSIG (6.9 bar) inlet and 90 PSIG (6.2 bar) outlet.

Dial-Air™ Regulator Numbering System

= “Most Popular”



Dial-Air™ Regulator

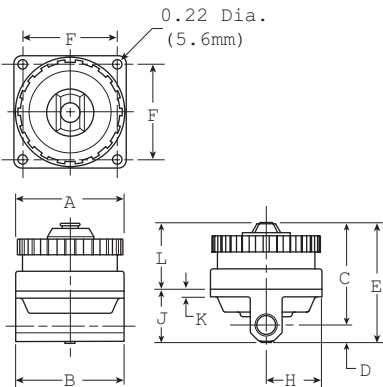
R11



R11-02-000

Features

- Pressure Reference Indicating Dial Face
- Non-rising Pressure Adjustment Knob
- Self-Relieving
- Full Pressure Adjustment in Less Than One Full Turn
- Recommended for Pilot-Air Applications (Low Flow)



NOTE: Panel mounting requires (2) 11/16" (69mm) diameter holes and (4) 7/32" (5.5mm) screw holes. Unit can be mounted on material up to 1-1/4" (32mm) thick.

Dimensions

Model	Inches (mm)	A	B	C	D	E	F	H	J	K	L
Standard Unit R11-02-000		2.60 (66)	2.60 (66)	2.40 (60.9)	.40 (10)	2.80 (71)	2.20 (55.9)	1.30 (33)	1.25 (31.8)	.18 (4.6)	1.56 (39.6)

Specifications

Flow Capacity*	1/4	0.8 SCFM (0.377 dm³/s)
Adjusting Range Pressure		0 to 40 PSIG (0 to 2.8 bar) 0 to 160 PSIG (0 to 11 bar)
Bleed Rate		0.05 SCFM (0.024 dm³/s)
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Weight	lb. (kg)	1.3 (0.5)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

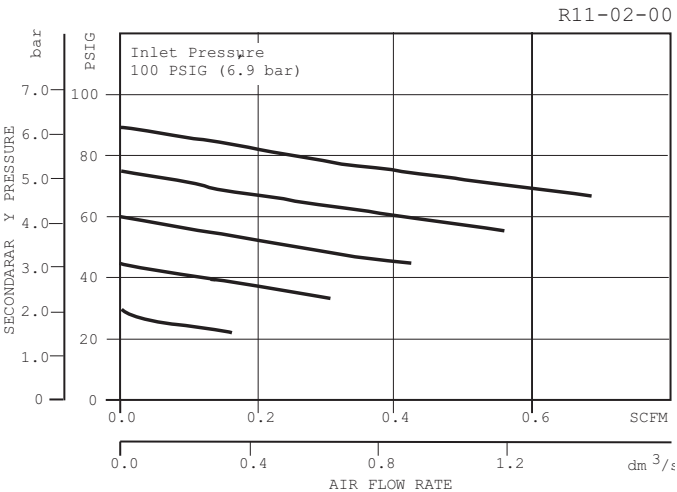
= “Most Popular”

Replacement Kits

- Conversion Kit (Series A to Series B) RRP-95-765
- O-ring, Repair Kit GRP-95-260
- Spring, Regulating, Belleville Washer –
 - 2 to 40 PSIG (0.1 to 3 bar) RRP-95-906
 - 5 to 160 PSIG (0.4 to 11 bar)..... RRP-95-905
- Valve, Pilot with O-ring and Valve Spring RRP-96-934

Accessories

- Tamper Resistant Kit..... RRP-95-585



Ordering Information

Model Type	Port Size	Standard Pressure 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)
Pilot	1/4	R11-02-000	R11-02-L00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

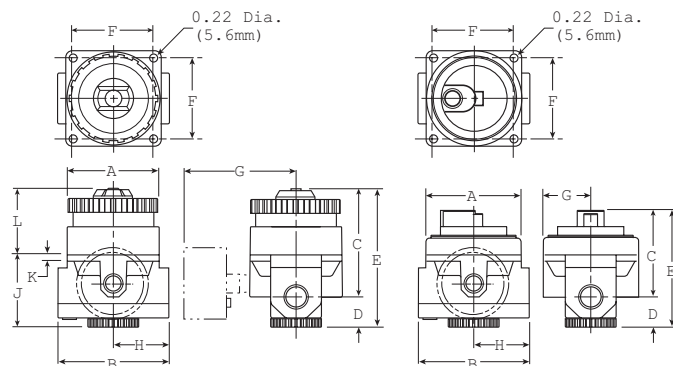
Dial-Air™ Regulator R21

 = "Most Popular"

R21-02-000

Features

- Balanced Valve Design
- Non-Rising Pressure Adjusting Dial
- High-Relief Flow (3/16" Relief Orifice)
- Two 1/4" NPT Gauge Ports, Usually Used for Additional Outlets
- Piston Operated


Remote Operated

NOTE: Panel mounting requires (2) 11/16" (69mm) diameter holes and (4) 7/32" (5.5mm) screw holes. Unit can be mounted on material up to 1-1/4" (32mm) thick.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H	J	K	L
Standard Unit R21-XX-000		2.60 (66)	3.19 (81)	3.14 (79.8)	.95 (24)	4.09 (104)	2.20 (55.9)	—	1.61 (41)	2.08 (52.8)	.18 (4.6)	2.07 (52.6)
With Gauge (order separately) R21-XX-XXX		2.60 (66)	3.19 (81)	3.14 (79.8)	.95 (24)	4.09 (104)	2.20 (55.9)	2.70 (68.5)	1.61 (41)	2.08 (52.8)	.18 (4.6)	2.07 (52.6)
Remote Operated R21-XX-R00		2.60 (66)	3.19 (81)	2.24 (56.9)	.95 (24)	3.19 (81)	2.20 (55.9)	1.33 (33.8)	1.61 (41)	2.08 (52.8)	.18 (4.6)	1.11 (28.2)

Specifications

Flow Capacity*	1/4	117 SCFM (55 dm ³ /s)
	3/8	180 SCFM (85 dm ³ /s)
	1/2	195 SCFM (92 dm ³ /s)
	3/4	220 SCFM (103 dm ³ /s)
Adjusting Range Pressure	0 to 40 PSIG (0 to 2.8 bar) 0 to 160 PSIG (0 to 11 bar)	
Bleed Rate	0.05 SCFM (0.024 dm ³ /s)	
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2, 3/4
Remote Pilot Port Size	1/4	
Weight	lb. (kg)	2.3 (1.04)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure (1/4, 1/2 & 3/4) 90 PSIG (6.2 bar); (3/8) 80 PSIG (5.5 bar).

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= "Most Popular"

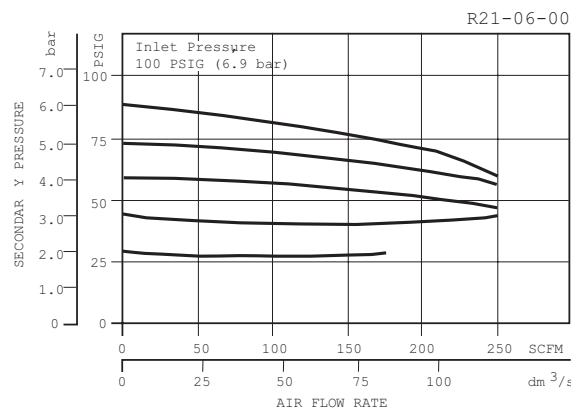
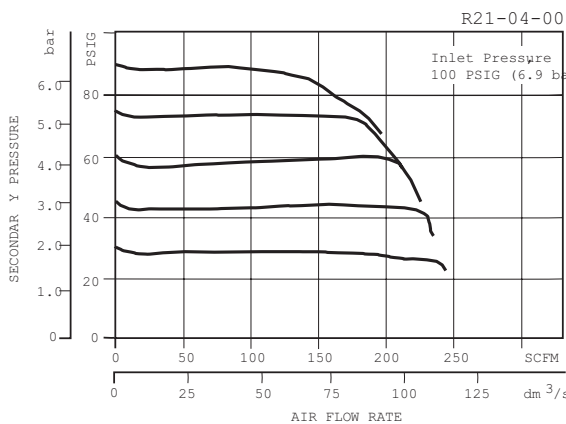
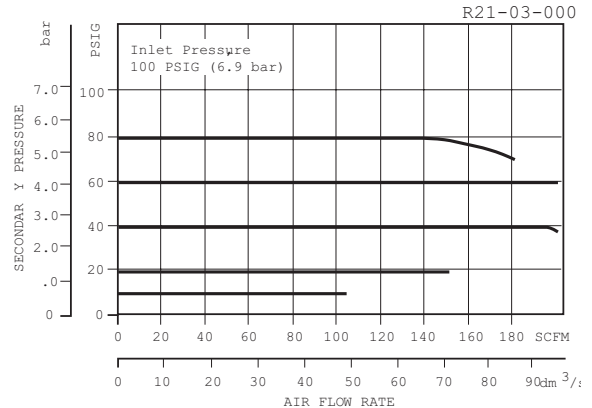
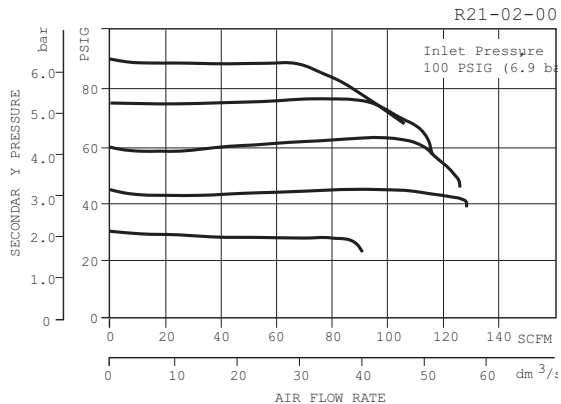
Replacement Kits

Adjustment Dial Knob	RRP-16-024-000
Conversion Kit (Series A to Series B)	RRP-95-766
Cover Kit (Remote) –	
Bonnet and Nitrile, O-ring (Series B).....	RRP-95-910
Bonnet and Fluorocarbon, O-ring (Series B)	RRP-95-911
O-ring, Repair Kit	GRP-95-260
Piston, Bottom and O-ring Seal	RRP-95-192
Spring, Regulating, Belleville Washer –	
2 to 40 PSIG (0.1 to 3 bar)	RRP-95-906
5 to 160 PSIG (0.4 to 11 bar).....	RRP-95-905
Valve, Main with U-cup Seal	RRP-95-151
Valve, Main with U-cup Seal and Bottom Plug –	
Nitrile Elastomers.....	RRP-95-914
Fluorocarbon Elastomers.....	RRP-95-915
Valve, Main (Remote) with U-cup Seal.....	RRP-96-952

Valve, Main (Remote) with U-cup Seal and Bottom Plug –	
Nitrile Elastomers.....	RRP-95-912
Fluorocarbon Elastomers.....	RRP-95-913
Valve, Pilot with O-ring and Valve Spring	RRP-96-934

Accessories

Wall Mounting Bracket, Gauge Port Adapter,	
1/4" NPT	RRP-95-590
Gauge, Pressure –	
0 to 60 PSIG (0 to 4 bar), 2" Dial Face,	
1/4" NPT, CBM	K4520N14060
0 to 160 PSIG (0 to 11 bar), 2" Dial Face,	
1/4" NPT, CBM	K4520N14160
0 to 160 PSIG, 1-3/4" Digital Round,	
1/4" NPT	K4517N14160D
Tamper Resistant Kit.....	RRP-95-585

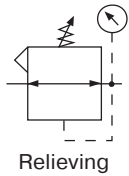


Ordering Information

Model Type	Port Size	High Flow 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)	Remote 5 to 160 PSIG (0.4 to 11 bar)
Relieving	1/4	R21-02-000	R21-02-L00	R21-02-R00
	3/8	R21-03-000	R21-03-L00	R21-03-R00
	1/2	R21-04-000	R21-04-L00	R21-04-R00
	3/4	R21-06-000	R21-06-L00	R21-06-R00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

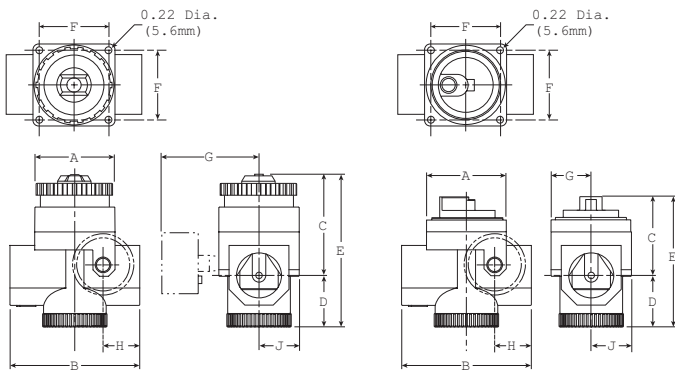
Dial-Air™ Regulator R31



R31-06-000

Features

- Balanced Valve Design
- Non-Rising Pressure Adjusting Dial
- High-Relief Flow (3/16" Relief Orifice)
- Two 1/4" NPT / BSPT-Rc Gauge Ports, Usually Used for Additional Outlets
- Piston Operated



Remote Operated

NOTE: Panel mounting requires (2) 11/16" (69mm) diameter holes and (4) 7/32" (5.5mm) screw holes. Unit can be mounted on material up to 1-1/4" (32mm) thick.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H	J
Standard Unit R31-XX-000		2.59 (66)	4.29 (109)	3.50 (88.9)	1.69 (43)	5.19 (132)	2.20 (55.9)	—	1.23 (31.2)	1.31 (33.3)
With Gauge (order separately) R31-XX-XXX		2.59 (66)	4.29 (109)	3.50 (88.9)	1.69 (43)	5.19 (132)	2.20 (55.9)	3.00 (76)	1.23 (31.2)	1.31 (33.3)
Remote Operated R31-XX-R00		2.59 (66)	4.29 (109)	2.63 (66.8)	1.69 (43)	4.32 (109.7)	2.20 (55.9)	1.33 (33.7)	1.23 (31.2)	1.31 (33.3)

 = "Most Popular"

Specifications

Flow Capacity*	3/4	400 SCFM (189 dm ³ /s)
	1	650 SCFM (307 dm ³ /s)
	1-1/4	700 SCFM (330 dm ³ /s)
Adjusting Range Pressure	0 to 40 PSIG (0 to 2.7 bar) 0 to 160 PSIG (0 to 11 bar)	
Bleed Rate	0.05 SCFM (0.024 dm ³ /s)	
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	3/4, 1, 1-1/4
Remote Pilot Port Size	1/4	
Weight	lb. (kg)	4.0 (1.8)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

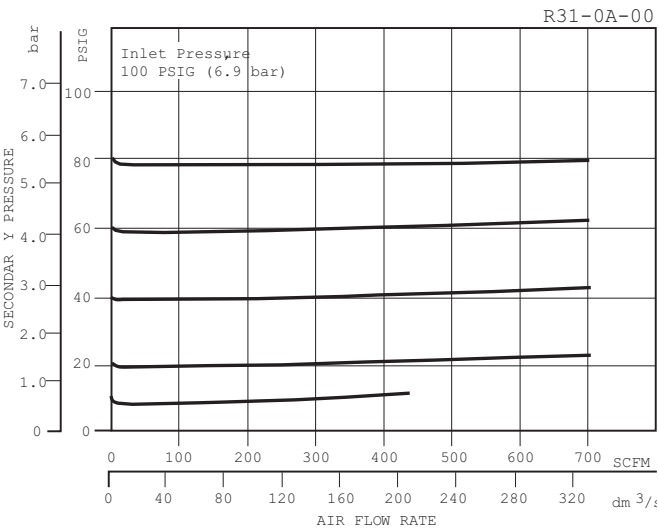
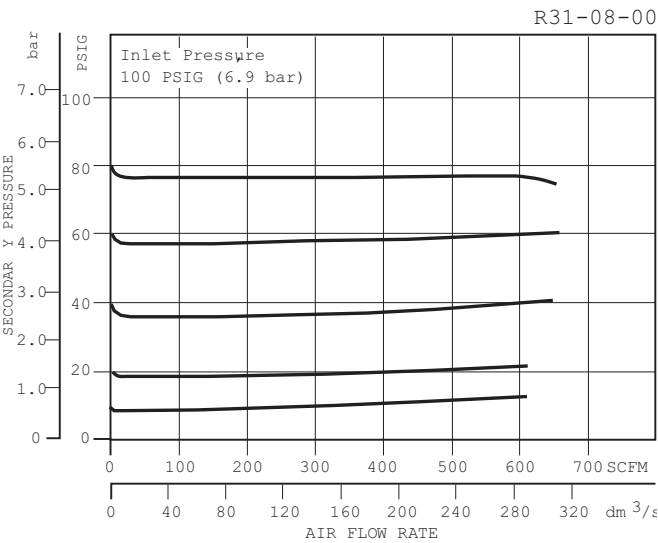
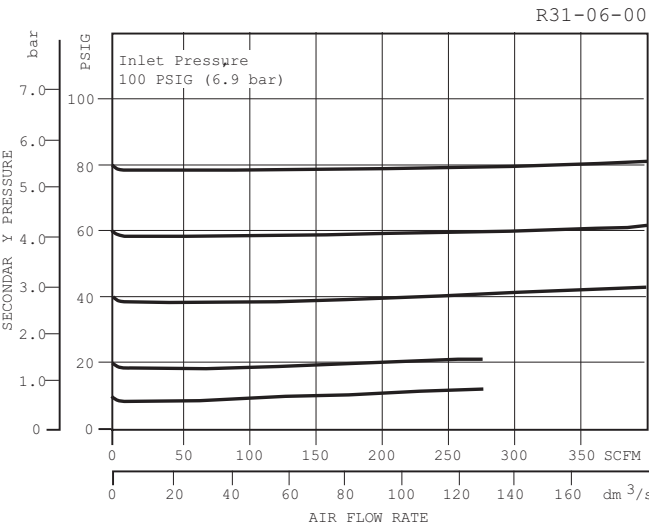
= “Most Popular”

Replacement Kits

- Adjustment Dial Knob RRP-16-024-000
- Conversion Kit (Series A to Series B) RRP-95-766
- O-ring, Repair Kit GRP-95-261
- Piston, Bottom and O-ring seal.....RRP-95-192
- Spring, Regulating, Belleville Washer –
2 to 40 PSIG (0.1 to 3 bar) RRP-95-906
5 to 160 PSIG (0.4 to 11 bar)..... RRP-95-905
- Valve, Main with O-ring Seal.....RRP-95-152
- Valve, Main (Remote) with O-ring Seal RRP-96-950
- Valve, Pilot with O-ring and Valve Spring RRP-96-935

Accessories

- Gauge, Pressure –
0 to 60 PSIG (0 to 4 bar), 2" Dial Face,
1/4" NPT, CBMK4520N14060
- 0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
1/4" NPT, CBM K4520N14160
- 0 to 160 PSIG, 1-3/4" Digital Round,
1/4" NPT K4517N14160D
- Tamper Resistant Kit..... RRP-95-585
- Wall Mounting Bracket, Gauge Port Adapter,
1/4" NPT RRP-95-590

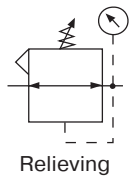


Ordering Information

Model Type	Port Size	High Flow 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)	Remote 5 to 160 PSIG (0.4 to 11 bar)
Relieving	3/4	R31-06-000	R31-06-L00	R31-06-R00
	1	R31-08-000	R31-08-L00	R31-08-R00
	1-1/4	R31-0A-000	R31-0A-L00	R31-0A-R00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Dial-Air™ Regulator R41

 = "Most Popular"


R41-0B-000

Features

- Balanced Valve Design
- Non-Rising Pressure Adjusting Dial
- High-Relief Flow (3/16" Relief Orifice)
- Two 1/4" NPT / BSPT-Rc Gauge Ports, Usually Used for Additional Outlets
- Piston Operated

Specifications

Flow Capacity*	1-1/2, 2	1600 SCFM (755 dm ³ /s)
Adjusting Range Pressure	0 to 160 PSIG (0 to 11 bar)	
Bleed Rate	0.05 SCFM (0,024 dm ³ /s)	
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	1-1/2, 2
Remote Pilot Port Size	1/4	
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	9 (4.1)

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

Materials of Construction

Body	Zinc
Bonnet	Zinc / Brass
Piston	Zinc
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile / Acetal

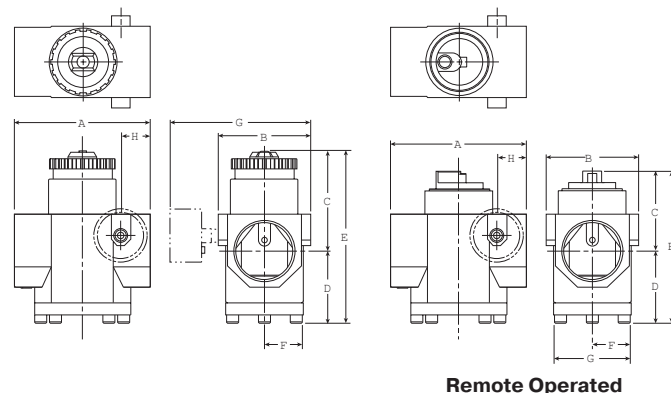
WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit R41-XX-000		5.31 (135)	3.58 (91)	4.02 (102)	2.79 (71)	6.81 (173)	1.79 (45.7)	—	1.15 (29.2)
With Gauge (order separately) R41-XX-XXX		5.31 (135)	3.58 (91)	4.02 (102)	2.79 (71)	6.81 (173)	1.79 (45.7)	5.29 (134.6)	1.15 (29.2)
Remote Operated R41-XX-R00		5.31 (135)	3.58 (91)	3.11 (78.9)	2.79 (71)	5.90 (149.8)	1.50 (38)	3.00 (76)	1.15 (29.2)

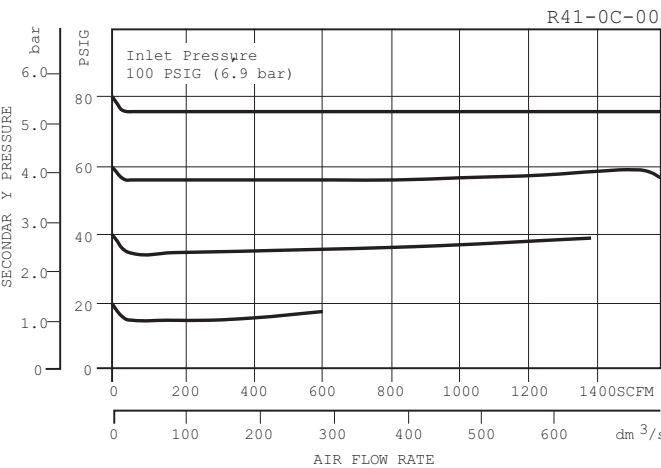
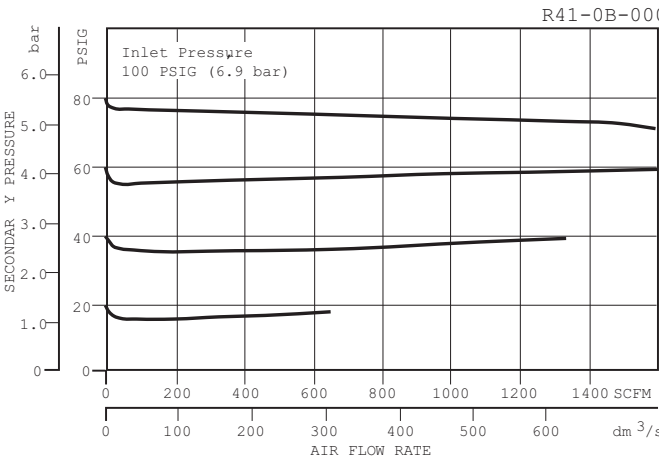
= “Most Popular”

Replacement Kits

- Adjustment Dial Knob RRP-16-024-000
- Conversion Kit (Series A to Series B) RRP-95-766
- O-ring, Repair Kit GRP-95-262
- Piston, Bottom and O-ring Seal RRP-95-192
- Spring, Regulating, Belleville Washer –
2 to 40 PSIG (0.1 to 3 bar) RRP-95-906
5 to 160 PSIG (0.4 to 11 bar) RRP-95-905
- Spring, Valve RRP-95-024
- Valve –
Main with O-ring Seal RRP-95-153
Main (Remote) with O-ring Seal RRP-96-951
Pilot with O-ring and Valve Spring..... RRP-96-935

Accessories

- Gauge, Pressure –
0 to 60 PSIG (0 to 4 bar), 2" Dial Face,
1/4" NPT, CBMK4520N14060
- 0 to 160 PSIG (0 to 11 bar), 2" Dial Face,
1/4" NPT, CBM K4520N14160
- 0 to 160 PSIG, 1-3/4" Digital Round,
1/4" NPT K4517N14160D
- Tamper Resistant Kit..... RRP-95-585
- Wall Mounting Bracket, Gauge Port Adapter,
1/4" NPT RRP-95-590



Ordering Information

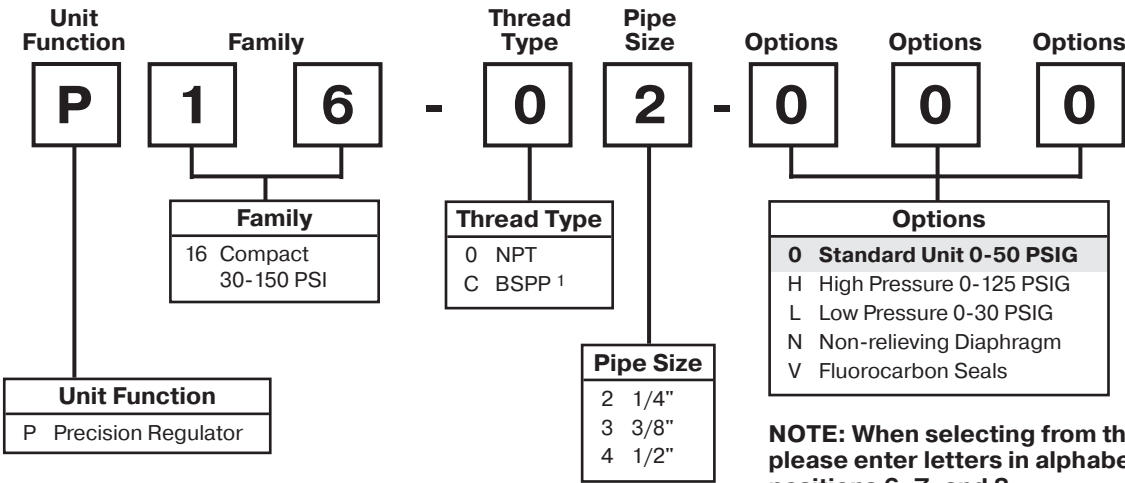
Model Type	Port Size	High Flow 5 to 160 PSIG (0.4 to 11 bar)	Low Pressure 2 to 40 PSIG (0.1 to 3 bar)	Remote 5 to 160 PSIG (0.4 to 11 bar)
Relieving	1-1/2	R41-0B-000	R41-0B-L00	R41-0B-R00
	2	R41-0C-000	R41-0C-L00	R41-0C-R00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Precision Regulator Numbering System (16 Series)

 = "Most Popular"

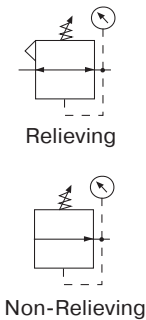


NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8.
For example:

P 1 6 - 0 2 - H 0 0

Precision Regulator

P16 (Modular)

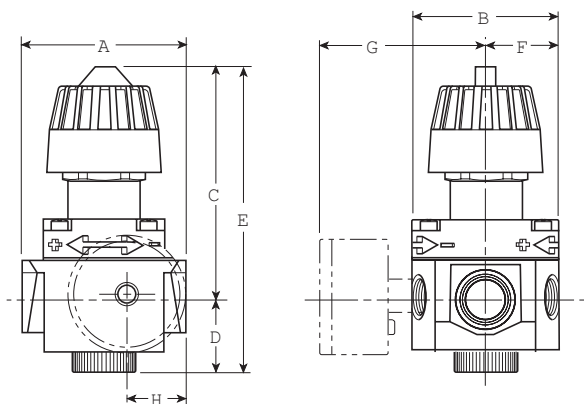
 = "Most Popular"


P16-02-000

The P16 models are general purpose regulators specifically designed for applications that require reliable performance and accurate pressure control.

Features

- *Stable Output* – Aspirator Design Minimizes “Droop” at Higher Flow Levels
- *Accuracy* – High Diaphragm-to-Valve-Area Ratio Combined with Unbalanced Valve Provides High Precision with Minimal Initial Pressure Droop
- *Sensitive* – Responds Quickly to the Slightest Change in Downstream Pressure
- *Easy Maintenance* – May be Disassembled and Serviced without Removal from Air Line
- *Modular Design* – Available in a Modular Configuration to Work with Other Wilkerson Modular Units, Accessories and Options



NOTE: 1.31" Dia. (33,3 mm) hole required for panel nut mounting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit P16-XX-000		2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	—	1.02 (25.9)
With Gauge (order gauge separately) P16-XX-XXX		2.99 (76)	2.59 (66)	3.99 (101.3)	1.20 (30.5)	5.19 (132)	1.29 (33)	2.99 (76)	1.02 (25.9)

Specifications

Flow Capacity*	P16	22.0 SCFM (10.4 dm ³ /s)
Bleed Rate		0.03 SCFM (0.014 dm ³ /s) max.
Gauge Port (2 ea.)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Weight	lb. (kg)	1.66 (0.75)

* Inlet pressure 100 PSIG (6,9 bar). Secondary pressure 45 PSIG (3,1 bar).

Materials of Construction

Body	Zinc
Bonnet	PBT
Diaphragm	Nitrile / Zinc
Panel Nut	Acetal
Seals	Nitrile
Springs	Steel
Valve Assembly	Brass / Nitrile

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

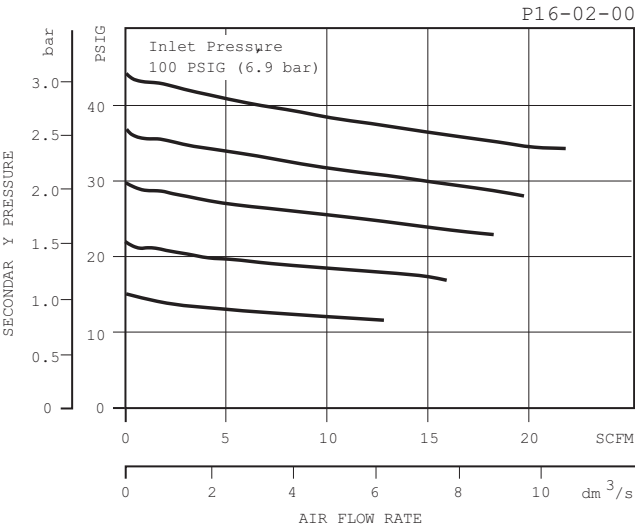
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

Replacement Kits

- Diaphragm Assembly
- Self-relieving, Fluorocarbon..... PRP-95-073
- Self-relieving, Nitrile..... PRP-95-960
- Knob, Adjusting (Series A)
- Used on Units with Plastic Bonnets..... RRP-95-023
- Knob, Adjusting (Prior to Series A)
- Used on Units with Zinc Bonnets RRP-95-007
- Repair Kit, Non-relieving Diaphragm,
- Valve / Valve Spring, O-rings..... PRP-95-053
- Repair Kit, Self-relieving Diaphragm,
- Valve / Valve Spring, O-rings..... PRP-95-004
- Spring, Regulating –
- 0 to 15 PSIG (0 to 1 bar) RRP-95-233
- 0 to 30 PSIG (0 to 2.1 bar) RRP-95-916
- 0 to 50 PSIG (0 to 3.4 bar) RRP-95-222
- 0 to 125 PSIG (0 to 8.6 bar) RRP-95-224
- Valve, Fluorocarbon (Valve Only)PPA-95-067
- Valve Assembly – Valve and Valve Spring PRP-95-959



Accessories

- Gauge, Pressure, 2" Dial Face, 1/4 NPT, CBM
- 0 to 30 PSIG (0 to 2.1 bar)K4520N14030W
- 0 to 60 PSIG (0 to 4 bar).....K4520N14060W
- 0 to 160 PSIG (0 to 11 bar) K4520N14160W
- 0 to 160 PSIG, 1-3/4" Digital Round,
- 1/4" NPT K4517N14160D
- Nut, Panel Nut, Plastic GPA-95-032
- Tamper Resistant Kit, Ring Style..... RPA-95-006
- Wall Mounting Bracket
- Gauge Port Adapter, 1/4 NPT RRP-95-590
- L-Type – Heavy Duty RPA-95-090
- L-Type – StandardGPA-95-012
- L-Type with Plastic Panel Mount NutGPA-95-011

Ordering Information

Model Type	Port Size	Standard Unit 0 to 50 PSIG (0 to 3.4 bar)	High Pressure 0 to 125 PSIG (0 to 8.6 bar)	Low Pressure 0 to 30 PSIG (0 to 2.1 bar)	Fluorocarbon Seals
P16 Relieving	1/4	P16-02-000	P16-02-H00	P16-02-L00	P16-02-V00
	3/8	P16-03-000	P16-03-H00	P16-03-L00	P16-03-V00
	1/2	P16-04-000	P16-04-H00	P16-04-L00	P16-04-V00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

High Precision Regulator

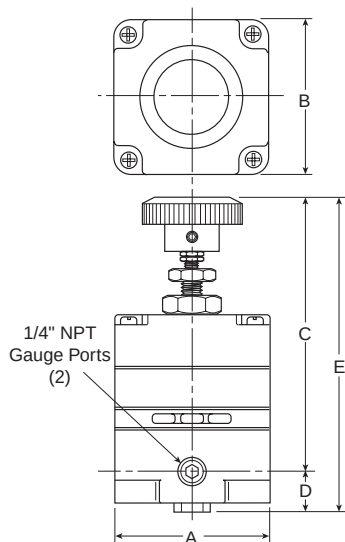
P17

 = "Most Popular"


P17-02-F00

Features

- Accurate Pressure Regulation Controls Output Pressure to Within 0.1% Accuracy
- Multi-stage Regulation for Maximum Control and Stability
- Two Full Flow Gauge Ports
- Super Sensitive Relief. Downstream Pressure Buildup, Down to 0.005 PSIG Above the Set Pressure, is Automatically Vented through Internal Relief Valve
- P17 has High Exhaust Relief Capacity



Dimensions

Models	Inches (mm)	A	B	C	D	E
Standard Unit P17-02-F00		2.10 (53)	2.10 (53)	3.82 (97)	0.43 (11)	4.35 (110)

Specifications

Flow Capacity at 100 PSIG (6.89 bar) Supply, 20 PSIG (1.38 bar) Outlet	14 SCFM (25m ³ /hr)
Constant Bleed Rate (Equals Bleed Rate plus other consumption)	Less than 0.08 SCFM (0.15m ³ /hr)
Effect of Supply Pressure Variation of 25 PSIG (1.7 bar) on outlet:	Less than 0.005 PSIG (0.0003 bar)
Exhaust (Relief) Capacity at 5 PSIG (0.34 bar) above 20 PSIG (1.38 bar) Setpoint	Standard Model 3 SCFM (3.4m ³ /hr) High-Relief Model 11 SCFM (17m ³ /hr)
Gauge Ports (Can be used as additional full flow 1/4" outlet ports)	1/4" NPTF
Operating Pressure Range –	
	PSIG bar
Primary – Maximum	150 10.34
Secondary – Spring Pressure	
40 PSIG Minimum	2 0.14
Maximum	40 2.76
120 PSIG Minimum	2 0.14
Maximum	120 8.27
Operating Temperature Range 0°F* to 150°F (-18°C * to 65°C) Temperatures below (0°C) 32°F require moisture free air.	
Port Threads	1/4"
Repeatability / Sensitivity	0.005 PSIG (0.0003 bar) Inches of Water Column = 1/8"
Total Air Consumption	6 SCFH (0.21m ³ /hr.)
Weight	1.4 lb (0.64 kg)

Materials of Construction

Adjusting Stem & Capsule	Stainless Steel
Body	Zinc
Control Knob	Plastic
Diaphragm(s)	Buna-N
Seals	Buna-N
Springs	Stainless Steel
Valve Poppet	Stainless Steel

The P17 is a high precision, multi-stage pressure regulator. This pressure controller provides the highest level of regulation accuracy and repeatability available and is ideal for applications that call for the utmost in control and maximum stability under variable operating conditions. A stainless steel measuring capsule is used as a sensing element to activate the high gain servo balanced control mechanism in which the main valve is controlled by a pilot valve. This allows for greater accuracy and eliminates many of the problems associated with conventional regulators using range springs and diaphragms.

= "Most Popular"

Regulator Kits

Service Kits

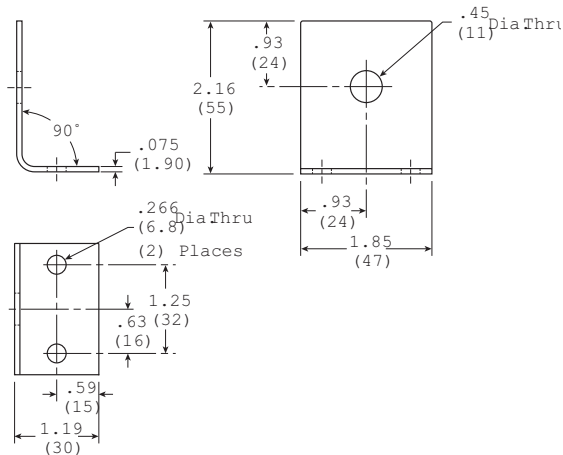
2-40 PSIG	RKR210A*
2-120 PSIG	RKR210C*
2-120 PSIG (High Relieving)	RKR220C*

* Parts in Kit

Accessories

Mounting Bracket Kits

Pipe Mounting	SA200YW57
Right Angle Mounting	446-707-045



Mounting Bracket: 446-707-045



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

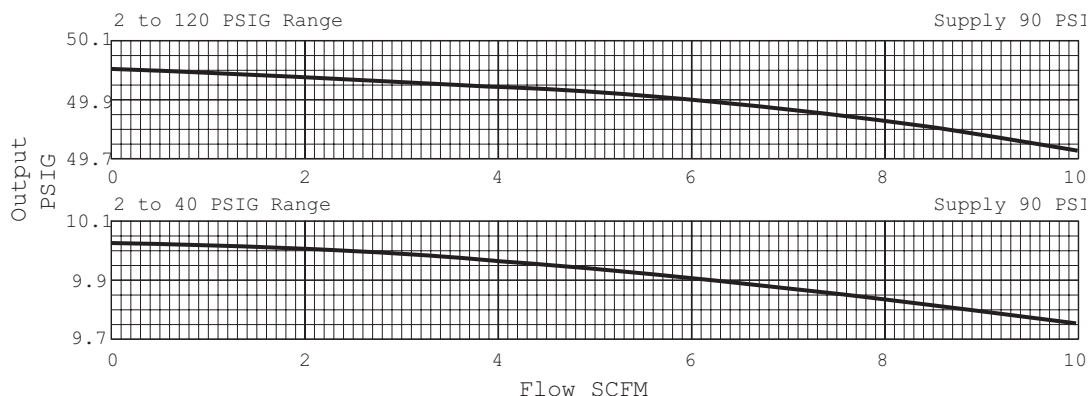
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Applications

The P17 regulators are well suited for any process that requires very precise regulation of air pressure in pipes and vessels. These regulators are often used, but not limited to the following applications:

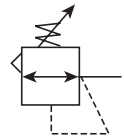
- Air Gauging
- Gas Mixing
- Calibration Standards
- Air Hoists
- Web Tensioning
- Gate Actuators
- Roll Loading
- Valve Operators
- Cylinder Loading



Ordering Information

Relieving		Reduced Pressure Range (PSIG)		
		2 to 40	2 to 120	2 to 120 High Relief
In / Out Ports	1/4"	P17-02-B00	P17-02-F00	P17-02-FH0

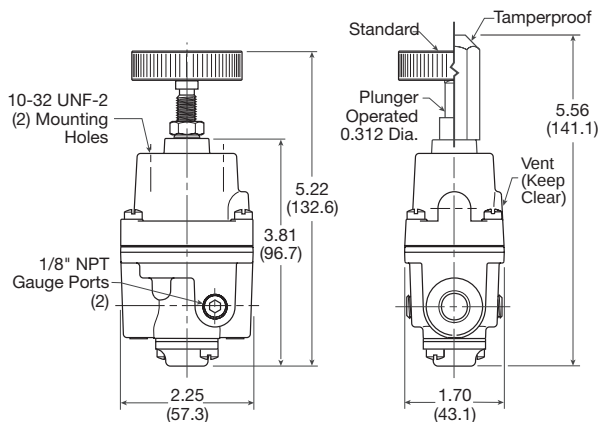
Compact High Precision Regulator WRA302



WRA302

Features

- Control Sensitivity of .250" (.63 cm) Water Column Variation Allows Use in Precision Applications
- A Compensating Diaphragm Lets the Regulator Remain Unaffected by Supply Pressure Changes
- Flow of Up to 40 SCFM with 100 PSIG Supply Allows Use in Applications with High Flow Requirements
- An Aspirator Tube Compensates Downstream Pressure Droop Under Flow Conditions
- A Separate Control Chamber Isolates the Diaphragm From the Main Flow to Eliminate Hunting and Buzzing
- Unit Construction Lets You Service the Regulator Without Removing it From the Line



Inches (mm)

Dimensions

Models	Inches (mm)	A	A1	B	C	D	E	E1
Standard Unit WRA302		2.25 (57.3)	1.70 (43.1)	1.25 (31.8)	3.81 (96.7)	0.25 (6.4)	5.22 (132.6)	5.56 (141.1)

Specifications

Supply Pressure 250 PSIG, (17.0 bar), (1700 kPa) Maximum

Flow Capacity –

40 SCFM (68 m³/HR) @ 100 PSIG, (7.0 bar), (700 kPa)
Supply and 20 PSIG, (1.5 bar), (150 kPa) Setpoint

Exhaust Capacity –

2.0 SCFM (3.4 m³/HR) where downstream pressure is 5 PSIG, (.35 bar), (35 kPa) above 20 PSIG, (1.5 bar), (150 kPa) Setpoint

Supply Pressure Effect –

Less than 0.2 PSIG, (.014 bar), (.14 kPa) for 100 PSIG, (7.0 bar), (700 kPa) change in Supply Pressure

Sensitivity .250" (.010 PSIG) (.64 cm) Water Column

Ambient Temperature -40°F to +200°F, (-40°C to 93°C)

Hazardous Locations –

Acceptable for use in Zones 1 and 2 for Gas Atmosphere:
Groups IIA and IIB and Zones 21 and 22 for Dust Atmospheres

Materials of Construction

Body and Housing	Aluminum
Diaphragms	Nitrile on Dacron
Trim	Brass

The WRA302 Regulator is designed for applications that require high capacity and accurate process control in a small package. A poppet valve which is balanced by utilizing a convoluted diaphragm, insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

= "Most Popular"

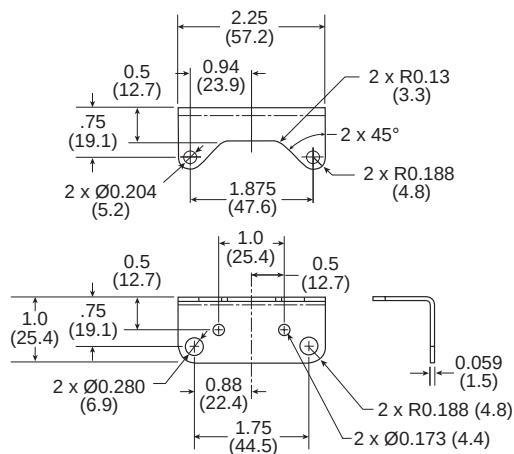
WRA302 Kits and Accessories

Service Kits

- 1/2 to 30, 1 to 60, & 2 to 100 PSIG,
Nitrile, Standard.....PS16116-13
- 1/2 to 30, 1 to 60, & 2 to 100 PSIG,
Nitrile, Non-relievingPS16116-14

Tamper Resistant Kit.....PS12163

Mounting Bracket Kit.....PS21667-1



⚠ WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

WRA302	4	2	
---------------	----------	----------	--

Springs	
3	0.5 to 30 PSIG
4	1 to 60 PSIG
5	2 to 100 PSIG

Pipe Size
2 1/4" NPT

Options	
Blank	No Options
H	BSP
N	Non-Relieving

Note: Other Spring Ranges, Port Sizes, and Options Available.
Please Consult Factory

Ordering Information

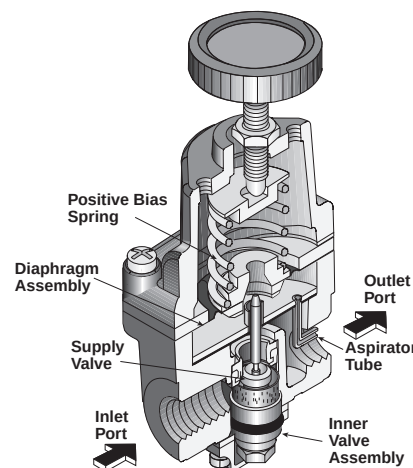
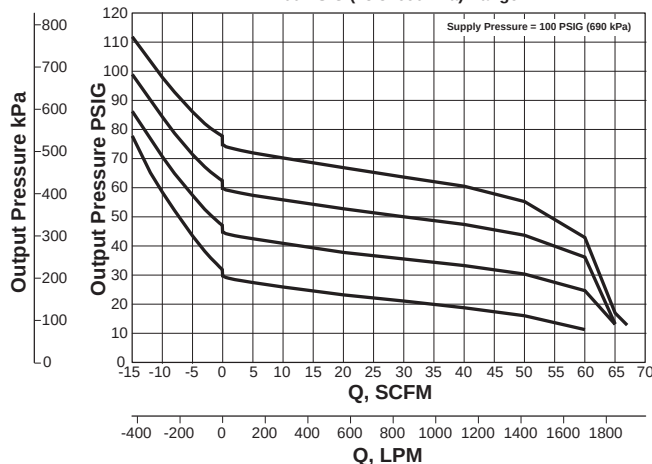
Relieving		Reduced Pressure Range (PSIG)		
		0 to 30	0 to 60	0 to 100
In / Out Ports	1/4 Inch	WRA30232	WRA30242	WRA30252

Technical Information

Flow Characteristics

Model WRA302

2-100 PSIG (13.8-690 kPa) Range



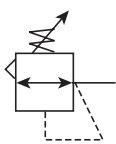
Operating Principles

The WRA302 Regulator uses the force balance principal to control the movement of the valve assembly which in turn controls the output pressure. When the regulator is adjusted for a specific set point, the downward force of the Positive Bias Spring causes the Diaphragm Assembly to move downward. The Supply Valve opens and allows air to pass to the Outlet Port. As the set point is reached, the downward force exerted by the Positive Bias spring is balanced by the upward force of the downstream pressure acting on the bottom of the Diaphragm Assembly. The resultant force moves the supply Valve upward to reduce the flow of air to the Outlet Port.

Outlet pressure is maintained as a result of balance between forces acting on the top and bottom of the Diaphragm Assembly.

Standard High Precision Regulator

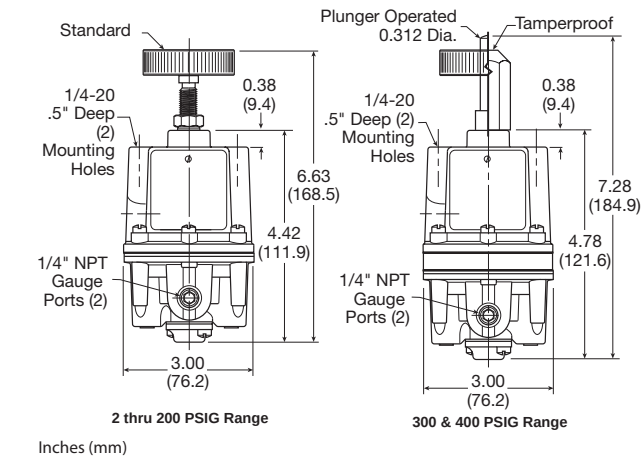
WRA102



WRA102

Features

- Control Sensitivity of .125" (.32 cm) Water Column Allows Use in Precision Processes
- Pressure Balanced Supply Valve Prevents Supply Pressure Changes From Affecting the Setpoint
- Optional Check Valve Permits Dumping of Downstream Pressure When Supply is Opened to Atmosphere
- Separate Control Chamber Isolates the Diaphragm From the Main Flow to Eliminate Hunting and Buzzing
- An Aspirator Tube Compensates Downstream Pressure Droop Under Flow Conditions



Dimensions

Models	Inches (mm)	A	B	B1	C	C1	D	E	E1
Standard Unit WRA102		3.00 (76.2)	2.22 (56.5)	2.13 (53.9)	4.42 (111.9)	4.78 (121.6)	0.38 (9.4)	6.63 (168.5)	7.28 (184.9)

Specifications

Supply Pressure	500 PSIG, (35.0 bar), (3500 kPa) Maximum
Flow Capacity –	40 SCFM (68 m ³ /HR) @ 100 PSIG, (7.0 bar), (700 kPa) Supply and 20 PSIG, (1.5 bar), (150 kPa) Setpoint
Exhaust Capacity –	5.5 SCFM (9.35 m ³ /HR) where Downstream Pressure is 5 PSIG, (.35 bar), (35 kPa) above 20 PSIG, (1.5 bar), (150 kPa) Setpoint
Supply Pressure Effect –	Less than 0.1 PSIG, (.007 bar), (.7 kPa) for 100 PSIG, (7.0 bar), (700 kPa) change in Supply Pressure
Sensitivity	.125" (.005 PSIG) (.32 cm) Water Column
Ambient Temperature	-40°F to +200°F, (-40°C to 93°C)
Hazardous Locations –	Acceptable for use in Zones 1 and 2 for Gas Atmosphere: Groups IIA and IIB and Zones 21 and 22 for Dust Atmospheres

Materials of Construction

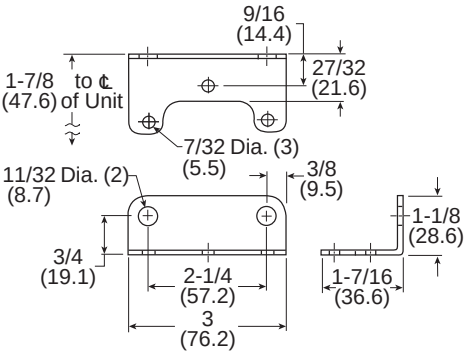
Body and Housing	Aluminum
Diaphragms	Buna N on Dacron (Standard Unit Only)
Trim	Brass, Zinc Plated Steel

The WRA102 Regulator is designed for applications that require high capacity and accurate process control. A poppet valve which is balanced by utilizing a rolling diaphragm, insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

= “Most Popular”

WRA102 Kits & Accessories

Mounting Bracket Kit –
Zinc Plated Steel..... PS09921



Service Kits
0 to 200 PSIG, RelievingPS12125-1
0 to 200 PSIG, Non--relievingPS12125-4
Tamper Resistant Kit PS12165

⚠

WARNING
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

WRA102

6

2

Springs

3 0.5 to 30 PSIG
4 1 to 60 PSIG
6 2 to 150 PSIG

Pipe Size

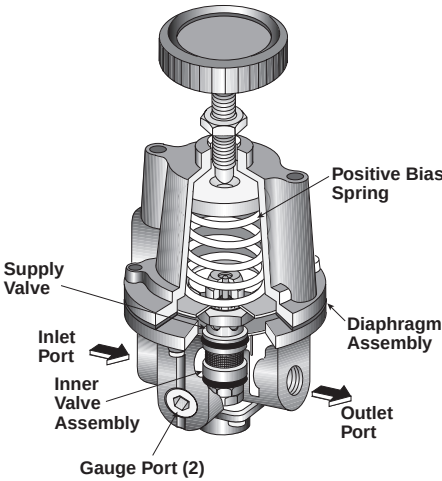
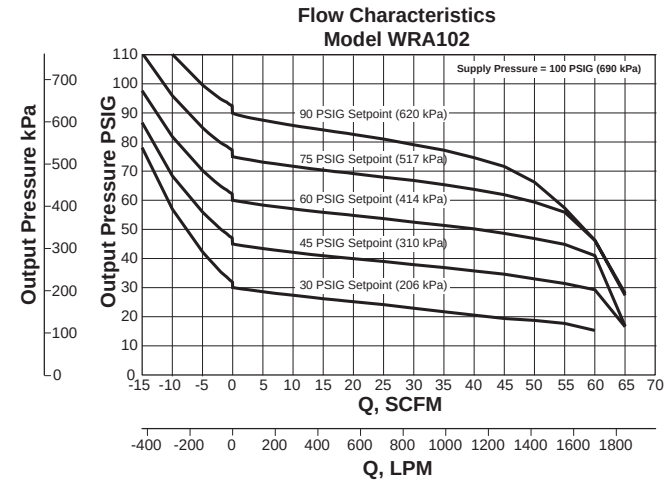
2 1/4" NPT

Options

Blank No Options
H BSPP
N Non-Relieving

Note: Other Spring Ranges, Port Sizes, and Options Available.
Please Consult Factory

Technical Information



Operating Principles

The WRA102 Series regulator use the force balance principal to control the movement of the Valve Assembly that controls the output pressure. When the regulator is adjusted for a specific set point, the downward force of the Positive Bias Spring moves the Diaphragm Assembly downward. The Supply Valve opens and allows air to pass to the Outlet Port. As the set point is reached, the downward force exerted by the Positive Bias Spring is balanced by the force of the downstream pressure that acts on the Diaphragm Assembly. The resultant force moves the Supply Valve upward to reduce the flow of air to the Outlet Port.

Outlet pressure is maintained as a result of balance between forces acting on the top and bottom of the Diaphragm Assembly.

Ordering Information

Relieving		Reduced Pressure Range (PSIG)		
		0 to 30	0 to 60	0 to 150
In / Out Ports	1/4 Inch	WRA10232	WRA10242	WRA10262

Compact High Precision Relief Valve

WRA102BP



WRA102BP

Features

- Control Sensitivity of .125" (.32 cm) Water Column Allows Use in Precision Applications
- A Separate Control Chamber and Aspirator Tube Isolate the Diaphragm From the Main Flow to Eliminate Hunting and Buzzing
- Unit Construction Lets You Service the WRA102BP Without Removing it From the Line
- Mounting Bracket is Available

Specifications

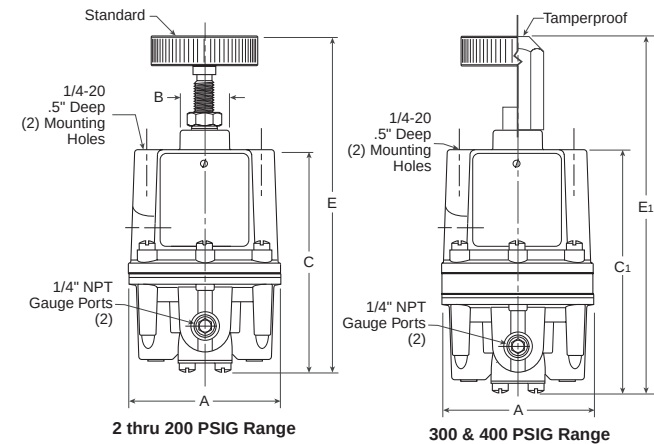
Set Point Range	System Pressure (Maximum)
2-200 PSIG (0.15-14 bar) (15-1400 kPa)	300 PSIG (21.0 bar) (2100 kPa)
300-400 PSIG (21-28 bar) (2100-2800 kPa)	500 PSIG (35.0 bar) (3500 kPa)
Flow Capacity (SCFM) – 40 (68 m³/HR) @ 100 PSIG, (7.0 bar), (700 kPa) System Pressure	
Sensitivity	.125" (.005 PSIG) (.32 cm) Water Column
Ambient Temperature	-40°F to +200°F, (-40°C to +93°C)

Materials of Construction

Body and Housing	Aluminum
Trim	Zinc Plated Steel, Brass
Nozzle	Nitrile on Dacron

The WRA102BP is a high capacity relief valve that relieves excess pressure in a pneumatic system.

The WRA102BP provides greater accuracy than standard relief valves over a narrow pressure range. The WRA102BP is an excellent choice for a wide range of precision applications.



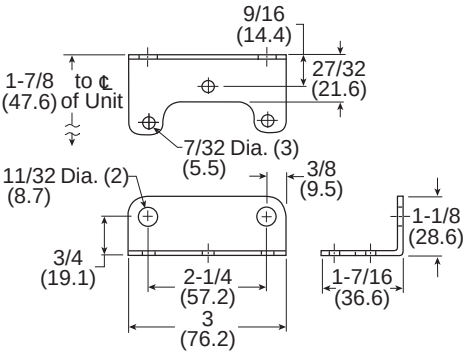
Dimensions

Models	Inches (mm)	A	B	C	C1	E	E1
Standard Unit WRA102BP		3.00 (76.2)	0.97 (24.6)	4.19 (106.4)	4.56 (115.9)	6.31 (160.3)	6.75 (171.4)

= "Most Popular"

WRA102BP Kits & Accessories

Mounting Bracket Kit –
Zinc Plated Steel..... PS09921



Service Kits
0 to 200 PSIG, Standard..... PS12127-1
Tamper Resistant Kit..... PS12165

WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

WRA102

6

2

BP

Springs

3 0.5 to 30 PSIG

4 1 to 60 PSIG

6 2 to 150 PSIG

Pipe Size

2 1/4" NPT

Options

BP Back Pressure

Options

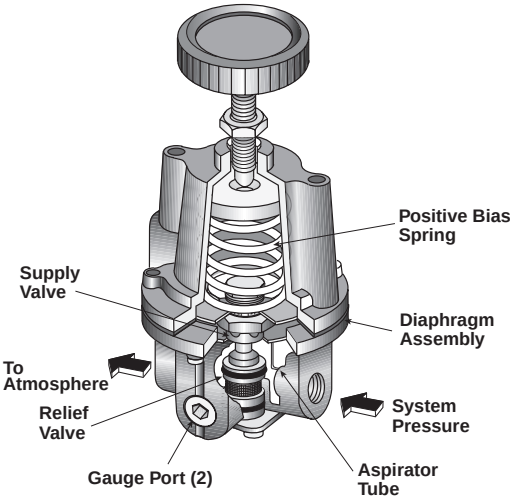
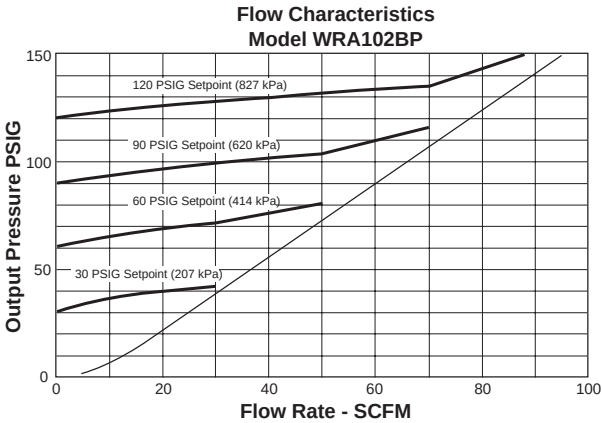
Blank No Options

H BSPP

N Non-Relieving

Note: Other Spring Ranges, Port Sizes, and Options Available. Please Consult Factory

Technical Information



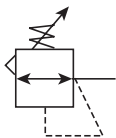
Operating Principles
The WRA102BP Regulator uses the force balance principle to open the Relief Valve and vent system pressure when the set point is exceeded. Downstream pressure is transmitted through the Aspirator Tube to the bottom of the Diaphragm Assembly. When you adjust the range screw for a specific set point, the Positive Bias Spring compresses and exerts a force on the top of the Diaphragm Assembly. As long as the pressure acting on the bottom of the Diaphragm Assembly produces a force less than the spring force acting on the top of the Diaphragm Assembly, the Relief Valve remains closed. When system pressure increases, the force on the bottom of the Diaphragm Assembly increases until it reaches the set point. When system pressure increases beyond the set point, the assembly moves upward, lifting the Relief Valve from its seat and vents the downstream air. If downstream pressure decreases below the set point, the assembly moves downward closing the Relief Valve.

Ordering Information

Relieving		Reduced Pressure Range (PSIG)		
		0 to 30	0 to 60	0 to 150
In / Out Ports	1/4 Inch	WRA10232BP	WRA10242BP	WRA10262BP

High Precision Vacuum Regulator

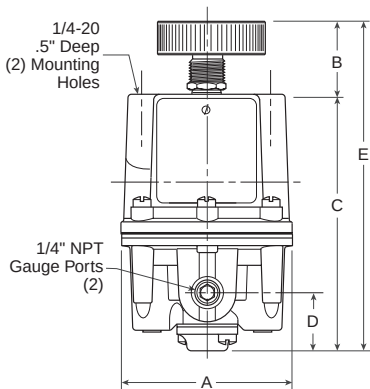
WRA171



WRA171

Features

- Control Sensitivity of .125" (.32 cm) Water Column Allows Use in Precision Applications
- Balanced Supply Valve Minimizes Effects of Vacuum Variation
- Aspirator Tube Compensates for Downstream Pressure Droop Under Flow Conditions
- Separate Control Chamber Isolates the Diaphragm From the Main Flow to Eliminate Hunting and Buzzing
- Construction Allows Servicing Without Removing From the Line



Dimensions

Models	Inches (mm)	A	B	C	D	E
Standard Unit WRA171		3.00 (76.2)	1.13 (28.7)	4.83 (122.6)	1.00 (25.4)	5.96 (151.3)

Specifications

Vacuum Supply (Max)	29.92 Hg (760 torr)
Flow Capacity	3 SCFM @ 650 torr Supply, 250 torr Setpoint
Sensitivity	.125" (.005 PSIG) (.32 cm) Water Column
Ambient Temperature	-40°F to +200°F, (-40°C to +93°C)
Vacuum Supply Effect –	Less than 1 torr for 100 torr (.04 Hg for 3.94 Hg) change in Vacuum Supply

Materials of Construction

Body and Housing	Aluminum
Trim	Zinc Plated Steel, Brass
Elastomers	Nitrile

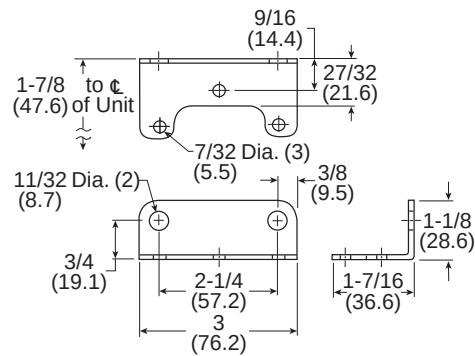
The WRA171 is a high accuracy vacuum regulator that provides uniform vacuum regulation independent of vacuum supply changes and flow demand.

This unit has a diaphragm assembly with three springs to provide a more balanced loading of the diaphragm.

= “Most Popular”

WRA171 Kits and Accessories

Mounting Bracket PS09921



Service Kits

(Includes Diaphragm Assy, Valve Assy, Seat Assy & Gasket) –
0-30" Hg, Nitrile, Nonrelieving..... PS20966-9
Tamper Resistant Kit.....PS20967-1

⚠

WARNING
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

WRA171

3

2

N

N

K

N

Springs

3 0 to 30 Hg

Thread Type

N NPT

Options

K Knob Assembly

Pipe Size

2 1/4" NPT

Options

N Nitrile

Options

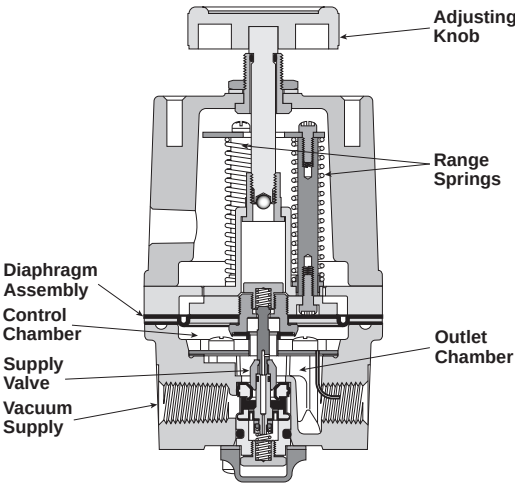
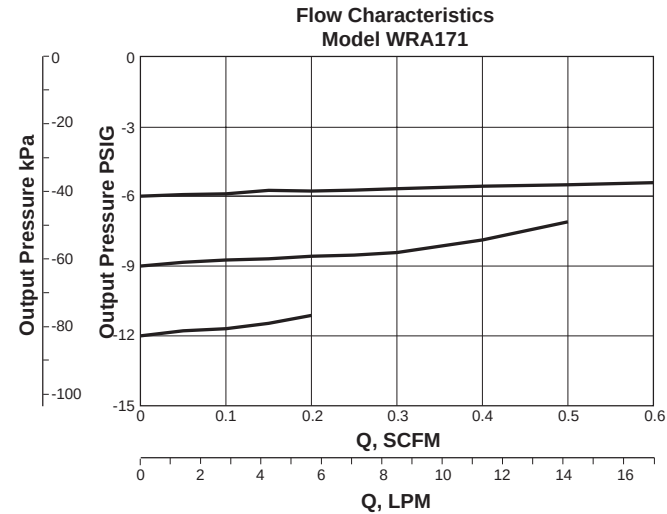
N Non-Relieving

Note: Other Spring Ranges, Port Sizes, and Options Available.
Please Consult Factory

Ordering Information

Relieving		Reduced Pressure Range (PSIG)
		0 to 30
In / Out Ports	1/4 Inch	WRA17132NNKN

Technical Information

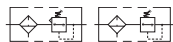


Operating Principles

The Model WRA171 Series vacuum regulator uses the force balance principle to control the movement of the Valve Assembly that controls output vacuum.

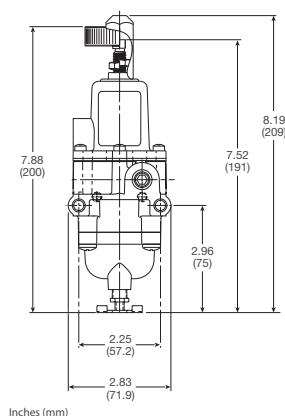
When the regulator is adjusted for a specific set point, the upward force of the Range Springs moves the Diaphragm Assembly upward. The Supply Valve opens and allows air to pass to the inlet port. As the set point is reached, the upward force exerted by the Range Springs is balanced by the force of the vacuum that pulls downward on the Diaphragm Assembly. The resultant force moves the Supply Valve downward to reduce the flow of air to the inlet port. Outlet vacuum is maintained as a result of balance between forces acting on the top and bottom of the Diaphragm Assembly.

Precision Filter / Regulator WEA632

 = "Most Popular"


Features

- The No-brass Construction is Well Suited to Harsh Environments
- Internal and External Epoxy Finish for Superior Corrosion Resistance
- Non-Bleed Design to Reduce Consumption.
- Integral Relief Valve
- A Gauge Port Provides Convenient Pressure Gauge Mounting
- The Standard 5-Micron Filter Minimizes Internal Contamination
- The Filter Dripwell Contains a Drain Plug to Easily Drain Trapped Liquids
- Standard Tapped Exhaust
- Soft Relief Seat Minimizes Air Loss.



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit WEA632		2.83 (71.9)	2.25 (57.2)	7.88 (200)	2.96 (75)	7.52 (191)	8.19 (209)

Specifications

Supply Pressure 250 PSIG, (17 bar), (1700 kPa) Maximum

Flow Capacity (SCFM) –

25 (42.5 m³/HR) @ 100 psig, (7 bar), (700 kPa) supply and 20 PSIG, (1.5 bar), (150 kPa) setpoint

Exhaust Capacity (SCFM) –

0.8 (1.36 m³/HR) where downstream pressure is 5 PSIG, (.35 bar), (35 kPa) above 20 PSIG, (1.5 bar), (150 kPa) setpoint.
(0.8 SCFM for 120 # unit)

Maximum Supply Pressure 250 PSIG, (14 bar), (1400 kPa)

Consumption Undetectable

Supply Pressure Effect –

Less than 1.25 PSIG, (.09 bar), (9 kPa) change for 100 psig, (7.0 bar), (700 kPa) change in supply pressure (1.90 psig for 120 # unit)

Sensitivity 1.0" (.036 PSIG) (2.54 cm) Water Column

Temperature Range -40^o F to + 160^o F, (-40^o C to + 71^o C)

Materials of Construction

Body and Housing Epoxy Coated Aluminum

Trim Stainless Steel, Nickel Plated Steel

Elastomers Nitrile

WEA632 Kits & Accessories

- Service Kits
- 1 to 60, 2 to 120 PSIGPS19968-NR
- Tamper Resistant Kit PS12165

 **WARNING**

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

WEA632

5

2

N

S

Springs

4 1 to 60 PSIG

5 2 to 120 PSIG

Pipe Size

2 1/4" NPT

Thread Type

N NPT

U BSPP

Adjustment

S Screw (Std.)

K Knob

T Tamperproof

Options

Blank

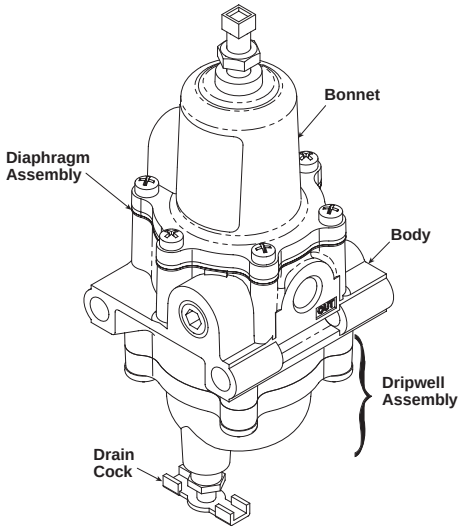
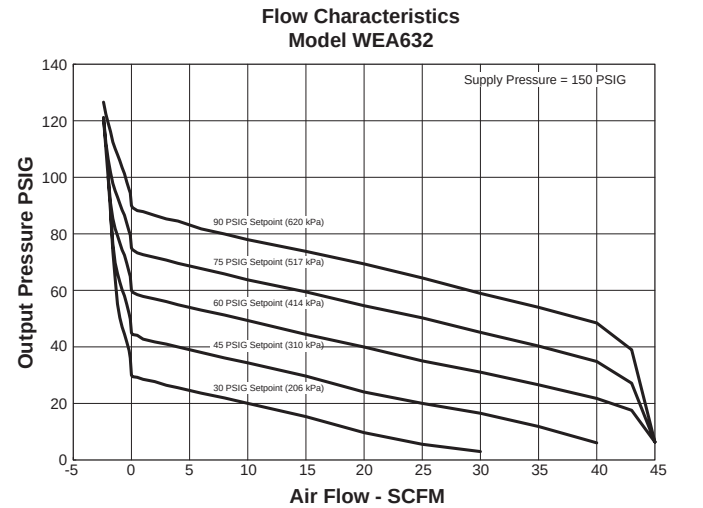
None

Note: Other Spring Ranges, Port Sizes, and Options Available.
Please Consult Factory

Ordering Information

Relieving		Reduced Pressure Range (PSIG)	
		0 to 60	2 to 120
In / Out Ports	1/4 Inch	WEA63242NS	WEA63252NS

Technical Information



Operating Principles

When you turn the Adjustment Screw to a specific setpoint, the Spring exerts a downward force against the top of the Diaphragm Assembly. This downward force opens the Supply Valve. Output pressure flows through the Outlet Port and the passage to the Control Chamber where it creates an upward force on the bottom of the Diaphragm Assembly.

When the setpoint is reached, the force of the Spring that acts on the top of the Diaphragm Assembly balances with the force of output pressure that acts on the bottom of the Diaphragm Assembly and closes the Supply Valve.

When the output pressure increases above the setpoint, the Diaphragm Assembly moves upward to close the Supply Valve and open the Exhaust Valve. Output pressure flows through the Exhaust Valve and out of the Exhaust Vent on the side of the unit until it reaches the setpoint.

Precision Pneumatic Input Signal Amplifier WBA208



Features

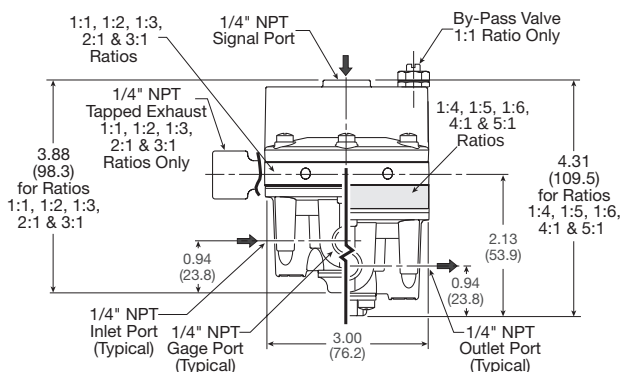
- The WBA208 Uses a Pneumatic Input Signal to Accurately Control Output Pressure Based on a Predetermined Ratio
- A Balanced Supply Valve Minimizes the Effects of Supply Pressure Variation
- An Aspirator Tube Compensates Downstream Pressure Droop Under Flowing Conditions
- A Separate Control Chamber Isolates the Diaphragm From the Main Flow to Eliminate Hunting and Buzzing
- Unit Construction Allows Servicing Without Removal
- Mounting Bracket Available

Specifications

Ratio	Signal:Output		
	1:1	1:2	1:3
Maximum Output Pressure, PSIG (bar)	150 (10.0)	150 (10.0)	150 (10.0)
Maximum Supply Pressure, PSIG (bar)	250 (17.0)	250 (17.0)	250 (17.0)
Flow Capacity SCFM, (m³/HR) 100 PSIG, (7.0 bar) Supply, 20 PSIG, (1.5 bar) Output.	45 (76.5)	45 (76.5)	45 (76.5)
Exhaust Capacity SCFM, (m³/HR) Downstream Pressure 5 PSIG, (.35 bar) Above Output Pressure Set Point of 20 PSIG, (1.5 bar).	11 (18.7)	11 (18.7)	11 (18.7)
Sensitivity (Water Column)	.250" (.64 cm)	.500" (1.27 cm)	.750" (1.9 cm)
Ratio Accuracy % of 100 PSIG, (7.0 bar) Output Span	1.0	1.0	1.0
% of Output Span with (7.0 bar) Input Span	—	—	—
Supply Pressure Effect, PSIG (bar) for change of 100 PSIG, (7.0 bar).	0.10 (.007)	0.20 (.014)	0.30 (.021)
Ambient Temperature, °F (°C)	-40 to +200 (-40 to +93)		

Materials of Construction

Body and Housing	Aluminum
Diaphragm	Nitrile on Dacron Fabric
Trim	Zinc Plated Steel, Brass



Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁
Standard Unit WBA208		3.00 (76.2)	.94 (23.8)	2.13 (53.9)	.94 (23.8)	.13 (3.2)	3.88 (98.3)	4.31 (109.5)

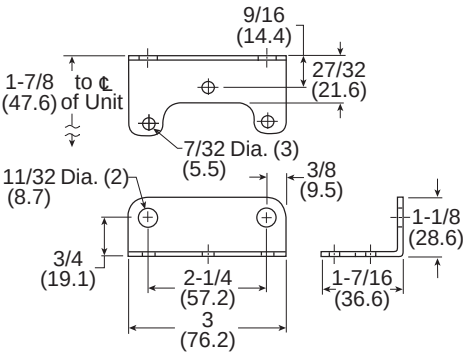
= "Most Popular"

WBA208 Kits and Accessories

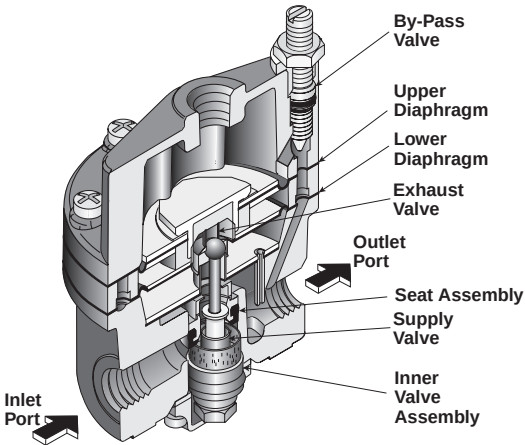
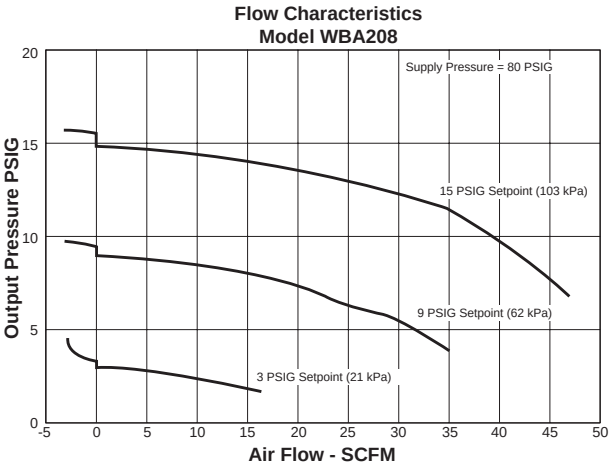
Mounting Bracket PS09921

Service Kits

- 1:1 RatioPS19513-11
- 1:1 Ratio w/ By-Pass Valve PS19513-11I
- 1:2 Ratio PS19513-12
- 1:3 Ratio PS19513-13



Technical Information



Operating Principles

The WBA208 Input Signal Amplifier is a pneumatic device capable of high flow and exhaust capacity. This device uses a force balance system to control the movement of the supply and exhaust valves.

At set point, the force due to signal pressure that acts on the top of the Upper Diaphragm balances with the force due to output pressure acting on the bottom of the Lower Diaphragm.

WBA208		1	2	
--------	--	---	---	--

Pilot Ratio	
1	1:1
2	1:2
3	1:3

Pipe Size	
2	1/4" NPT

Options	
Blank	No Options
E	Tapped Exhaust
H	BSPP
I	By-Pass Valve

Note: Other Spring Ranges, Port Sizes, and Options Available.
Please Consult Factory

Ordering Information

Relieving		Pilot Ratio		
		1:1	1:2	1:3
In / Out Ports	1/4 Inch	WBA20812	WBA20822	WBA20832

Precision Pneumatic Input Signal Amplifier WBA45

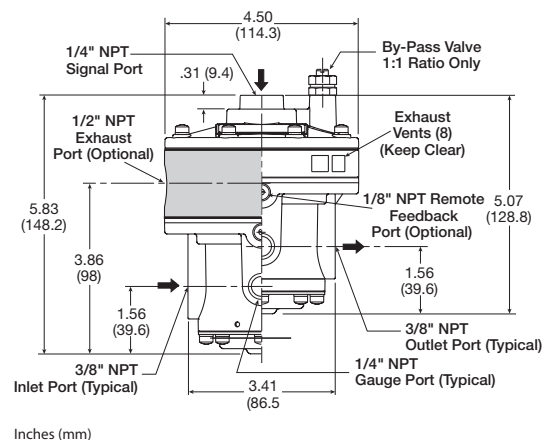


Features

- Five Signal to Output Ratios Meet Most Control Element Requirements
- Control Sensitivity of Water Column Allows Use in Precision Applications
- Large Supply and Exhaust Valves Provide High Forward and Exhaust Flows
- Soft Supply and Exhaust Valve Seats Minimize Air Consumption
- A Balanced Supply Valve Minimizes the Effect of Supply Pressure Variation
- An Aspirator Tube Compensates Downstream Pressure Droop Under Flow Conditions
- A Separate Control Chamber Isolates the Diaphragm From the Main Flow to Eliminate Hunting and Buzzing
- Optional Remote Feedback Port Minimizes Pressure Drop at Final Control Element Under Flow Conditions
- Unit Construction Lets You Service the WBA45 Without Removing it From the Line

Specifications

Ratio	Signal:Output		
	1:1	1:2	1:3
Maximum Output Pressure, PSIG (bar)	150 (10.0)	150 (10.0)	150 (10.0)
Maximum Supply Pressure, PSIG (bar)	250 (17.0)	250 (17.0)	250 (17.0)
Flow Capacity SCFM, (m³/HR) 100 PSIG, (7.0 bar) Supply, 20 PSIG, (1.5 bar) Output	150 (255)	150 (255)	150 (255)
Exhaust Capacity SCFM, (m³/HR) Downstream Pressure 5 PSIG, (.35 bar) Above 20 PSIG, (1.5 bar) Setpoint	40 (62.5)	40 (62.5)	40 (62.5)
Sensitivity (Water Column)	1.0" (2.54 cm)	2.0" (5.08 cm)	3.0" (7.62 cm)
Ratio Accuracy – % of 100 PSIG, (7.0 bar) Output Span	3.0	3.0	3.0
% of Output Span with 100 PSIG (7.0 bar) Input Span	—	—	—
Supply Pressure Effect, PSIG (bar) for change of 100 PSIG, [7.0 bar], (700 kPa).	0.10 (.007)	0.20 (.014)	0.30 (.021)
Ambient Temperature, °F (°C)	-40 to +200 (-40 to +93)		
Hazardous Locations	Acceptable for use in Zones 1 and 2 for gas atmosphere; Groups IIA and IIB and Zones 21 and 22 for dust atmospheres.		



Dimensions

Models	Inches (mm)	A	B	C	C ₁	D	E	E ₁
Standard Unit WBA45		4.50 (114.3)	3.41 (86.5)	3.86 (98)	1.56 (39.6)	.31 (7.9)	5.07 (128.8)	5.83 (148.2)

= “Most Popular”

WBA45 Kits and Accessories

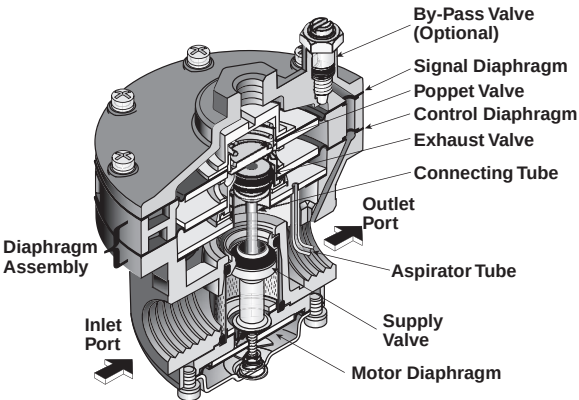
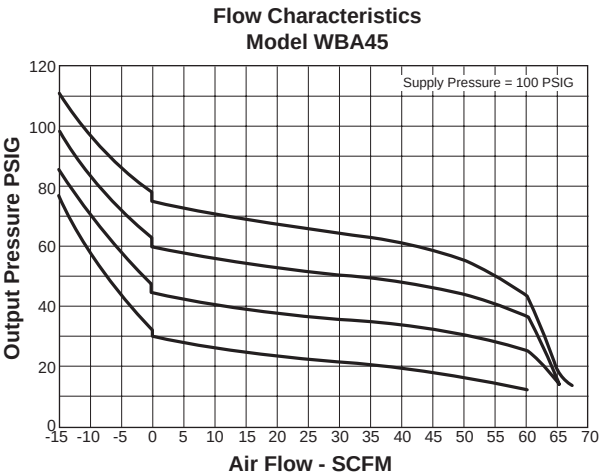
Service Kits

1:1 Ratio	PS19549-1
1:1 Ratio w/ Tapped Exhaust	PS19549-1E
1:3 Ratio	PS19549-3
1:2 Ratio	PS19549-2
1:1 w/ Tapped Exhaust, I Option	PS19549-20E

Materials of Construction

Body and Housing	Aluminum
Diaphragm	Nitrile on Dacron Fabric
Trim	Zinc Plated Steel, Brass

Technical Information



Operating Principles

When signal pressure on the top of the Signal Diaphragm creates a downward force on the Diaphragm Assembly, the Supply Valve opens. Output pressure flows through the Outlet Port and the Aspirator Tube to the Control Chamber to create an upward force on the bottom of the Control Diaphragm. When the setpoint is reached, the force of the signal pressure that acts on the top of the Signal Diaphragm balances with the force of the output pressure that acts on the bottom of the Control Diaphragm to close the Supply Valve.

When the output pressure increases above the signal pressure, the Diaphragm Assembly moves upward to close the Supply Valve and open the Exhaust Valve. Because the Poppet Valve is closed, pressure flows down the Connecting Tube to the bottom of the Motor Diaphragm. This pressure keeps the Supply Valve tightly closed while in the exhaust mode. The Poppet Valve opens and excess output pressure exhausts through the vent in the side of the unit until it reaches the setpoint.

WBA45

1

4

A

Pilot Ratio

1 1:1

2 1:2

3 1:3

Pipe Size

4 1/2" NPT

6 3/4" NPT

Type

A 45 Series

Options

Blank

No Options

E Tapped Exhaust

H BSPP

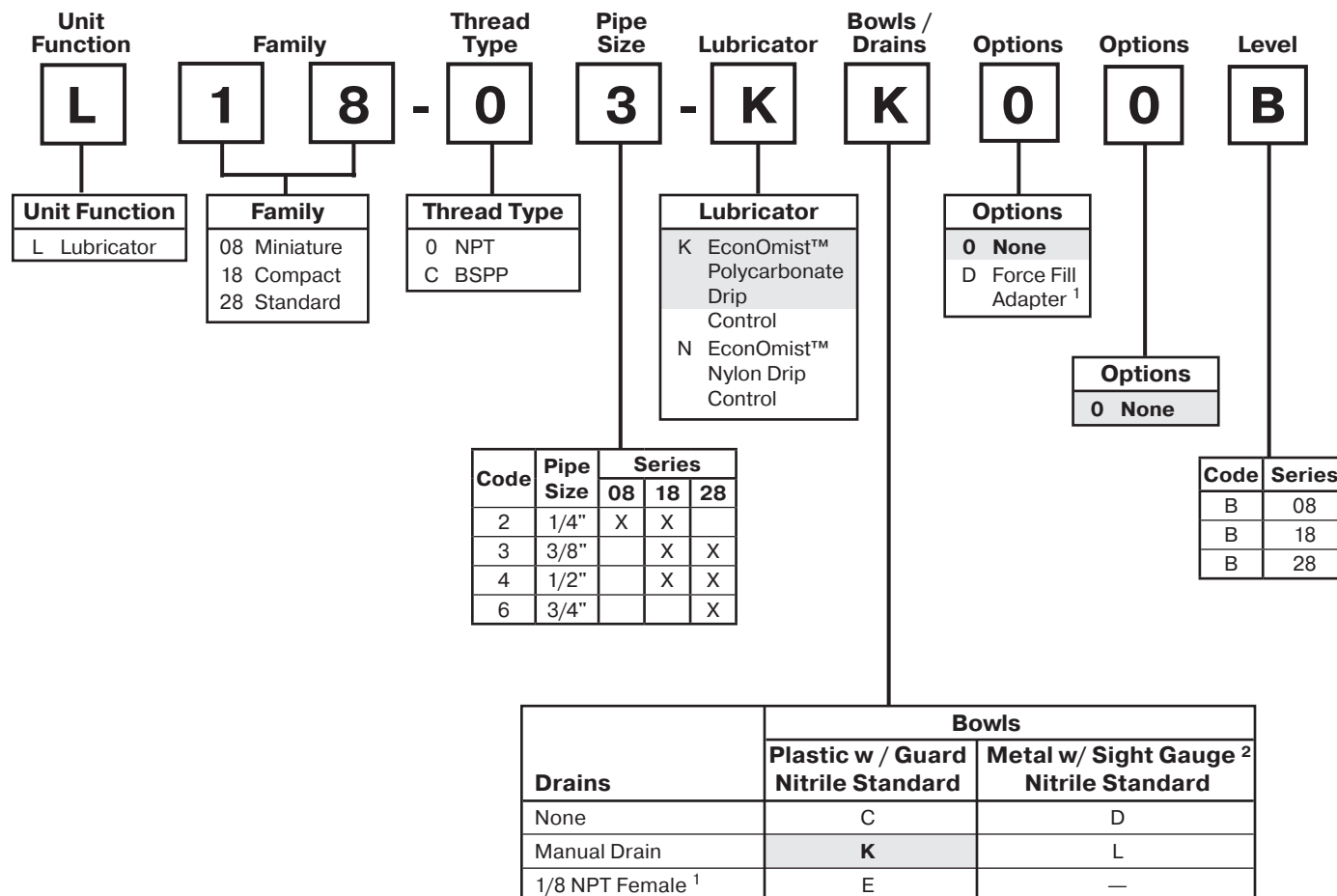
I By-Pass Valve

Note: Other Spring Ranges, Port Sizes, and Options Available. Please Consult Factory

Ordering Information

Relieving		Pilot Ratio		
		1:1	1:2	1:3
In / Out Ports	1/2 Inch	WBA4514A	WBA4524A	WBA4534A
	3/4 Inch	WBA4516A	WBA4526A	WBA4536A

Lubricator Numbering System

 = "Most Popular"
¹ Not available on L08² No sight gauge on L08

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

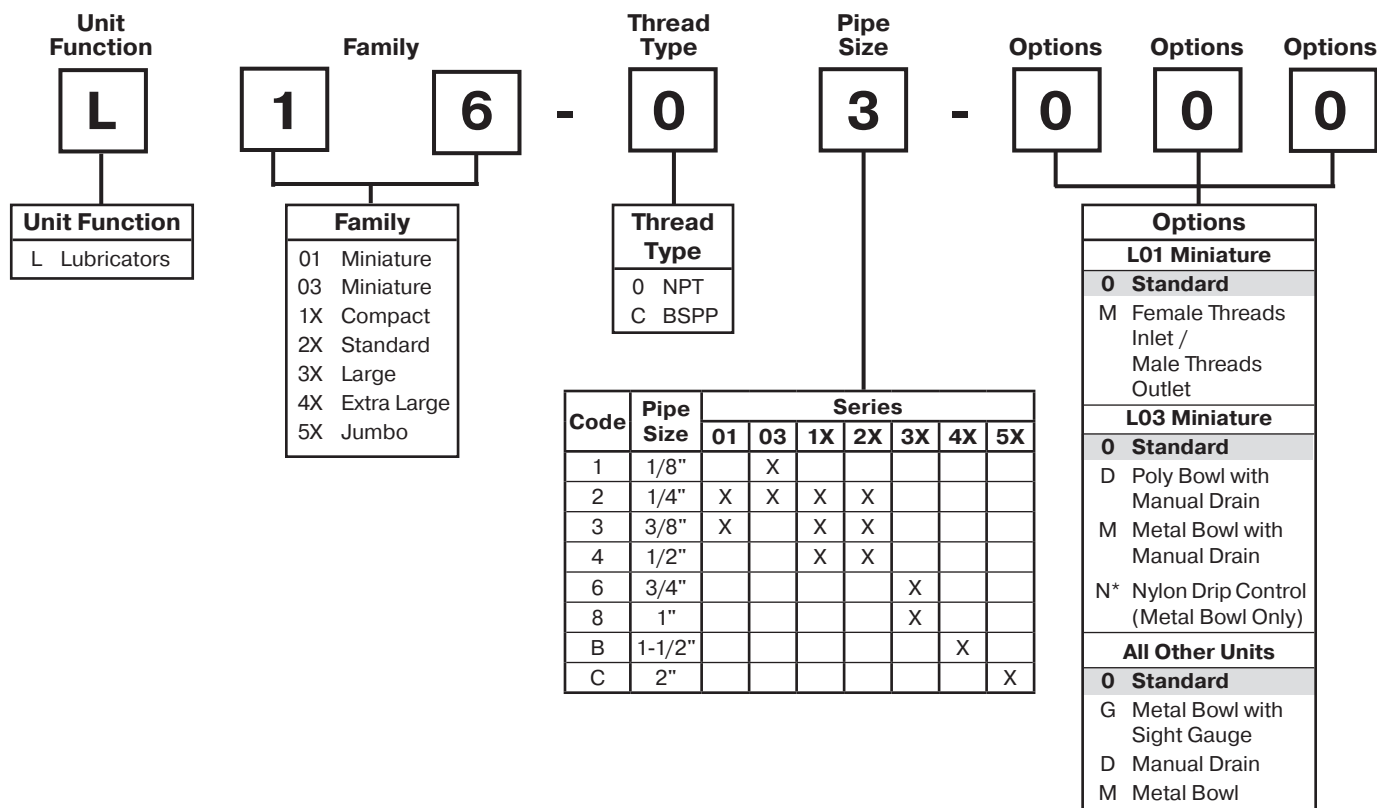
L 1 8 - 0 3 - K K 0 0 B

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Lubricator Numbering System

 = "Most Popular"


* Available only with Metal Bowl "M".

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8. For example:

L16-03-0 0 0

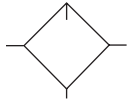
Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Lubricator

L01 EconOmist™

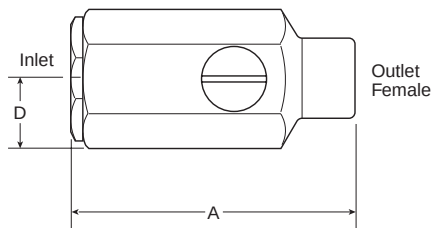
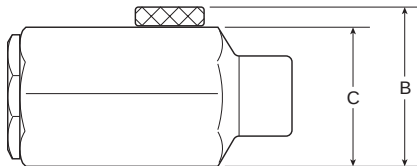


L01-02-000

In-Line Lubricator

In-Line Lubricators assure proper lubrication for small pneumatic hand tools. These in-line lubricators put the oil source right at the tool. Oil capacity is 1/4 oz. (1 ml) enough to last through an average 8-hour shift. This lubricator requires cyclical or intermittent airflow for proper operation, and consequently works best when installed at the tool inlet or on a short hose near the tool.

The L01 cannot be filled under pressure.



Dimensions

Models	Pipe Size Inlet	Pipe Size Outlet	Inches (mm)	A	B	C	D
Standard Unit	1/4" NPT Female	1/4" NPT Female		2.65 (67)	1.30 (33)	1.12 (28.5)	.65 (16.5)
L01-02-M00	1/4" NPT Female	1/4" NPT Male		2.93 (74)	1.30 (33)	1.12 (28.5)	.65 (16.5)
L01-03-M00	3/8" NPT Female	3/8" NPT Male		3.19 (81)	1.30 (33)	1.12 (28.5)	.65 (16.5)

 = "Most Popular"

Specifications

Flow Capacity*	1/4 3/8	36.0 SCFM (17.0 dm ³ /s) 38.1 SCFM (18.0 dm ³ /s)
Maximum Supply Pressure	200 PSIG (13.8 bar)	
Oil Capacity**	oz. (cm ³)	0.25 (7.4)
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPT-Rc	1/4, 3/8
Weight	lb. (kg)	0.2 (0.1)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

** Oil Capacity refers to usable volume.

Materials of Construction

Body	Aluminum
Seals	Nitrile

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

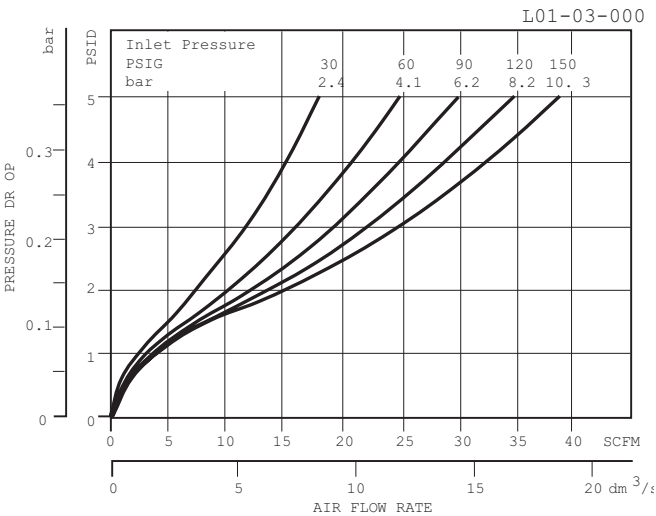
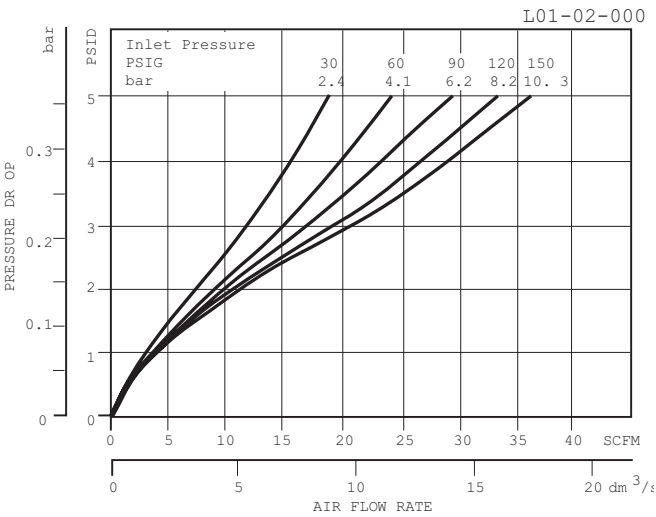
= “Most Popular”

Replacement Kits

- Fill Plug Kit – Brass Fill Plug and O-ring.....LRP-95-254
- O-ring Repair KitLRP-95-074

Accessories

- Air Line Oil (1 Qt. Bottle).....F442001



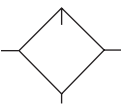
Ordering Information

Model Type	Port Size	Female Threads Inlet / Female Threads Outlet	Female Threads Inlet / Male Threads Outlet
In-Line Lubricator	1/4	L01-02-000	L01-02-M00
	3/8	L01-03-000	L01-03-M00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator

L03 EconOmist™

 = "Most Popular"

L03-01-000

Features

- Proportional Oil Delivery over a Wide Range of Air Flows
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Ideal for Low and Light Flow Applications with Changing Air Flow
- Transparent Sight Dome for 360° Visibility

Specifications

Flow Capacity*	1/8	20 SCFM (9.4 dm³/s)
	1/4	20 SCFM (9.4 dm³/s)
Minimum Flow for Lubrication		0.7 SCFM at 100 PSIG
Port Threads		1/8, 1/4 Inch
Pressure & Temperature Ratings –		
Polycarbonate Bowl –		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl –		0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)
Weight		.4 lb. (.18 kg)

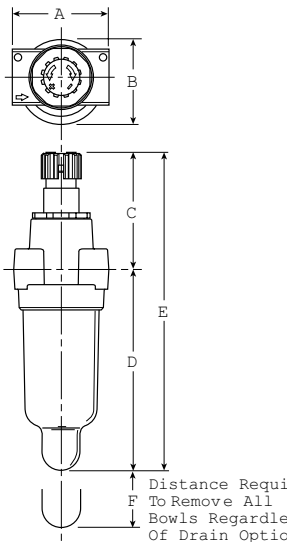
* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl (Without Sight Gauge)	Zinc
Drains – Manual – Body & Nut		Plastic
Seals		Nitrile
Sight Dome		Polycarbonate

Suggested Lubricant

Airline Oil F442001
Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)



Dimensions

Models	Inches (mm)	A	B	C	D	D†	E	E†	F
Standard Unit L03-XX-000		1.73 (44)	1.56 (40)	2.16 (55)	3.64 (92)	3.78 (96)	5.80 (147)	5.94 (151)	1.60 (41)

† With Twist Drain

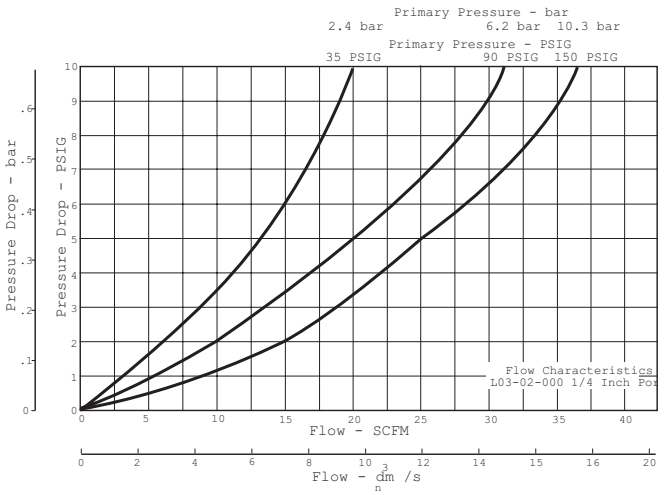
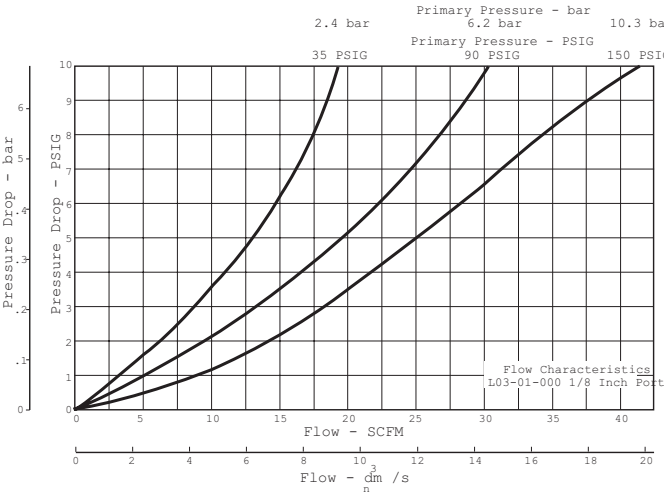
= “Most Popular”

Replacement Kits

- Bowl Kits –**
- Poly Bowl, Manual DrainPS420
 - Metal Bowl – Manual Drain (No Sight Gauge)PS447B
 - Poly Bowl – No DrainPS421

Accessories

- Air Line Oil (1 Qt. Bottle).....F442001
- Mounting Bracket Kit** PS419



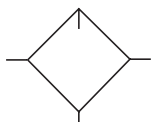
Ordering Information

Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
EconOmist™	1/8	L03-01-000	L03-01-M00
	1/4	L03-02-000	L03-02-M00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

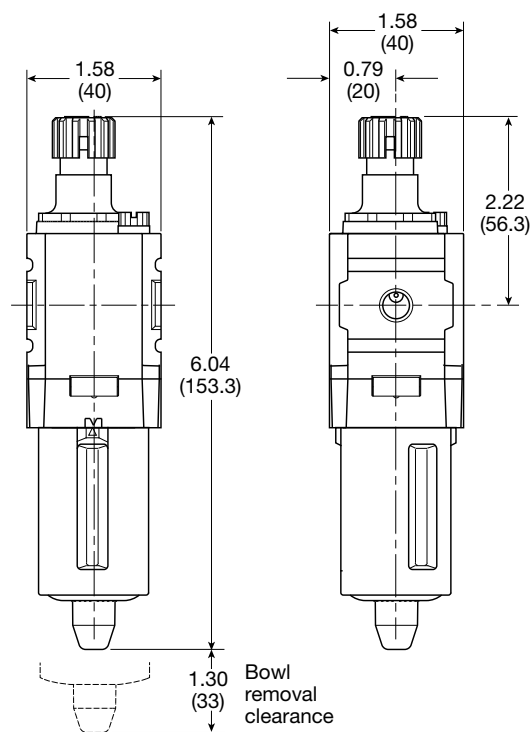
Lubricator

L08 EconOmist™



Features

- Integral Sight Dome and Adjustment Knob
- Fill-under Pressure Design
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- Quick-disconnect Bowl



Inches (mm)

Specifications

Flow Capacity*	1/4	52 SCFM (25 dm ³ /s, ANR)
Initial Drip Flow		1.3 SCFM
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 250 PSIG (17.2 bar)
Minimum Flow for Lubrication		1.3 SCFM @ 100 PSIG
Operating Temperature	Plastic Bowl Metal Bowl	14° to 125°F (-10° to 52°C) 14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Bowl Capacity		0.6 oz
Weight		0.29 lb. (0.13 kg)

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 4.9 PSID (0.34 bar).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Pick-up Filter	Sintered Bronze	
Seals	Plastic Bowl Metal Bowl	Nitrile Nitrile
Sight Dome	Polycarbonate	

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

= "Most Popular"

Replacement Bowl Kits

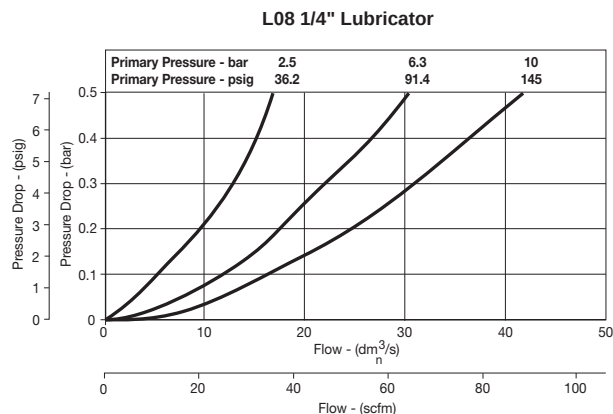
Metal Bowl –	
Manual Drain	GRP-96-714
No Drain Port	GRP-96-715
Plastic Bowl –	
Bowl Guard, Manual Drain	LRP-96-736
Bowl Guard, No Drain Port	LRP-96-713

Replacement Kits

Bowl O-ring –	
Fluorocarbon	GRP-96-711
Nitrile	GRP-96-710
Fill Plug Kit	LRP-96-730
Sight Dome Assembly –	
Nylon	LRP-96-720
Polycarbonate, L08-XX-KXXX	LRP-96-725
Siphon Tube Assembly	LRP-96-731

Accessories

Wall Mounting Bracket –	
C-Type	GPA-97-010
T-Type	GPA-96-737



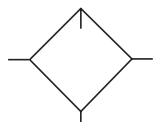
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / No Sight Gauge
No Drain	1/4	L08-02-KC00B	L08-02-KD00B
Manual Drain	1/4	L08-02-KK00B	L08-02-KL00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

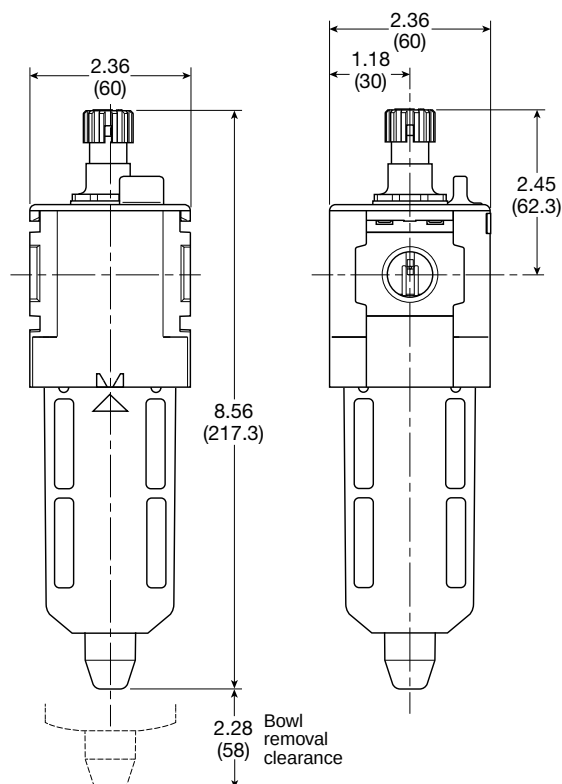
Lubricator

L18 EconOmist™



Features

- Integral Sight Dome and Adjustment Knob
- 1/2" NPT / BSPP-G Over-port
- Can be Filled while Under Pressure
- Quick-disconnect Bowl / Bowl Guard
- Manual Drain
- High Flow Capacities



Specifications

Flow Capacity*	1/4	88 SCFM (42 dm ³ /s, ANR)
	3/8	90 SCFM (43 dm ³ /s, ANR)
	1/2	96 SCFM (45 dm ³ /s, ANR)
Initial Drip Flow		0.68 SCFM
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Minimum Flow for Lubrication		.7 SCFM @ 100 PSIG
Operating Temperature	Plastic Bowl	14° to 125°F (-10° to 52°C)
	Metal Bowl	14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G 1/4, 3/8, 1/2	
Bowl Capacity	4 oz	
Weight	0.68 lb. (0.31 kg)	

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 4.9 PSID (0.34 bar).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Pick-up Filter	Sintered Bronze	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome	Polycarbonate	
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Inches (mm)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Manual Drain GRP-96-636
 Plastic Bowl / Bowl Guard, Manual Drain..... LRP-96-701

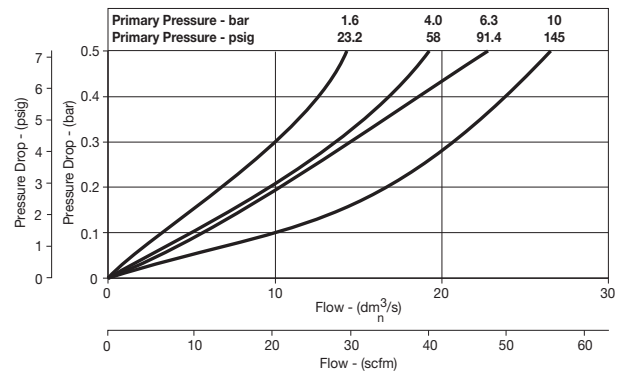
Replacement Kits

Bowl O-ring –
 Fluorocarbon GRP-96-754
 Nitrile GRP-96-640
 Bypass Assembly LRP-96-678
 Fill Plug Kit LRP-96-679
 Sight Dome Assembly –
 Nylon..... LRP-96-720
 Polycarbonate, L18-XX-**KK**00 LRP-96-725
 Siphon Tube Assembly..... LRP-96-677

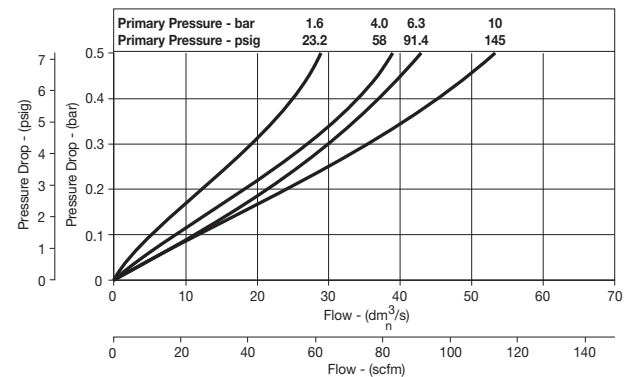
Accessories

Force Fill Adapter LRP-96-704
 Manual Drain..... GRP-96-685
 Sight Gauge Kit GRP-96-825
 Wall Mounting Bracket –
 L-Type GPA-96-604
 T-Type GPA-96-602

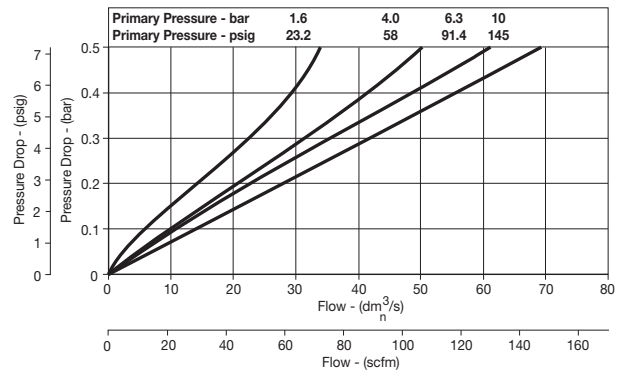
L18 1/4" Lubricator



L18 3/8" Lubricator



L18 1/2" Lubricator



Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge
No Drain	1/4	L18-02-KC00B	L18-02-KD00B
	3/8	L18-03-KC00B	L18-03-KD00B
	1/2	L18-04-KC00B	L18-04-KD00B
Manual Drain	1/4	L18-02-KK00B	L18-02-KL00B
	3/8	L18-03-KK00B	L18-03-KL00B
	1/2	L18-04-KK00B	L18-04-KL00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator

L16 EconOmist™

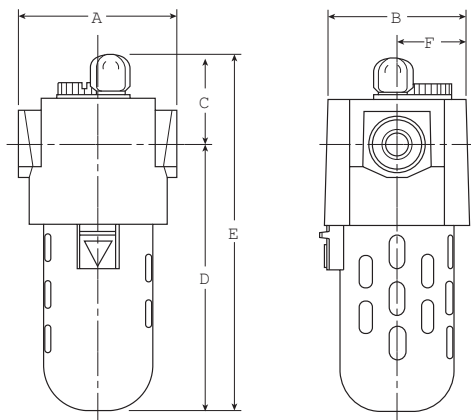
L17 AtoMist™

 = "Most Popular"


L16 / L17-02-000

Features

- L16 Model Can be Filled with Lubricant while Under Pressure (**L17 AtoMist™ Cannot be Filled Under Pressure**)
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Adjustable Oil Feed
- Optional Petcock Drain in Polycarbonate Bowl



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L16-XX-000 & L17-XX-000		3.00 (76)	2.62 (66.5)	1.62 (41)	5.03 (128)	6.66 (169)	1.31 (33.3)
Manual Drain L16-XX-D00 & L17-XX-D00		3.00 (76)	2.62 (66.5)	1.62 (41)	5.83 (148)	6.58 (167)	1.31 (33.3)
Metal Bowl with Sight Gauge L16-XX-G00 & L17-XX-G00		3.00 (76)	2.62 (66.5)	1.62 (41)	6.21 (158)	7.80 (198)	1.31 (33.3)

Specifications

Flow Capacity*	1/4	36.1 SCFM (17.0 dm ³ /s)
	3/8	58.5 SCFM (27.6 dm ³ /s)
	1/2	64.0 SCFM (30.2 dm ³ /s)
Initial Drip Flow	.38 - 1.37 SCFM	
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Minimum Flow for Lubrication	1.4 SCFM @ 100 PSIG	
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Bowl Capacity	L16	5.0 oz
	L17	3.4 oz
Weight	1.8 lb. (0.82 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Dome	Polycarbonate	
Sight Gauge	Metal Bowl	Polycarbonate

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge,
Brass Petcock Drain GRP-95-133

Plastic Bowl –
No Drain Port LRP-96-937
Plastic Petcock Drain LRP-96-543

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253

Flow Guide –

1/4 NPT / BSPP-G, L16 LRP-95-241

3/8 and 1/2 NPT / BSPP-G, L16 LRP-95-242

1/4 NPT / BSPP-G, L17 LRP-95-246

3/8 and 1/2 NPT / BSPP-G, L17 LRP-95-247

Sight Dome Kit – Sight Dome and O-ring LRP-95-239

Tube, Siphon – Tube and Bronze Filter LRP-96-005

Accessories

Air Line Oil (1 Qt. Bottle) F442001

Low Level Switch LRP-95-093

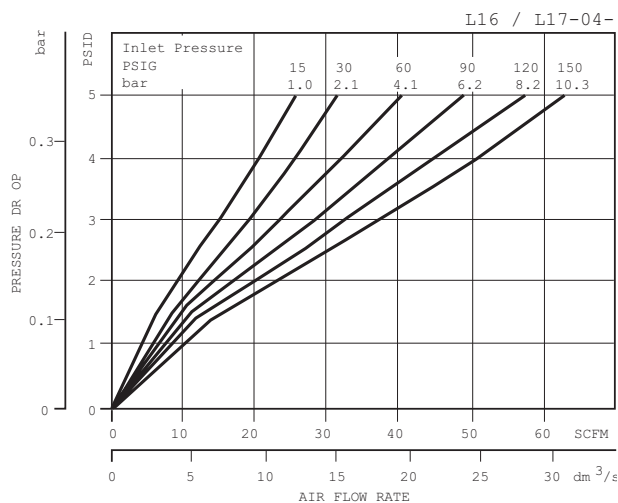
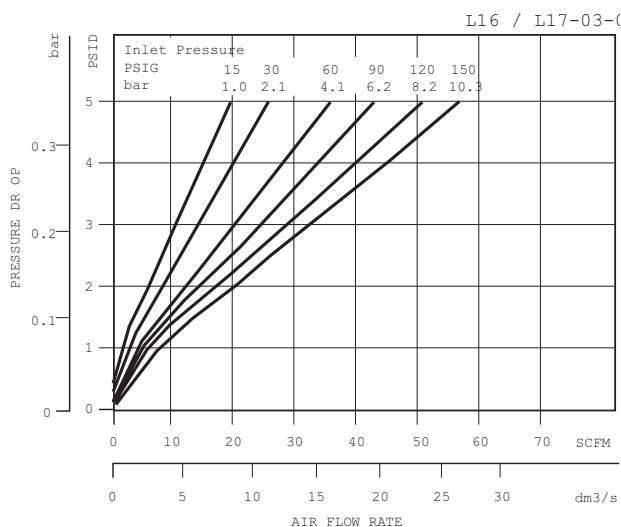
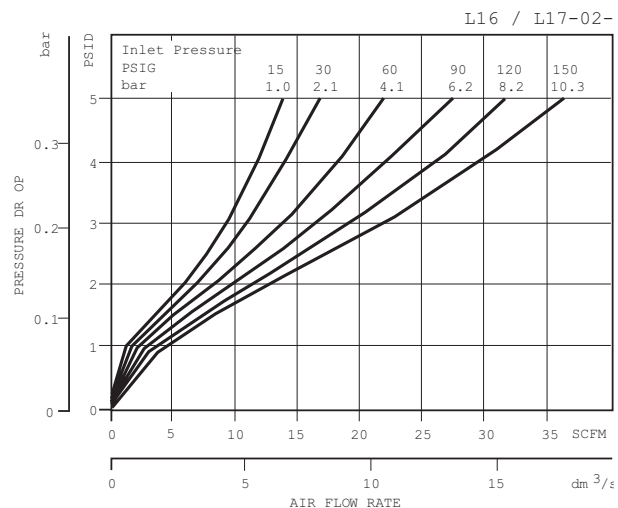
Manual Drain –

Brass Petcock GRP-95-182

Plastic Petcock LRP-95-181

Tamper Resistant Kit LRP-95-587

Wall Mounting Bracket, L-Type GPA-95-016



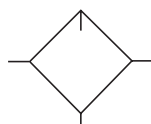
Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard with Manual Drain	Metal Bowl / Sight Gauge
EconOmist™	1/4	L16-02-000	L16-02-D00	L16-02-G00
	3/8	L16-03-000	L16-03-D00	L16-03-G00
	1/2	L16-04-000	L16-04-D00	L16-04-G00
AtoMist™	1/4	L17-02-000	L17-02-D00	L17-02-G00
	3/8	L17-03-000	L17-03-D00	L17-03-G00
	1/2	L17-04-000	L17-04-D00	L17-04-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

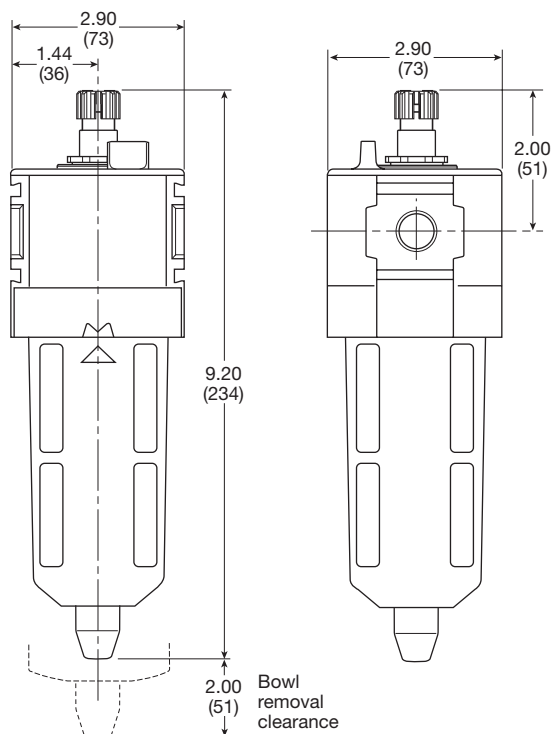
Lubricator

L28 EconOmist™



Features

- Integral Sight Dome and Adjustment Knob
- 3/4" NPT / BSPP-G Over-port
- Can be Filled while Under Pressure
- Quick-disconnect Bowl / Bowl Guard
- High Flow Capacities



Inches (mm)

Specifications

Flow Capacity*	3/8	110 SCFM (52 dm ³ /s, ANR)
	1/2	110 SCFM (52 dm ³ /s, ANR)
	3/4	150 SCFM (71 dm ³ /s, ANR)
Initial Drip Flow		1.26 SCFM
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Minimum Flow for Lubrication		1.3 SCFM@ 100 PSIG
Operating Temperature	Plastic Bowl	14° to 125°F (-10° to 52°C)
	Metal Bowl	14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G 3/8, 1/2, 3/4	
Bowl Capacity	6 oz	
Weight	1.04 lb. (0.47 kg)	

* Inlet pressure 91.3 PSIG (6.3 bar). Pressure drop 4.9 PSID (0.34 bar).

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Pick-up Filter	Sintered Bronze	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome	Polycarbonate	
Sight Gauge	Metal Bowl	Polyamide (Nylon)

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl with Sight Gauge, Manual Drain GRP-96-644

Plastic Bowl / Bowl Guard, Manual Drain..... LRP-96-702

Replacement Kits

Bowl O-ring, Nitrile GRP-96-654

Bowl O-ring, Fluorocarbon GRP-96-755

Bypass Assembly LRP-96-678

Fill Plug Kit LRP-96-679

Sight Dome Assembly –

Nylon..... LRP-96-720

Polycarbonate, L28-XX-KK00..... LRP-96-725

Siphon Tube Assembly..... LRP-96-681

Accessories

Force Fill Adapter LRP-96-704

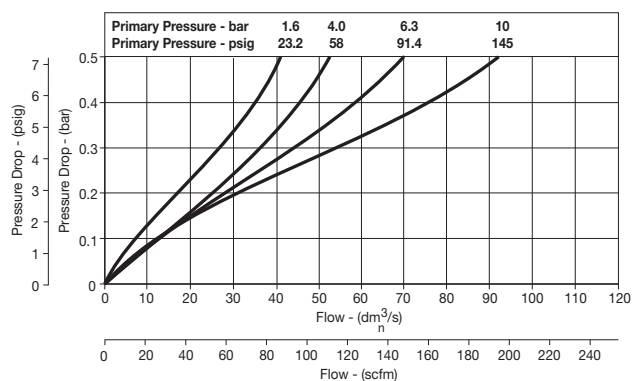
Sight Gauge Kit GRP-96-825

Wall Mounting Bracket –

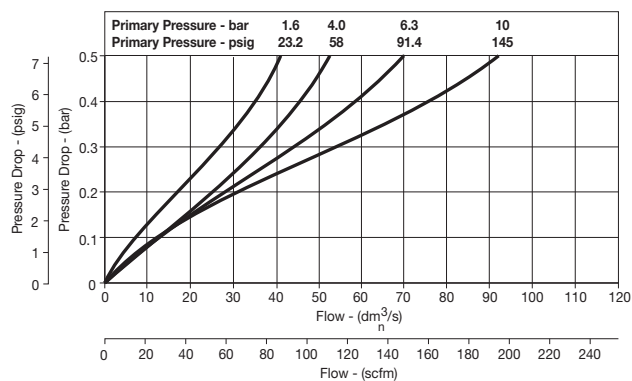
L-Type..... GPA-96-605

T-Type GPA-96-602

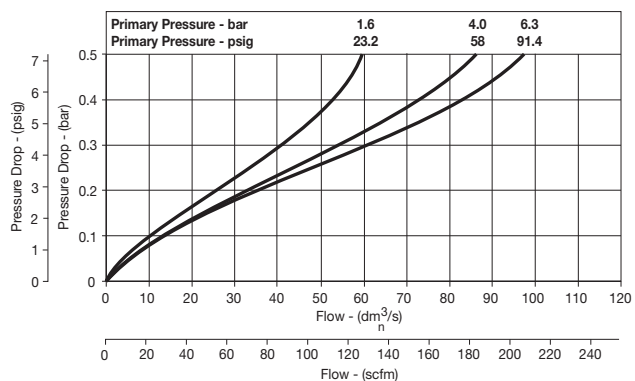
L28 3/8" Lubricator



L28 1/2" Lubricator



L28 3/4" Lubricator



Ordering Information

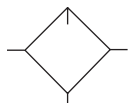
Model Type	Port Size	Plastic Bowl / Bowl Guard	Metal Bowl / Sight Gauge
No Drain	3/8	L28-03-KC00B	L28-03-KD00B
	1/2	L28-04-KC00B	L28-04-KD00B
	3/4	L28-06-KC00B	L28-06-KD00B
Manual Drain	3/8	L28-03-KK00B	L28-03-KL00B
	1/2	L28-04-KK00B	L28-04-KL00B
	3/4	L28-06-KK00B	L28-06-KL00B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator

L26 EconOmist™

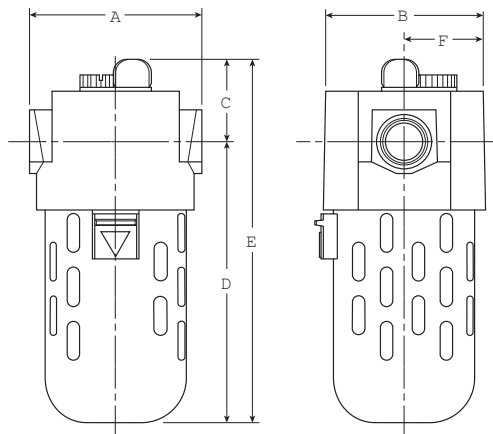
L27 AtoMist™

 = "Most Popular"


L26 / L27-02-000

Features

- L26 Model Can be Filled with Lubricant while Under Pressure (**L27 AtoMist™ Cannot be Filled Under Pressure**)
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Bowl Guard with Integral Plastic Bowl and Safety Latch
- Adjustable Oil Feed
- Optional Petcock Drain in Polycarbonate Bowl



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L26-XX-000 & L27-XX-000		3.35 (85)	3.06 (78)	1.60 (41)	5.46 (139)	7.06 (179)	1.53 (38.9)
Manual Drain L26-XX-D00 & L27-XX-D00		3.35 (85)	3.06 (78)	1.60 (41)	6.42 (163)	7.76 (197)	1.53 (38.9)
Metal Bowl with Sight Gauge L26-XX-G00 & L27-XX-G00		3.35 (85)	3.06 (78)	1.60 (41)	6.42 (163)	7.80 (198)	1.53 (38.9)

Specifications

Flow Capacity*	1/4	35 SCFM (16.5 dm ³ /s)
	3/8	60 SCFM (28.3 dm ³ /s)
	1/2	128 SCFM (60.4 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G 1/4, 3/8, 1/2	
Bowl Capacity	L26	10.0 oz
	L27	6.6 oz
Weight	2.4 lb. (1.07 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Sight Gauge	Metal Bowl	Nylon
Sight Dome	Nylon	

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl / Sight Gauge, Brass Petcock Drain .. GRP-95-931

Plastic Bowl –

No Drain PortLRP-96-938

Plastic Petcock DrainLRP-95-958

Plastic Bowl / Guard, Brass Petcock DrainLRP-95-967

Replacement Kits

Fill Plug Kit – Fill Plug and O-ringLRP-95-253

Flow Guide –

1/4 NPT / BSPP-G, L26 LRP-95-241

3/8 NPT / BSPP-G, L26 LRP-95-242

1/2 NPT / BSPP-G, L26..... LRP-95-243

1/4 NPT / BSPP-G, L27..... LRP-95-246

3/8 NPT / BSPP-G, L27 LRP-95-247

1/2 NPT / BSPP-G, L27..... LRP-95-248

Sight Dome Kit – Sight Dome and O-ringLRP-95-239

Tube, Siphon – Tube and Bronze Filter LRP-96-137

Accessories

Air Line Oil (1 Qt. Bottle).....F442001

Auto-Fill™ Adapter Kit.....LRP-95-965

Low Level SwitchLRP-95-093

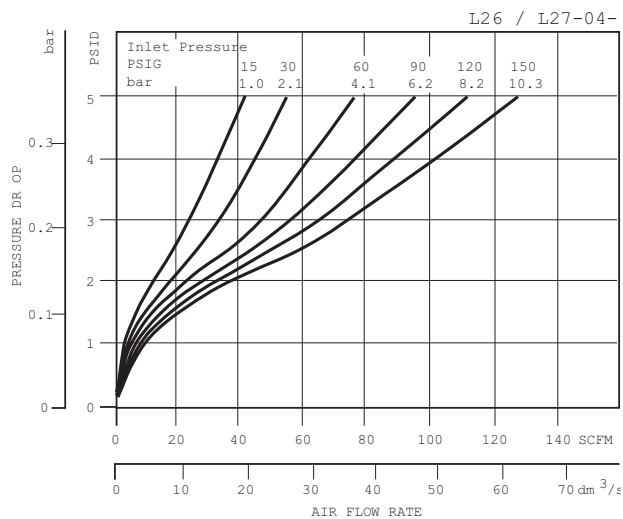
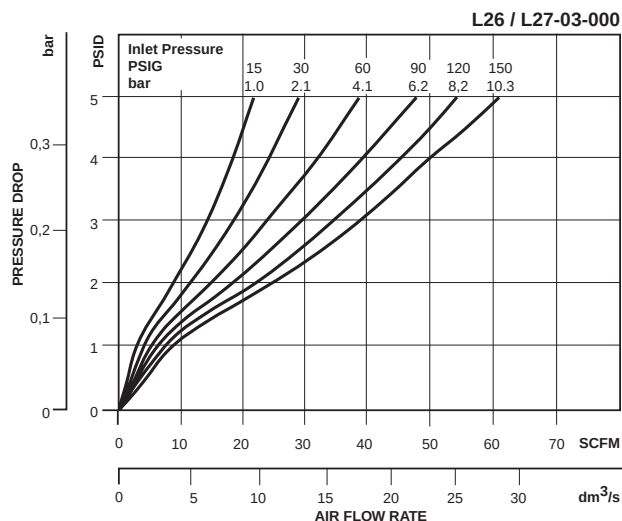
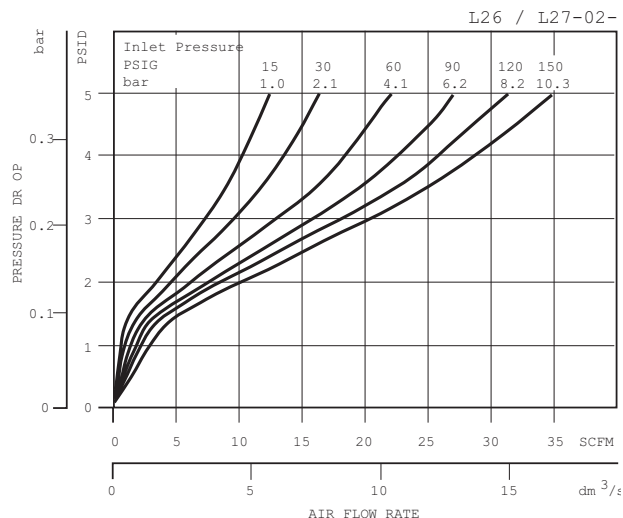
Manual Drain –

Brass Petcock..... GRP-95-182

Plastic Petcock LRP-95-181

Tamper Resistant Kit.....LRP-95-587

Wall Mounting Bracket, L-Type..... GPA-95-946



Ordering Information

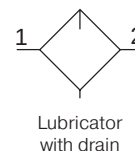
Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard with Manual Drain	Metal Bowl / Sight Gauge
EconOmist™	1/4	L26-02-000	L26-02-D00	L26-02-G00
	3/8	L26-03-000	L26-03-D00	L26-03-G00
	1/2	L26-04-000	L26-04-D00	L26-04-G00
AtoMist™	1/4	L27-02-000	L27-02-D00	L27-02-G00
	3/8	L27-03-000	L27-03-D00	L27-03-G00
	1/2	L27-04-000	L27-04-D00	L27-04-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator L90



Symbol



 = "Most Popular"

Features

- Integral 3/4" or 1" ports (BSPP & NPT)
- Robust but lightweight aluminum construction
- Proportional oil delivery over a wide range of air flows
- Possible to fill under system pressure eliminating down time
- Large oil reservoir

L90	-	0	6	-	L	D	0	0
Series		Thread type*		Port size	Lubricator	Bowl / drain		
Lubricator L90		NPT 0		3/4 6	L EconOmist™	Metal bowl / sight gauge, no drain		
		BSPP C		1 8		D		

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Ordering information

Port size	Description	Flow† scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Bowl capacity cm³ (oz)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number†
3/4"	Oil mist, fill under pressure	315	17.5 (254)	-10 (14)	60 (140)	500 (16.9)	247 (9.7)	90 (3.5)	94 (3.7)	0.8 (1.8)	L90-06-LD00
1"	Oil mist, fill under pressure	390	17.5 (254)	-10 (14)	60 (140)	500 (16.9)	247 (9.7)	90 (3.5)	94 (3.7)	0.8 (1.8)	L90-08-LD00

† Standard part numbers shown in bold. For other models refer to Options chart above.

‡ Flow with 6.3 bar (91.4 psig) inlet pressure and 0.5 (7.3 psig) pressure drop.

Specifications

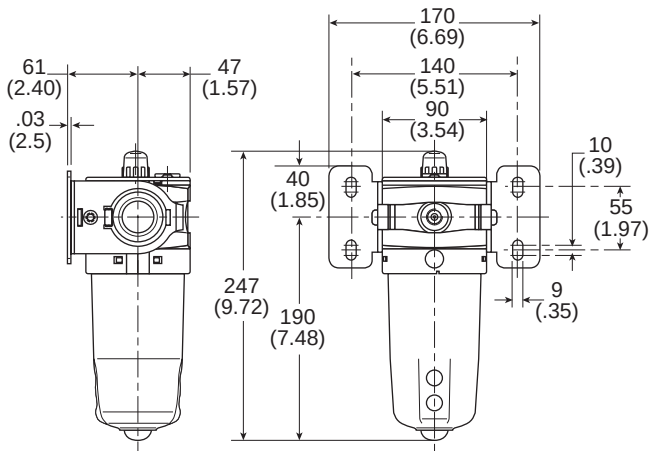
Fluid	Compressed air
Maximum inlet pressure*	17.5 bar (254 psig)
Temperature range*	-10°C to 60°C (14°F to 140°F)

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35.6°F).

Low flow start point (lubrication pick-up): at 6.3 bar (91.4 psig) inlet pressure 0.5 dm³/s (1.1 scfm).

Flow with 6.3 bar (91.4 psig) inlet pressure and 0.5 bar (7.3 psig) pressure drop.

Dimensions mm (inches)



Service kits

Bowl kit.....	P3YKA00BSN
Refill plug	P3YKA00PL
Lubricator oil	F442002

Material specifications

Body	Aluminum
Sight glass	Polypropylene
Sight dome	Polyamide
Lubricator cover	ABS
Top & bottom end cap	Glass filled nylon
Bayonet support	Nylon
Seals	Nitrile NBR

Suggested Lubricant

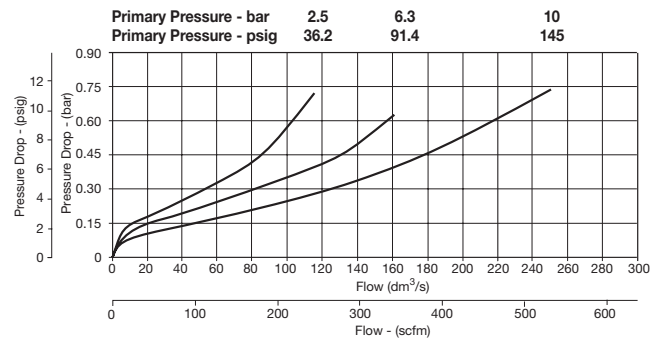
Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

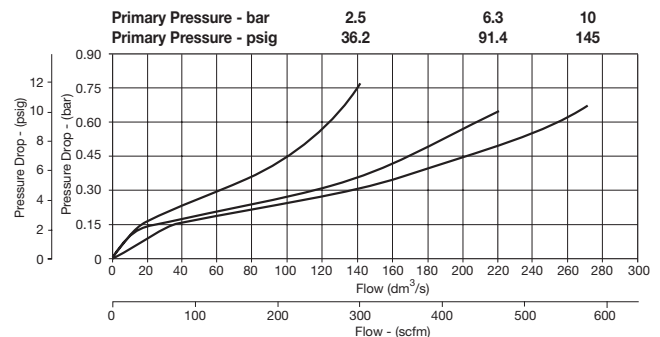
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Flow characteristics

(3/4") Lubricator

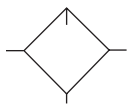


(1") Lubricator



Lubricator

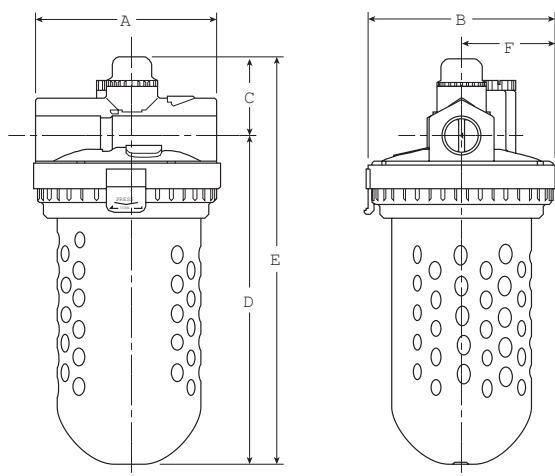
L30 EconOmist™



L30-06-000

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Adjustable Oil Feed
- Standard Transparent Bowl with Metal Bowl Guard
- Optional Petcock in Polycarbonate Bowl
- Can be Filled while Under Pressure



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L30-XX-000		4.63 (117)	4.79 (122)	1.98 (50)	8.36 (212)	10.38 (264)	2.40 (61)
Manual Drain L30-XX-D00		4.63 (117)	4.79 (122)	1.98 (50)	8.90 (226)	10.90 (277)	2.40 (61)
Metal Bowl with Sight Gauge L30-XX-G00		4.63 (117)	4.79 (122)	1.98 (50)	8.90 (226)	10.95 (278)	2.40 (61)

Specifications

Flow Capacity*	3/4 1	196 SCFM (92.4 dm ³ /s) 374 SCFM (176.4 dm ³ /s)
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl Metal Bowl	32° to 125°F (0° to 52°C) 32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	3/4, 1
Bowl Capacity		26.0 oz
Weight		5.6 lb. (2.54 kg)

* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body		Zinc
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Seals	Plastic Bowl Metal Bowl	Nitrile Fluorocarbon
Sight Dome		Nylon
Sight Gauge	Metal Bowl	Tempered Safety Glass

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl / Sight Gauge, Brass Petcock Drain .. GRP-95-676

Plastic Bowl –

Guard, Plastic Petcock Drain LRP-95-830

No Drain Port LRP-96-940

Plastic Petcock Drain LRP-96-160

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-253

Flow Guide –

3/4 NPT / BSPP-G LRP-95-189

1 NPT / BSPP-G LRP-95-190

Sight Dome Kit – Sight Dome and O-ring LRP-95-249

Tube, Siphon – Tube and Bronze Filter LRP-96-182

Accessories

Air Line Oil (1 Qt.) F442001

Air Line Oil (1 Gal.) F442002

Auto-Fill™ Adapter Kit LRP-95-698

Force Fill Adapter GRP-96-394

Manual Drain –

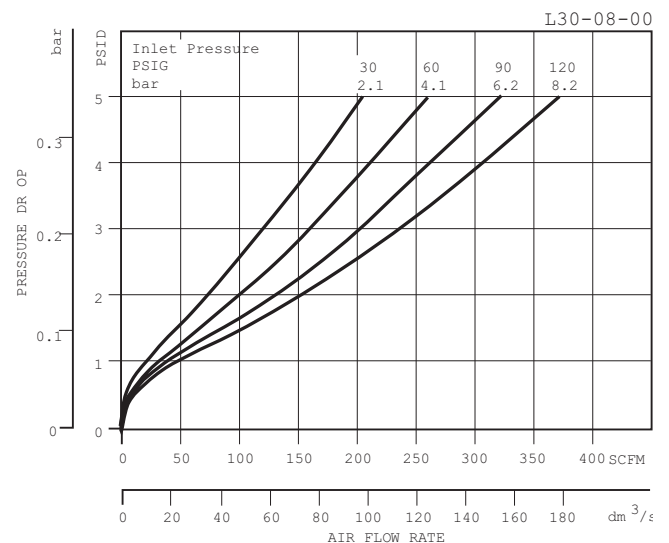
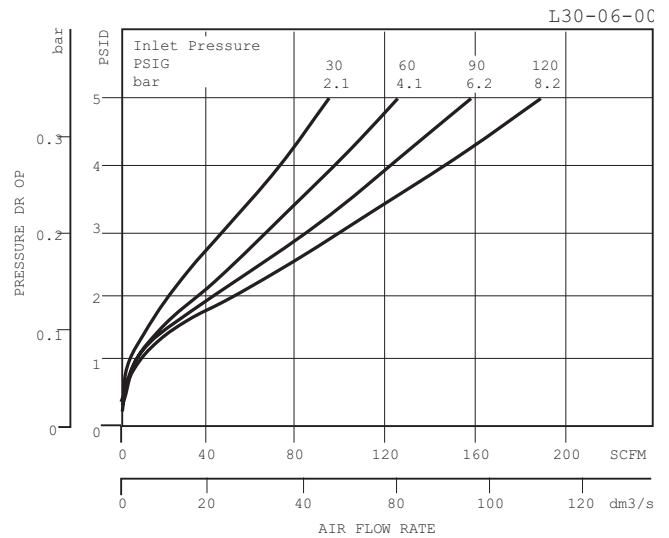
Brass Petcock GRP-95-182

Plastic Petcock LRP-95-181

Sight Gauge Kit LRP-95-771

Tamper Resistant Kit LRP-95-587

Wall Mounting Bracket, U-Bolt Pipe Clamp GRP-95-734



Ordering Information

Model Type	Port Size	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard with Manual Drain	Metal Bowl / Sight Gauge
EconOmist™	3/4	L30-06-000	L30-06-D00	L30-06-G00
	1	L30-08-000	L30-08-D00	L30-08-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Lubricator

L40 EconOmist™



L40-0B-000

Features

- Full View Sight Dome
- Siphon Tube Filter Provides Clean Lubricant Downstream
- Quick-Disconnect Clamp Ring for Easy Bowl Removal
- Adjustable Oil Feed
- Standard Transparent Bowl with Metal Bowl Guard
- Can be Filled while Under Pressure

Specifications

Flow Capacity*	1-1/2	927 SCFM (437 dm ³ /s)
Initial Drip Flow		.95 SCFM
Maximum Supply Pressure		150 PSIG (10.3 bar)
Minimum Flow for Lubrication		1 SCFM @ 100 PSIG
Operating Temperature		32° to 125°F (0° to 52°C)
Port Size	NPT / BSPP-G	1-1/4, 1-1/2
Bowl Capacity		26.0 oz
Weight		9.4 lb. (4.3 kg)

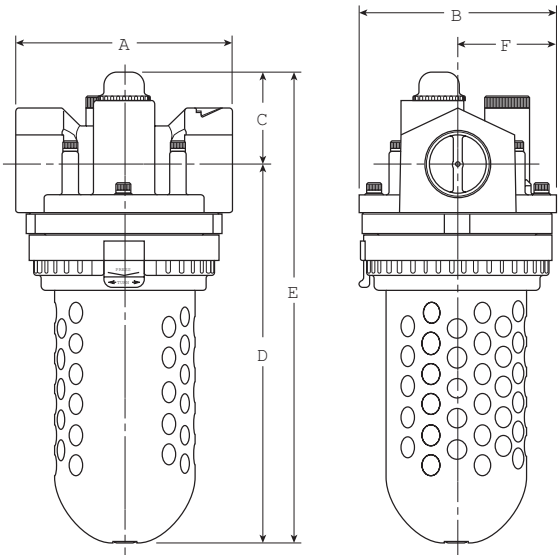
* Inlet pressure 120 PSIG (8.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Zinc
Bowl	Polycarbonate
Seals	Nitrile
Sight Dome	Nylon

Suggested Lubricant

Airline Oil F442001
Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit L40-XX-000		5.50 (140)	4.79 (122)	2.27 (58)	9.40 (239)	11.67 (296)	2.40 (61)

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –

Brass Petcock Drain FRP-95-593
 Sight Gauge, Brass Petcock Drain..... GRP-95-676

Plastic Bowl –

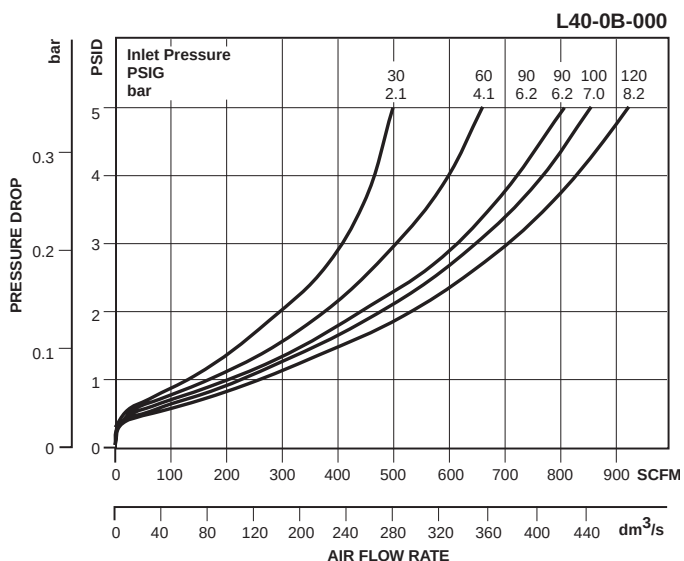
Plastic Petcock Drain LRP-96-160
 Guard, Plastic Petcock Drain LRP-95-830
 No Drain Port LRP-96-940

Replacement Kits

Fill Plug Kit – Fill Plug and O-ring LRP-95-250
 Sight Dome Kit – Sight Dome and O-ring LRP-95-249
 Tube, Siphon – Tube and Bronze Filter LRP-96-182

Accessories

Air Line Oil (1 Qt.)..... F442001
 Air Line Oil (1 Gal.) F442002
 Brass Petcock..... GRP-95-182
 Plastic Petcock LRP-95-181
 Tamper Resistant Kit..... LRP-95-587



Ordering Information

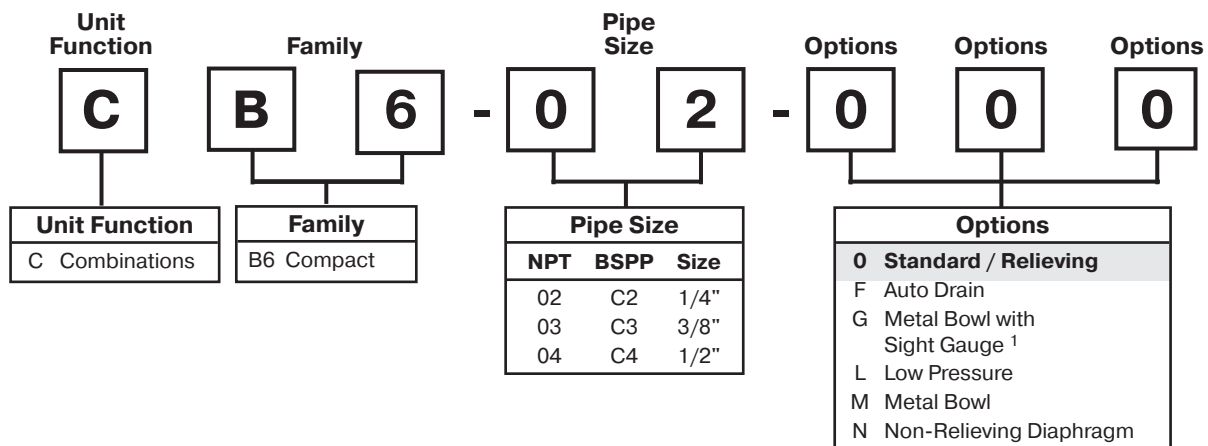
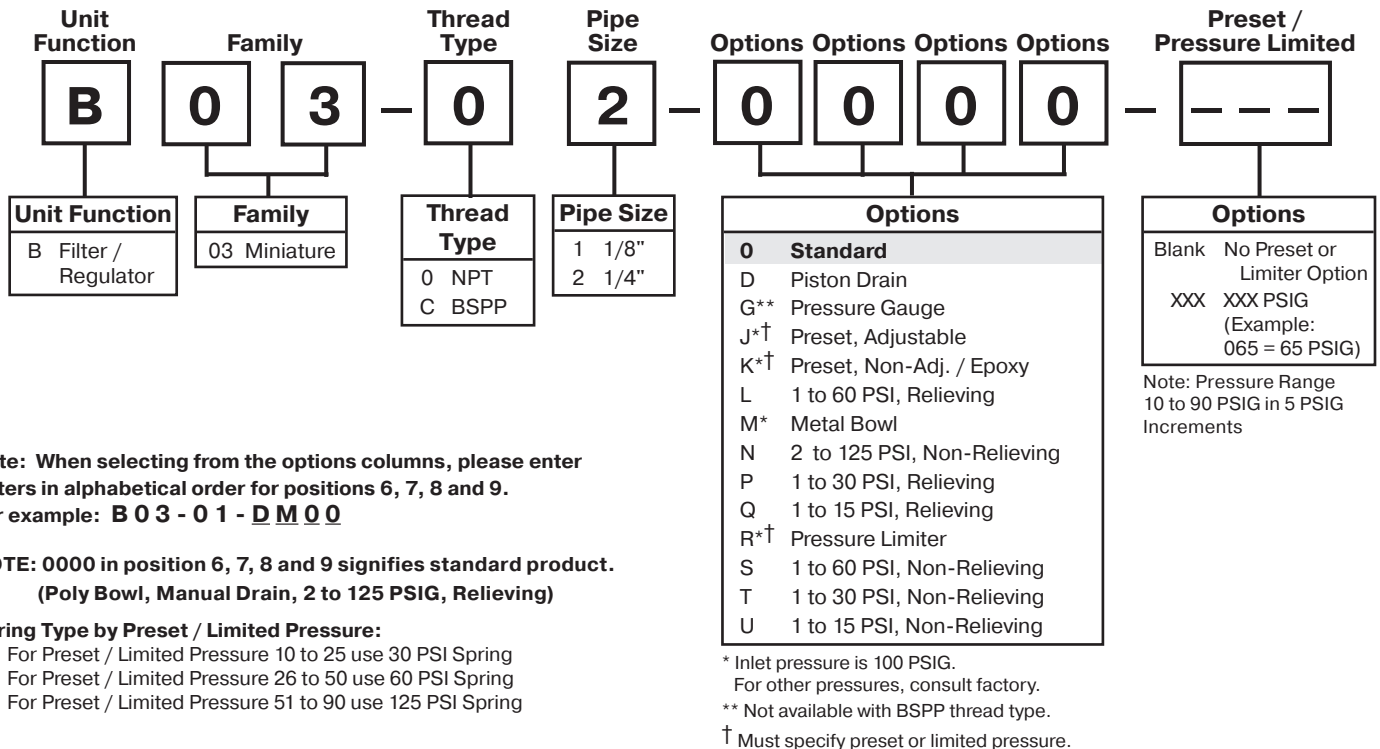
Model Type	Port Size	Metal Bowl / Sight Gauge / Manual Drain	Polycarbonate Bowl / Bowl Guard	Polycarbonate Bowl / Bowl Guard / Manual Drain
EconOmist™	1-1/2	L40-0B-G00	L40-0B-000	L40-0B-D00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

Filter / Regulator Numbering System

 = "Most Popular"



¹ For miniature family units, G option is a pressure gauge.
 For compact, G option is a metal bowl with sight gauge.

"F" Series Filters, Type "A" 5 micron elements:
 All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, and 8.
 For example:

CB6-02-0 0 0

Note: 000 in positions 6, 7 and 8 signifies standard product.

Filter / Regulator Numbering System

= "Most Popular"

Unit Function

B

Unit Function

B Filter / Regulator

Family

B

Family

B3 Brass Miniature
A3 Aluminum Miniature

Thread Type

3

Thread Type

0 NPT
C BSPP ¹

Pipe Size

0

Pipe Size

1 1/8"
2 1/4"

Diaphragm Function

2

Diaphragm Function

1 Relieving
2 Non-relieving ¹

Bowls / Drains

F

Bowls / Drains

Relieving: C, D, F
Non-relieving: P, W, R

Options

K

Options

Pressure Gauge, Remote Air Piloted, Tamper Resistant Regulator Adj, Brass Bonnet and Hex Adjustment Knob

Options

G

Options

Pressure Gauge, Remote Air Piloted, Tamper Resistant Regulator Adj, Brass Bonnet and Hex Adjustment Knob

Options

0

Options

Pressure Gauge, Remote Air Piloted, Tamper Resistant Regulator Adj, Brass Bonnet and Hex Adjustment Knob

Diaphragm Function	Fluorocarbon	Spring Range		
		1 to 25 PSIG (0.07 to 1.7 bar)	1 to 60 PSIG (0.07 to 4.1 bar)	2 to 125 PSIG (0.14 to 8.6 bar)
Relieving	No	C	D	F
	Yes	J	K	L
Non-relieving ¹	No	P	W	R
	Yes	V	X	Y

NOTE: Standard pressure adjustment is plastic "snap lock" knob and plastic bonnet with plastic panel mount nut.

¹ ISO, R228 (G Series)

Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed** ISO Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Drains	Bowls	
	Plastic	Metal
Manual Drain	K	L
Piston Drain	R	S

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 8 and 9. For example:

BB3-02-F K G T

Series

B90

Filter / Regulator Combination

Thread type*

0

NPT

Port size

6

3/4 6
1 8

Function / pressure range

A

Relieving / 0 to 174 PSI

Bowl / drain type

H

Metal bowl / sight gauge & auto drain

Option

0

None

Option

G

Pressure Gauge

Option

A†

Lockable type

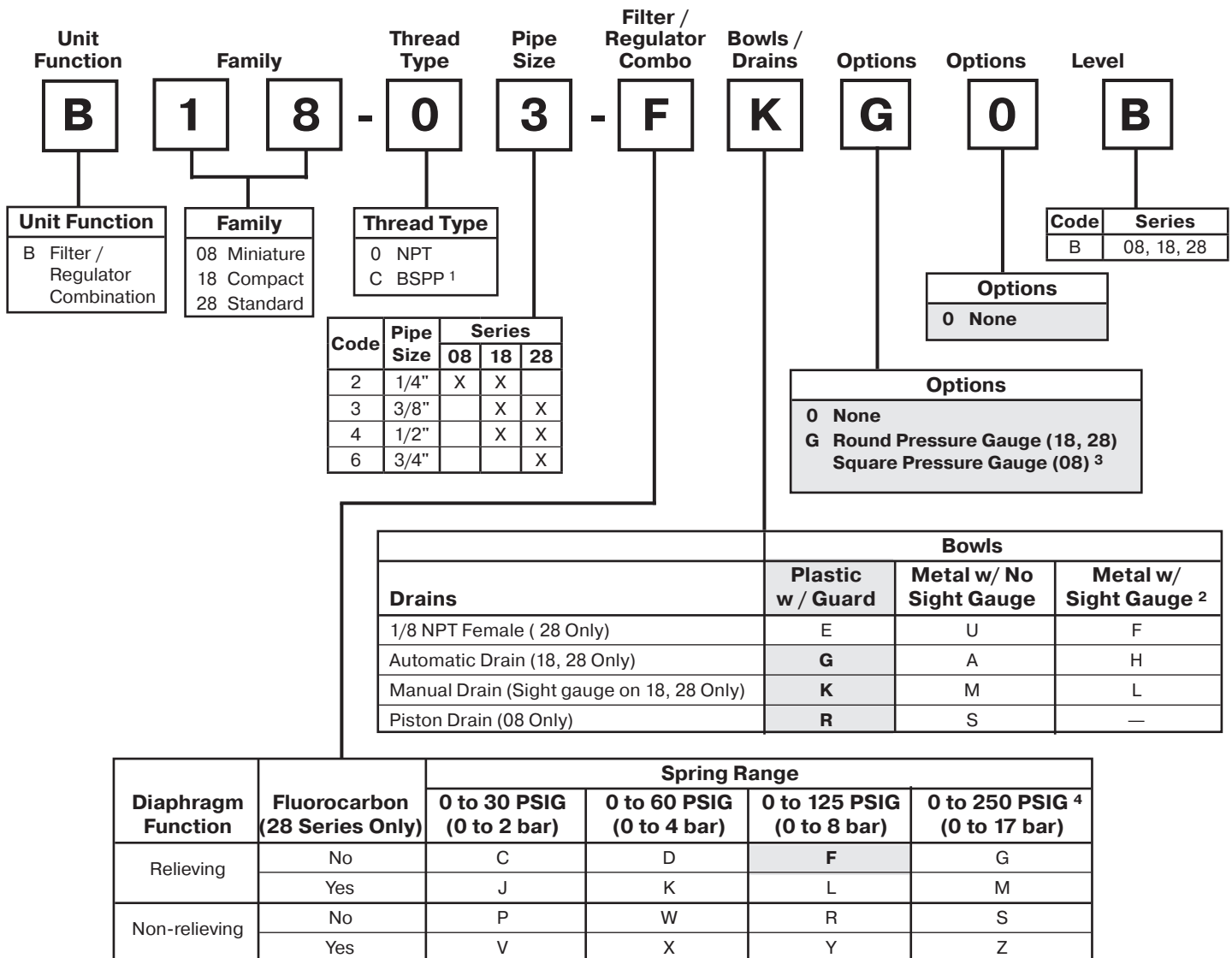
Notes:

* For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

† Not field convertible.

Bold items are most common.

Filter / Regulator Numbering System

 = "Most Popular"
¹ ISO, R228 (G Series)² B08 Filter / Regulator has an all metal bowl (no sight gauge)³ Square gauge included with B08⁴ B08 series operating range 0 to 232 PSIG (1 to 16 bar)

NOTE: When selecting from the options columns, please enter letters in alphabetical order, for positions 7, 8, 9. For example:

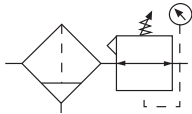
B 18-03-F K 0 0 B

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Filter / Regulator

B03

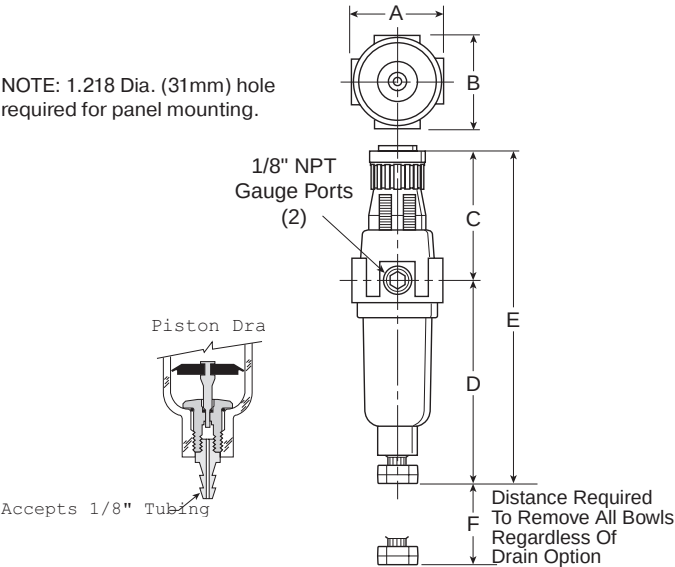


B03-02-0000

Features

- Excellent Water Removal Efficiency
- Unbalanced Poppet Standard
- Solid Control Piston for Extended Life
- Space Saving Package offers both Filter and Regulator features in One Integral Unit
- Non-rising Adjustment Knob
- Two Full Flow 1/8" Gauge Ports

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.



Dimensions

Model	Inches (mm)	A	B	C	D	D†	E	E†	F
Standard Unit B03-XX-XXXX		1.62 (41)	1.58 (40)	2.42 (61)	3.79 (96)	3.64 (92)	6.21 (158)	6.06 (154)	1.60 (41)

† With Piston Drain

Specifications

Flow Capacity*	1/8	16 SCFM (7.5 dm³/s)
	1/4	18 SCFM (8.5 dm³/s)
Gauge Ports (2)	1/8 Inch	
Port Threads	1/8, 1/4 Inch	
Pressure & Temperature Ratings –		
Plastic Bowl	0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)	
Metal Bowl	0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)	
Secondary Pressure Ranges –		
Standard Pressure	2 to 125 PSIG (0 to 8.6 bar)	
Medium Pressure	1 to 60 PSIG (0 to 4.1 bar)	
Medium Pressure	1 to 30 PSIG (0 to 2.1 bar)	
Low Pressure	1 to 15 PSIG (0 to 1.0 bar)	
Weight	.4 lb. (.18 kg)	

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar). and 10 PSIG pressure drop.

Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Knob, Seat, Piston, Holder & Deflector	Plastic
Bowls – Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Filter Elements – 5 Micron (Standard)	Plastic
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals	Nitrile

 = "Most Popular"

Replacement Kits

Filter Element Kit, 5 MicronPS403

Metal Bowl –

Piston DrainPS451B

Manual DrainPS447B

Poly Bowl –

Piston DrainPS408B

Manual DrainPS404

Poppet / Piston Kits –

Unbalanced, Non-RelievingPS428P

Unbalanced, RelievingPS426P

Accessories

Gauge, Pressure –

30 PSIG (0 to 2.1 bar).....K4515N18030

60 PSIG (0 to 4.1 bar).....K4515N18060

160 PSIG (0 to 11.0 bar) K4515N18160

Mounting Bracket Kit* (Includes Panel Mount Nut) PS417B

Panel Mount Nut* –

Plastic P78652

MetalP01531

Springs –

1 to 15 PSIG RangeP01176

1 to 30 PSIG RangeP01175

1 to 60 PSIG RangeP01174

2 to 125 PSIG Range.....P01173

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

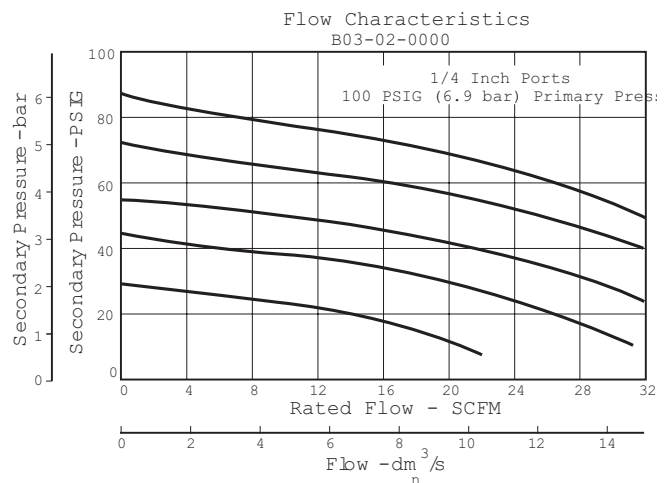
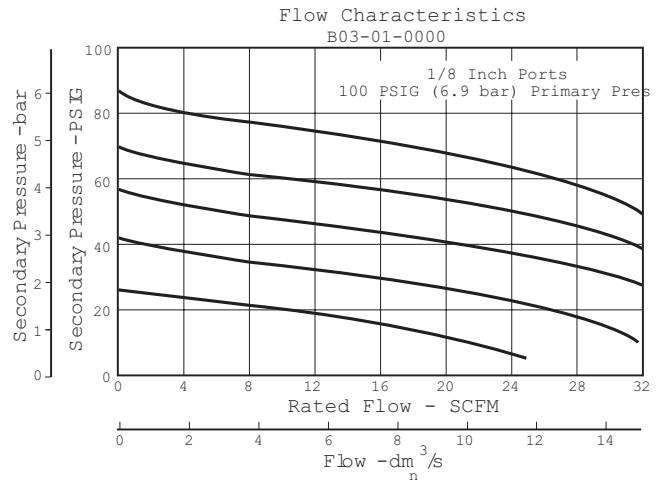
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl	Metal Bowl
Manual Drain	1/8	B03-01-0000	B03-01-M000
	1/4	B03-02-0000	B03-02-M000

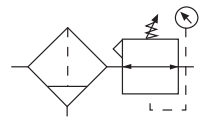
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.



Miniature Filter / Regulator

BB3 – Brass

BA3 – Aluminum

 = "Most Popular"
**BB3-02-FK00**

Features

- Brass Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Plastic Bowl or Black Painted Zinc Metal Bowl
- High Flow: 1/4" -16 SCFM
- Fluorocarbon Seals Optional

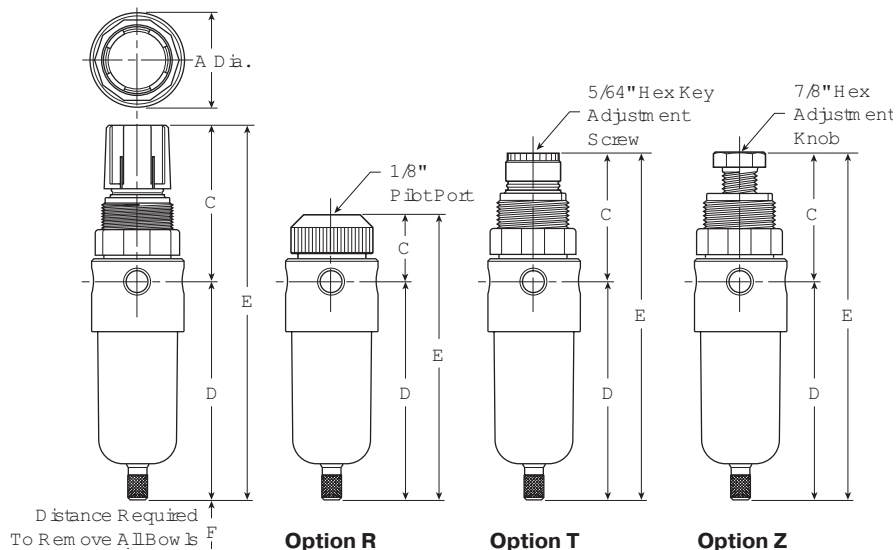
Specifications

Flow Capacity*	1/4	16 SCFM (7.6 dm ³ /s)
Maximum Supply Pressure		
Polycarbonate Bowl		150 PSIG (10.37 bar)
Metal Bowl		300 PSIG (20.7 bar)
Operating Temperature	40°F to 125°F (4.4°C to 52°C)	
Port Size	NPT / BSPP-G	1/8, 1/4
Standard Filtration	5 Micron	
Weight	0.8 lb. (0.36 kg)	

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 75 PSIG (5.2 bar).

Materials of Construction

Body	Brass	
Bowls	Polycarbonate or Zinc - Painted Black	
Manual Drain	Brass	
Diaphragm and Seals	Nitrile	
Element Holder / Deflector / Bonnet	Acetal	
Filter Elements	Type A	Polyethylene
Knob	Acetal	
Springs	Plated Steel	
Valve Assembly and Bottom Plug	Brass	



NOTES: Panel Nut included, but not shown on dimensional drawing.
1.19" dia. (30,2) mm hole required for panel mounting.

Dimensions

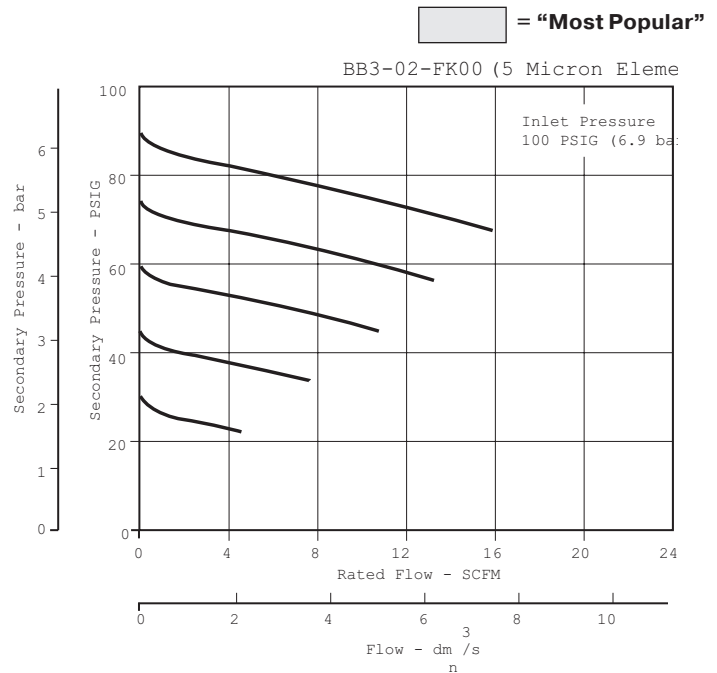
Model	Inches (mm)	A	C	C			D	E	E			F
				Option R	Option T	Option Z			Option R	Option T	Option Z	
Standard Unit - Brass Body BB3-02-XXXX		1.56 (40)	2.63 (67)	1.09 (27.7)	2.04 (51.8)	2.08 (52.8)	3.63 (92)	6.25 (159)	4.72 (119.9)	5.67 (144.0)	5.71 (145.0)	1.58 (40)
Standard Unit - Aluminum Body BA3-02-XXXX		1.56 (40)	2.63 (67)	1.09 (27.7)	2.04 (51.8)	2.08 (52.8)	3.63 (92)	6.25 (159)	4.72 (119.9)	5.67 (144.0)	5.71 (145.0)	1.58 (40)

Replacement Element and Repair Kits

5 Micron Element	FRP-96-806
Bonnet, Knob, Adjusting Screw Kit	RRP-96-821
Bonnet, Tamper Resistant Adjustment Kit	RRP-96-822
Diaphragm and Valve Repair Kit –	
Relieving	RRP-96-819
Non-Relieving	RRP-96-820
Plastic Bowl –	
No Guard, Manual Twist Drain	GRP-96-808
No Guard, Piston Drain	GRP-96-809
Metal Bowl –	
Manual Twist Drain	GRP-96-810
Piston Drain	GRP-96-811

Accessories

Gauge, Pressure –	
0 to 60 PSI (0 to 4.1 bar), 1-1/2" Dial Face,	
1/8" NPT	K4515N18060
0 to 160 PSI (0 to 11.0 bar), 1-1/2" Dial Face,	
1/8" NPT, CBM	K4515N18160
Manual Drain	GRP-96-812
Piston Type Drain	GRP-96-813
Panel Mount Nut –	
Aluminum	RPA-96-733
Plastic	RPA-96-734
Wall Mounting Bracket –	
L-Type	GRP-95-147
L-Type with Plastic Panel Mount Nut	GRP-95-747



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

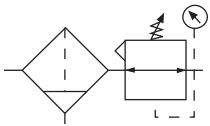
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Relieving 2 to 125 PSI (0.14 to 8.6 bar) No Bowl Guard	Relieving 1 to 60 PSI (0.07 to 4.1 bar) No Bowl Guard	Relieving 1 to 25 PSI (0.07 to 1.7 bar) No Bowl Guard	Relieving 2 to 125 PSI (0.14 to 8.6 bar) Metal Bowl	Relieving 1 to 60 PSI (0.07 to 4.1 bar) Metal Bowl	Relieving 1 to 25 PSI (0.07 to 1.7 bar) Metal Bowl
Manual Drain	1/8"	BB3-01-FK00	BB3-01-DK00	BB3-01-CK00	BB3-01-FL00	BB3-01-DL00	BB3-01-CL00
	1/4"	BB3-02-FK00	BB3-02-DK00	BB3-02-CK00	BB3-02-FL00	BB3-02-DL00	BB3-02-CL00
Piston Drain	1/8"	BB3-01-FR00	BB3-01-DR00	BB3-01-CR00	BB3-01-FS00	BB3-01-DS00	BB3-01-CS00
	1/4"	BB3-02-FR00	BB3-02-DR00	BB3-02-CR00	BB3-02-FS00	BB3-02-DS00	BB3-02-CS00
Manual Drain	1/8"	BA3-01-FK00	BA3-01-DK00	BA3-01-CK00	BA3-01-FL00	BA3-01-DL00	BA3-01-CL00
	1/4"	BA3-02-FK00	BA3-02-DK00	BA3-02-CK00	BA3-02-FL00	BA3-02-DL00	BA3-02-CL00
Piston Drain	1/8"	BA3-01-FR00	BA3-01-DR00	BA3-01-CR00	BA3-01-FS00	BA3-01-DS00	BA3-01-CS00
	1/4"	BA3-02-FR00	BA3-02-DR00	BA3-02-CR00	BA3-02-FS00	BA3-02-DS00	BA3-02-CS00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator B08



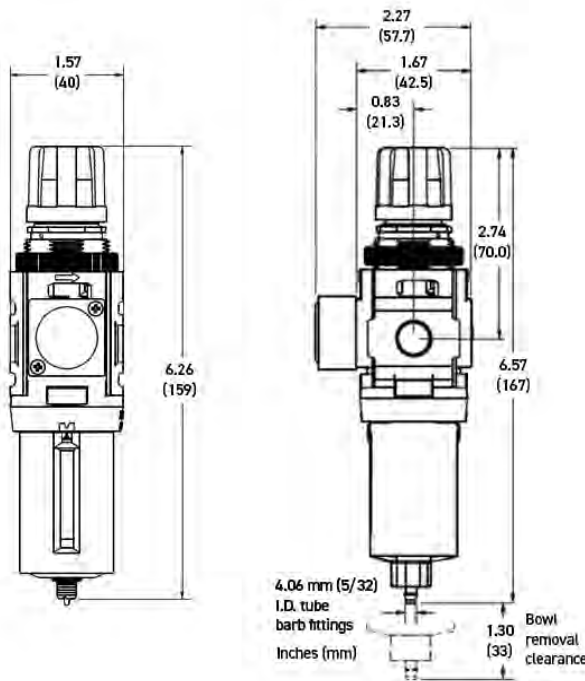
Features

- Space-Saving Integral Filter / Regulator Design
- Unique Flush-mounted Pressure Gauge Available
- Balanced Valve Design
- Modern Design and Appearance
- Light Weight
- High Flow Capacities
- Quick-Disconnect Bowl / Bowl Guard



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**



Automatic Piston
Drain

Manual Drain

Inches (mm)

Specifications

Flow Capacity*	1/4	73 SCFM (35 dm ³ /s, ANR)
Adjusting Range		0 to 30 PSIG (0 to 2 bar)
Pressure		0 to 60 PSIG (0 to 4 bar)
		0 to 125 PSIG (0 to 8 bar)
		0 to 232 PSIG (0 to 16 bar)
Gauge Ports (2)**	NPT	1/8
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature†	Plastic Bowl	14° to 125°F (-10° to 52°C)
	Metal Bowl	14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Bowl Capacity		0.4 oz
Standard Filtration		5 Micron
Weight		0.42 lb. (0.19 kg)

* Inlet pressure 145 psig (10 bar). Secondary pressure 100 psig (6.9 bar) and 14.5 psig (1 bar) pressure drop.

† Units with square gauges: 5°F to 150°F (-15°C to 65.5°C)

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Air quality: Within ISO 8573-1: 1991 Class 3 (Particulates)
Within ISO 8573-1: 2001 Class 6 (Particulates)

Gauge supplied with every part. Gauge can be installed on the front or back of the regulator. If no gauge is installed, both seal screws must be installed.

Materials of Construction

Adjustment Knob		Acetal
Body		Aluminum
Bottom Cap		Glass-filled Nylon
Bonnet		Glass-filled Nylon
Bowl	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard		Nylon
Diaphragm Assembly		Stainless Steel / Nitrile
Filter Element		Polyethylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Springs		Steel
Valve Assembly		Acetal / Nitrile

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Accessories

Automatic Piston Drain..... GRP-96-716

Panel Mount Nut –

AluminumRPA-96-773

PlasticRPA-96-734

Pressure Gauge– (*see note below)

Square flush mount gauge

0-4 bar..... GRP-96-791-04B

0-11 bar..... GRP-96-792-11B

0-20 bar..... GRP-96-791-20B

0-60 PSIG..... GRP-96-791-060

0-160 PSIG..... GRP-96-791-160

0-290 PSIG..... GRP-96-791-290

*For B08 Filter Regulators with date code after November 2023 (4423 Date Code), please use these part numbers when ordering a replacement gauge.

Square flush mount gauge

0-4 bar.....K4511SCR04B

0-11 bar.....K4511SCR11B

0-60 PSIG..... K4511SCR060

0-160 PSIG..... K4511SCR160

Square with adapter kit

0-4 bar.....P6G-PR10040

0-11 bar.....P6G-PR10110

0-60 PSIG.....P6G-PR90060

0-160 PSIG.....P6G-PR90160

50mm (2") round 1/4" center back mount

0-30 PSIG / 0-2 bar..... K4520N14030

0-60 PSIG / 0-4 bar..... K4520N14060

0-160 PSIG / 0-11 bar..... K4520N14160

0-300 PSIG / 0-20 bar..... K4520N14300

1-3/4" Digital Round 1/4" NPT

0 to 160 PSIG K4517N14160D

Tamperproof Lock and Cover Kit

(lock not included)..... RPA-96-736B

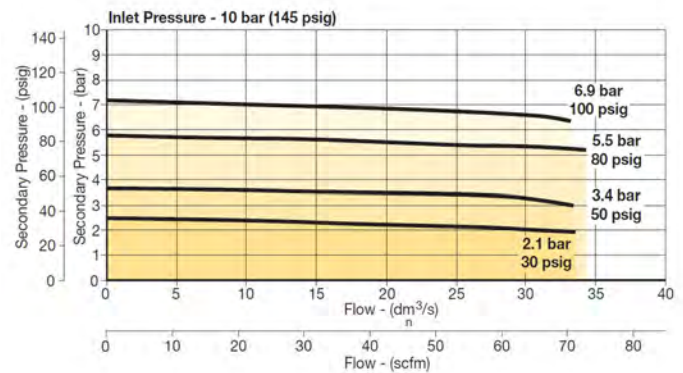
Wall Mounting Bracket –

C-Type.....GPA-97-010

L-Type..... GPA-96-739

T-Type GPA-96-737

B08 1/4" Regulator



Replacement Bowl Kits

Metal Bowl, Manual Drain GRP-96-714

Plastic Bowl / Bowl Guard, Manual Drain..... GRP-96-712

Replacement Element Kit

Type "A", 5 Micron.....FRP-96-729

Replacement Kits

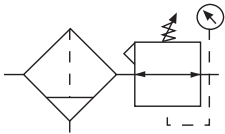
Adjusting Knob..... GRP-96-792

Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / Manual Drain / With Gauge 0 to 125 PSIG (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / Manual Drain / With Gauge 0 to 30 PSIG (0 to 2.0 bar)	Plastic Bowl / Bowl Guard / Automatic Piston / With Gauge 0 to 125 PSIG (0 to 8.6 bar)
Relieving	1/4	B08-02-FKG0B	B08-02-CKG0B	B08-02-FRG0B
Non-relieving	1/4	B08-02-RKG0B	B08-02-PKG0B	B08-02-RRG0B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator B18

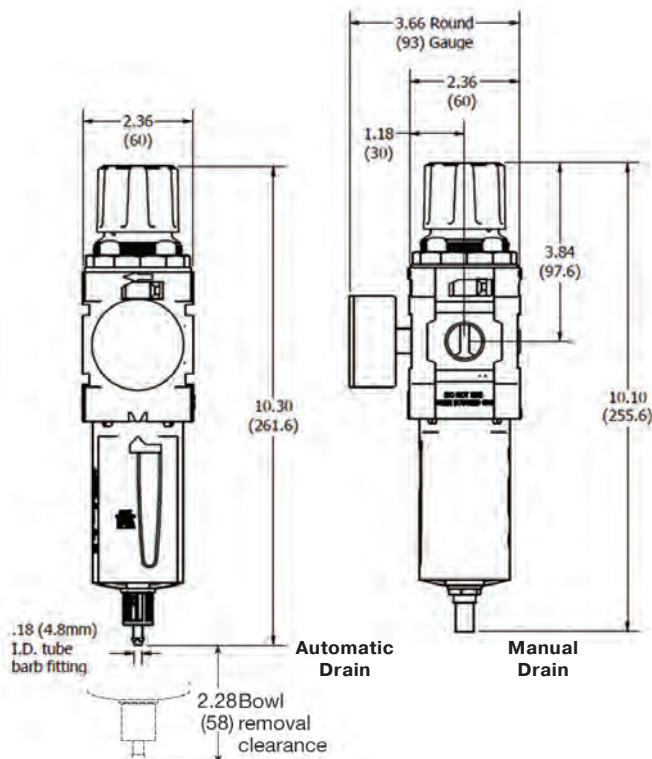


Features

- 5 Micron Filtration
- Balanced Valve Design
- Spring Loaded Diaphragm
- 1/2" NPT / BSPP-G Over-Ported
- Quick-Disconnect Bowl / Bowl Guard
- Light Weight
- High Flow Capacities

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**



Inches (mm)

Specifications

Flow Capacity*	1/4	166 SCFM (78 dm ³ /s, ANR)
	3/8, 1/2	178 SCFM (84 dm ³ /s, ANR)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2 bar)
		0 to 60 PSIG (0 to 4 bar)
		0 to 125 PSIG (0 to 8 bar)
		0 to 250 PSIG (0 to 17 bar)
Gauge Port (2)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Bowl Capacity		1.72 oz
Standard Filtration		5 Micron
Weight		1.37 lb. (0.62 kg)

* Inlet pressure 145 psig (10 bar). Secondary pressure 80 psig (5.5 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Air quality: Within ISO 8573-1: 1991 Class 3 (Particulates)
Within ISO 8573-1: 2001 Class 6 (Particulates)

Materials of Construction

Adjustment Knob		Acetal
Body		Aluminum
Body Cap		ABS
Bowl	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Bowl Guard		Nylon
Diaphragm Assembly		Nitrile / Stainless Steel
Element Retainer / Baffle		Acetal
Filter Element		Sintered Polyethylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating / Valve	Steel / S.S.
Valve Assembly		Acetal / Nitrile

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

 = "Most Popular"

Replacement Bowl Kits

Metal Bowl –

- Sight Gauge, Automatic Drain GRP-96-637
Sight Gauge, Manual Drain GRP-96-636

Plastic Bowl –

- Bowl Guard, Automatic Drain GRP-96-635
Bowl Guard, Manual Drain GRP-96-634

Replacement Element Kits

- Type "A", 5 Micron FRP-96-639
Retainer, Deflector, and Element Kit FRP-96-641

Replacement Kits

- Adjusting Knob RRP-96-655

Spring, Regulating –

- 0 to 30 PSIG (0 to 2.1 bar) RRP-96-659B
0 to 60 PSIG (0 to 4.1 bar) RRP-96-660B
0 to 125 PSIG (0 to 8.6 bar) RRP-96-661B
0 to 250 PSIG (0 to 17.2 bar) RRP-96-662B

Accessories

Automatic Drain –

- Fluorocarbon GRP-95-981
Nitrile GRP-95-973

- Drain, Manual Override GRP-96-001

- Manual Drain GRP-96-685

Panel Mount Nut –

- Aluminum RRP-96-673
Plastic RRP-96-675B

Gauge, Pressure –

- 50mm (2") round 1/4" center back mount
0-30 PSIG / 0-2 bar K4520N14030
0-60 PSIG / 0-4 bar K4520N14060
0-160 PSIG / 0-11 bar K4520N14160
0-300 PSIG / 0-20 bar K4520N14300

- 0 to 160 PSIG, 1-3/4" Digital Round,
1/4" NPT K4517N14160D

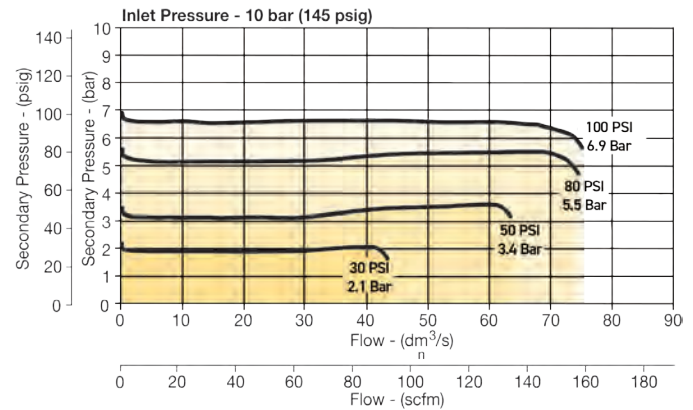
- Tamperproof Lock & Cover Kit RPA-96-737B

- Sight Gauge Kit GRP-96-825

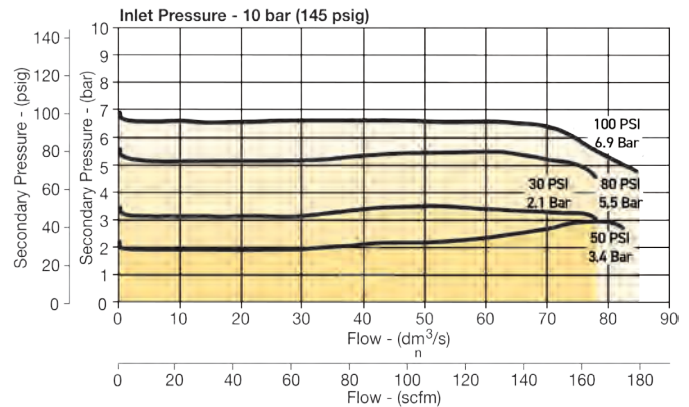
Wall Mounting Bracket

- L-Type (Body) GPA-96-604
L-Type (Bonnet) GPA-96-606
T-Type GPA-96-602

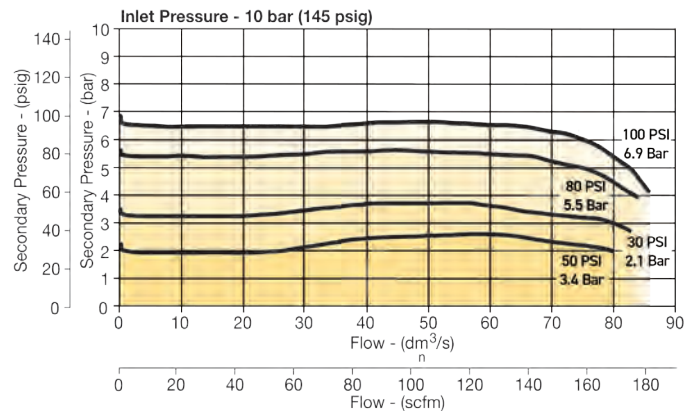
B18 1/4" Regulator



B18 3/8" Regulator



B18 1/2" Regulator

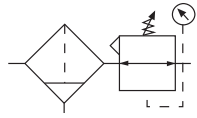


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Metal Bowl / Sight Gauge With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)
Manual Drain	1/4	B18-02-FKG0B	B18-02-FLG0B
	3/8	B18-03-FKG0B	B18-03-FLG0B
	1/2	B18-04-FKG0B	B18-04-FLG0B
Automatic Drain	1/4	B18-02-FGG0B	B18-02-FHG0B
	3/8	B18-03-FGG0B	B18-03-FHG0B
	1/2	B18-04-FGG0B	B18-04-FHG0B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator CB6



CB6-02-000

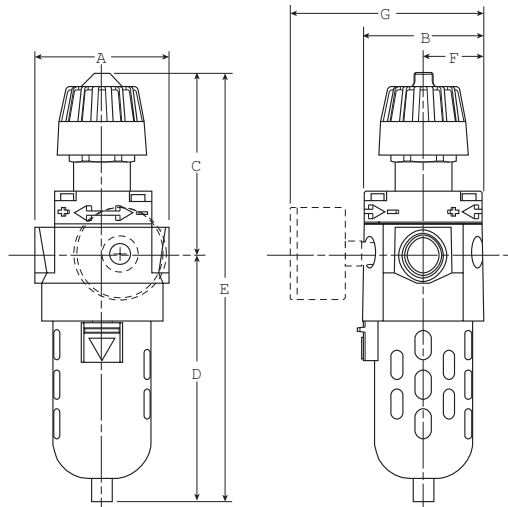
Features

- 5 Micron Filtration
- Balanced Valve
- Manual Flex Drain
- Integral Plastic Bowl / Bowl Guard
- Quick-Disconnect Bowl



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**



NOTE: 1.31" Dia. (33.3 mm) hole required for panel nut mounting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit CB6-XX-000		3.00 (76)	2.64 (67)	3.95 (100)	5.43 (137.9)	9.38 (238)	1.34 (34)	4.18 (106)
Automatic Drain CB6-XX-F00		3.00 (76)	2.64 (67)	3.95 (100)	5.55 (140.9)	9.50 (241)	1.34 (34)	4.18 (106)
Metal Bowl CB6-XX-M00		3.00 (76)	2.64 (67)	3.95 (100)	6.05 (153.7)	10.00 (254)	1.34 (34)	4.18 (106)
Metal Bowl with Sight Gauge CB6-XX-G00		3.00 (76)	2.64 (67)	3.95 (100)	6.15 (156)	10.10 (256.5)	1.34 (34)	4.18 (106)

Specifications

Flow Capacity*	1/4	64.0 SCFM (30.2 dm ³ /s)
	3/8	70.0 SCFM (33.0 dm ³ /s)
	1/2	70.0 SCFM (33.0 dm ³ /s)
Adjusting Range Pressure		0 to 50 PSIG (0 to 3.5 bar) 0 to 125 PSIG (0 to 8.6 bar)
Gauge Port (2)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	200 PSIG (13.8 bar)
Operating Temperature	Plastic Bowl	32° to 125°F (0° to 52°C)
	Metal Bowl	32° to 150°F (0° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration	5 Micron	
Weight	2.4 lb. (1.1 kg)	

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

“F” Series Filters, Type “A” 5 Micron Elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Zinc	
Bonnet, Knob	PBT	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Zinc
Diaphragm	Nitrile / Zinc	
Filter Element	Polyethylene	
Panel Nut	Acetal	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Fluorocarbon
Stem, Element Retainer and Deflector	Acetal	
Springs	Steel	
Valve Assembly	Brass / Nitrile	

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

 = "Most Popular"

Replacement Bowl Kits

Metal Bowl –	
Automatic Float Drain	FRP-95-950
Brass Petcock Drain	FRP-95-178
Metal Bowl / Sight Gauge, Brass Petcock Drain ..	
GRP-95-133	
Plastic Bowl, Flex Tip Drain	FRP-95-017
Plastic Bowl / Bowl Guard –	
Automatic Float Drain	FRP-95-015
Flex Top Drain	FRP-95-014

Replacement Element Kits

Type "A", 5 Micron w/ Nitrile Bowl O-Ring	FRP-95-160
---	------------

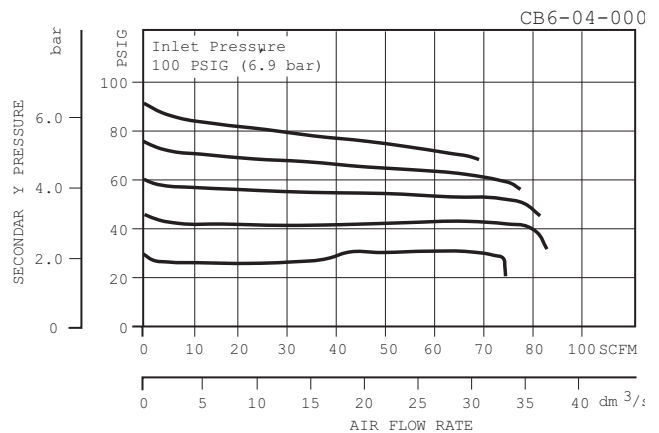
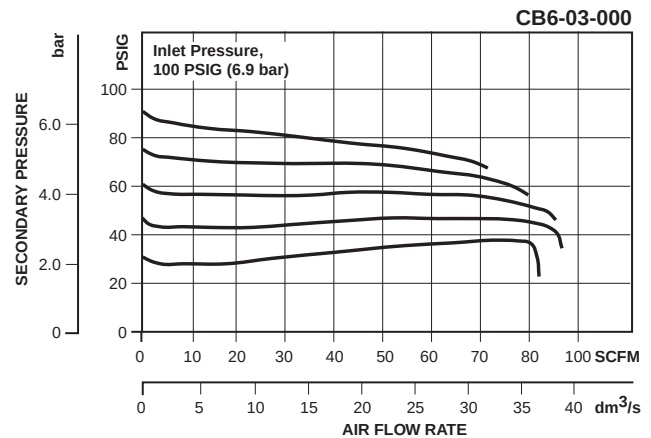
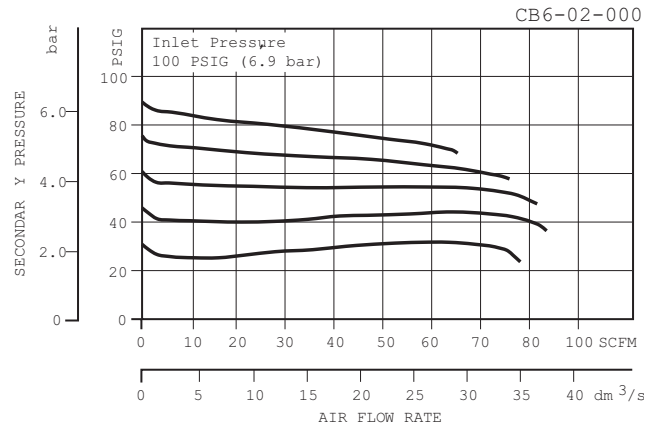
Replacement Kits

Diaphragm Assembly –	
Non-relieving	RRP-96-216
Self-relieving	RRP-96-213
Spring, Regulating –	
0 to 50 PSIG (0 to 3.4 bar) Blue Color	RRP-95-222
0 to 125 PSIG (0 to 8.5 bar) Silver Color	RRP-95-224

Accessories

Automatic Mech. Drain, 1/8" NPT –	
Fluorocarbon	GRP-95-981
Nitrile	GRP-95-973
Manual Flex Tip Drain	FRP-95-610
Wall Mounting Bracket –	
Gauge Port Adapter, 1/4" NPT	RRP-95-590
L-Type	GPA-95-012
Drain, Manual Override for	
Auto Float Drain, 1/8 NPT	GRP-96-000
Gauge, Pressure, 2" Dial Face, 1/4" NPT CBM –	
0 to 60 PSIG (0 to 4.1 bar)	K4520N14060W
0 to 160 PSIG (0 to 11.0 bar)	K4520N14160W
0 to 300 PSIG (0 to 21 bar)	K4520N14300W
0 to 160 PSIG, 1-3/4" Digital Round, 1/4" NPT ..	K4517N14160D
Panel Nut, Plastic	GPA-95-032
Tamper Resistant Kit	RPA-95-006

NOTE: Gauge not included, order separately by accessory number.

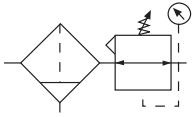


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard 0 to 125 PSIG (0 to 8.6 bar)	Metal Bowl 0 to 125 PSIG (0 to 8.6 bar)	Metal Bowl w/ Sight Gauge 0 to 125 PSIG (0 to 8.6 bar)	Metal Bowl Low Pressure 0 to 50 PSIG (0 to 3.4 bar)
Manual Drain	1/4	CB6-02-000	CB6-02-M00	CB6-02-G00	CB6-02-LM0
	3/8	CB6-03-000	CB6-03-M00	CB6-03-G00	CB6-03-LM0
	1/2	CB6-04-000	CB6-04-M00	CB6-04-G00	CB6-04-LM0
Automatic Drain	1/4	CB6-02-F00	CB6-02-FM0	CB6-02-FG0	CB6-02-FLM
	3/8	CB6-03-F00	CB6-03-FM0	CB6-03-FG0	CB6-03-FLM
	1/2	CB6-04-F00	CB6-04-FM0	CB6-04-FG0	CB6-04-FLM

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Precision Filter / Regulator PC6



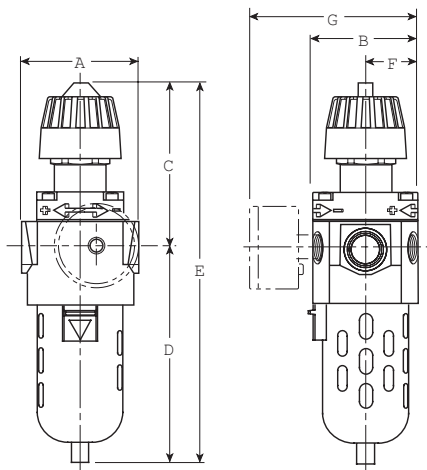
PC6-02-000

Precision Filter / Regulator

The PC6 models are general purpose regulators specifically designed for applications that require reliable performance and accurate pressure control.

Features

- **Stable Output** – Aspirator Design Minimizes “Droop” at Higher Flow Levels
- **Accuracy** – High Diaphragm-to-Valve-Area Ratio Combined with Unbalanced Valve Provides High Precision with Minimal Initial Pressure Droop
- **Quality Air** – 5 Micron Filtration for Superior Protection of Critical Downstream Equipment
- **Easy Maintenance** – May be Disassembled and Serviced without Removal from Air Line
- **Competitive** – Compact, Integral Filter / Regulator Can be Used Where Limited Space or Lower Cost is Required



NOTE: 1.31" Dia. (33.3 mm) hole required for panel nut mounting.

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit PC6-XX-000		3.00 (76)	2.64 (67)	3.95 (100)	5.43 (137.9)	9.38 (238)	1.34 (34)	4.18 (106)
Automatic Drain PC6-XX-F00		3.00 (76)	2.64 (67)	3.95 (100)	5.55 (140.9)	9.50 (241)	1.34 (34)	4.18 (106)
Automatic Drain PC6-XX-G00		3.00 (76)	2.64 (67)	3.95 (100)	6.15 (156)	10.10 (256.5)	1.34 (34)	4.18 (106)

Specifications

Flow Capacity*	PC6	19.0 SCFM (9.0 dm ³ /s)
Gauge Port (2)	NPT / BSPT-Rc	1/4
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 200 PSIG (13.8 bar)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Operating Temperature	Plastic Bowl Metal Bowl	32° to 125°F (0° to 52°C) 32° to 150°F (0° to 65.5°C)
Weight		2.4 lb. (1.1 kg)

* Inlet pressure 100 PSIG (6.9 bar).

Secondary pressure PC6, 45 PSIG (3.1 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Zinc
Bonnet, Knob		PBT
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Zinc
Diaphragm		Nitrile / Zinc
Filter Element		Polypropylene
Panel Nut		Acetal
Seals	Plastic Bowl	Nitrile
Springs		Steel
Stem, Element Retainer and Deflector		Acetal
Valve Assembly		Brass / Nitrile

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= "Most Popular"

Replacement Bowl Kits

Metal Bowl –

Automatic Drain PRP-96-006

Manual Drain PRP-95-070

Metal Bowl / Sight Gauge, Brass Petcock Drain .. PRP-95-071

Plastic Bowl, FlexTip Drain FRP-95-017

Plastic Bowl / Bowl Guard –

Automatic Drain FRP-95-015

FlexTip Drain FRP-95-014

Replacement Element Kits

Type "A", 5 Micron..... FRP-95-160

Replacement Kits

Diaphragm Assembly –

Non-relieving, Nitrile..... PRP-95-055

Self-relieving, Nitrile PRP-95-025

Spring, Regulating –

0 to 15 PSIG (1 bar) RRP-95-233

0 to 30 PSIG (2,1 bar)..... RRP-95-916

0 to 50 PSIG (0 to 3,4 bar) RRP-95-222

0 to 125 PSIG (0 to 8,5 bar) RRP-95-224

Accessories

Automatic Mechanical Drain

1/8 NPT, Fluorocarbon..... GRP-95-981

1/8 NPT, Nitrile GRP-95-973

Drain, Manual Override for

Auto Float Drain, 1/8 NPT..... GRP-96-000

FlexTip Drain FRP-95-610

Gauge, Pressure, 2" Dial Face, 1/4 NPT, CBM –

0 to 30 PSIG (0 to 2,1 bar) K4520N14030W

0 to 60 PSIG (0 to 4 bar)..... K4520N14060W

0 to 120 PSIG (0 to 8,3 bar) K4520N14160W

0 to 160 PSIG, 1-3/4" Digital Round, 1/4" NPT. K4517N14160D

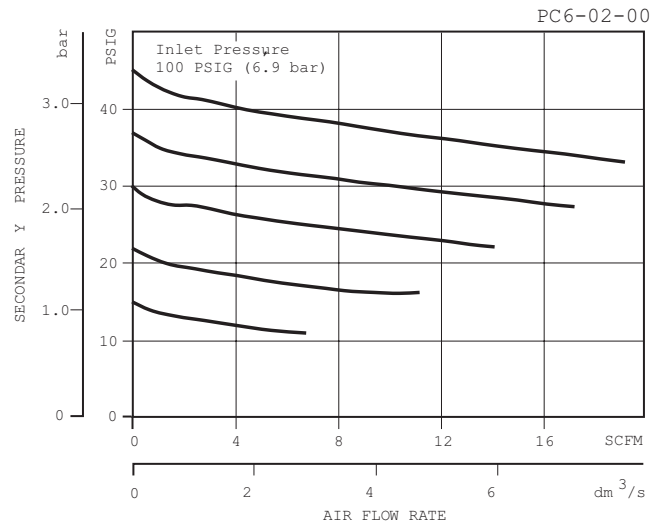
Panel Nut, Plastic GPA-95-032

Tamper Resistant Kit..... RPA-95-006

Wall Mounting Bracket –

Gauge Port Adapter, 1/4 NPT RRP-95-590

L-Type w/Panel Mount Nut GPA-95-011

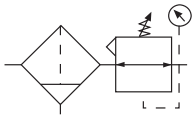


Ordering Information

Model Type	Port Size	Standard Unit 0 to 50 PSIG (0 to 3.4 bar)	Automatic Mechanical Drain	Sight Gauge	High Pressure 0 to 125 PSIG (0 to 8.6 bar)	Low Pressure 0 to 30 PSIG (0 to 2.1 bar)	Metal Bowl	Fluorocarbon Seals
Relieving	1/4	PC6-02-000	PC6-02-F00	PC6-02-G00	PC6-02-H00	PC6-02-L00	PC6-02-M00	PC6-02-V00
	3/8	PC6-03-000	PC6-03-F00	PC6-03-G00	PC6-03-H00	PC6-03-L00	PC6-03-M00	PC6-03-V00
	1/2	PC6-04-000	PC6-04-F00	PC6-04-G00	PC6-04-H00	PC6-04-L00	PC6-04-M00	PC6-04-V00
Non-relieving	1/4	PC6-02-N00	PC6-02-FN0	PC6-02-GN0	PC6-02-HN0	PC6-02-LN0	PC6-02-MN0	PC6-02-VN0
	3/8	PC6-03-N00	PC6-03-FN0	PC6-03-GN0	PC6-03-HN0	PC6-03-LN0	PC6-03-MN0	PC6-03-VN0
	1/2	PC6-04-N00	PC6-04-FN0	PC6-04-GN0	PC6-04-HN0	PC6-04-LN0	PC6-04-MN0	PC6-04-VN0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator B28

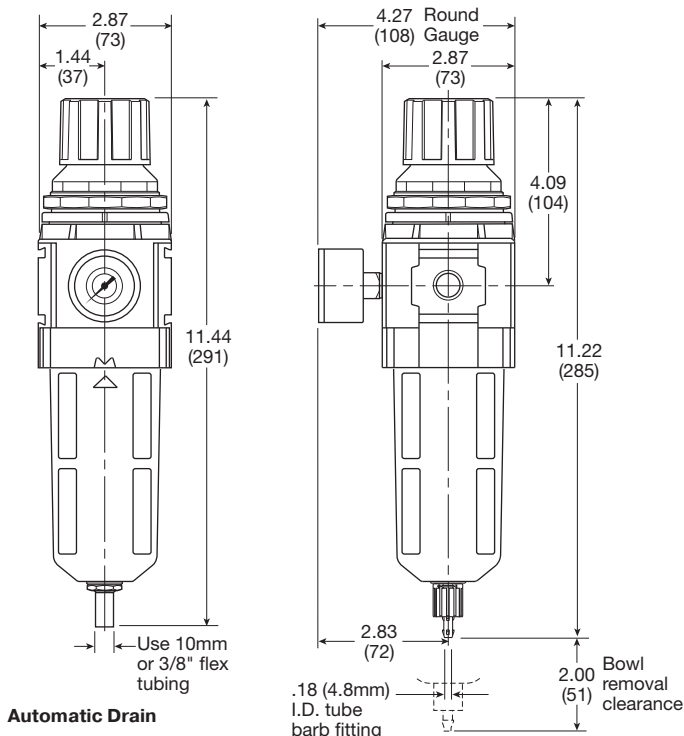


Features

- 5 Micron Filtration
- Balanced Valve Design
- Spring Loaded Diaphragm
- 3/4" NPT / BSPP-G Over-Ported
- Quick-Disconnect Bowl / Bowl Guard
- Light Weight
- High Flow Capacities

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**



Inches (mm)

Manual Drain

Specifications

Flow Capacity*	3/8	200 SCFM (94 dm ³ /s, ANR)
	1/2	200 SCFM (94 dm ³ /s, ANR)
	3/4	235 SCFM (109 dm ³ /s, ANR)
Adjusting Range Pressure		0 to 30 PSIG (0 to 2.1 bar)
		0 to 60 PSIG (0 to 4.1 bar)
		0 to 125 PSIG (0 to 8.6 bar)
		0 to 250 PSIG (0 to 17.2 bar)
Gauge Port (2)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	3/8, 1/2, 3/4
Bowl Capacity		2.87 oz
Standard Filtration		5 Micron
Weight		1.87 lb. (0.85 kg)

* Inlet pressure 145 psig (10 bar). Secondary pressure 91.3 psig (6.3 bar) and 14.5 psig (1 bar) pressure drop.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Air quality: Within ISO 8573-1: 1991 Class 3 (Particulates)
Within ISO 8573-1: 2001 Class 6 (Particulates)

Materials of Construction

Adjustment Knob	Acetal	
Body	Aluminum	
Body Cap	ABS	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly	Nitrile / Zinc	
Element Retainer / Baffle	Acetal	
Filter Element	Sintered Polyethylene	
Panel Nut	Acetal	
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating / Valve	Steel / S.S.
Valve Assembly	Brass / Nitrile	

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

 = "Most Popular"

Replacement Bowl Kits

Metal Bowl –

- Sight Gauge, Automatic Drain GRP-96-645
Sight Gauge, Manual Drain GRP-96-644

Plastic Bowl –

- Bowl Guard, Automatic Drain GRP-96-643
Bowl Guard, Manual Drain GRP-96-642

Replacement Element Kits

- Type "A", 5 Micron FRP-96-653
Element, Deflector, Retainer kit FRP-96-283

Replacement Kits

- Adjusting Knob RRP-16-341-000
Diaphragm Assembly –
Non-relieving RRP-96-987
Relieving RRP-96-986

Spring, Regulating –

- 0 to 30 PSIG (0 to 2.1 bar) RRP-96-163
0 to 60 PSIG (0 to 4.1 bar) RRP-96-164
0 to 125 PSIG (0 to 8.6 bar) RRP-96-165
0 to 250 PSIG (0 to 17.2 bar) RRP-96-166

Valve Assembly RRP-96-049

Accessories

Automatic Drain –

- Fluorocarbon GRP-95-981
Nitrile GRP-95-973

Manual Drain GRP-96-685

Panel Mount Nut –

- Aluminum RRP-96-674
Plastic RRP-96-676

Gauge, Pressure –

- 50mm (2") round 1/4" center back mount
0-30 PSIG / 0-2 bar K4520N14030
0-60 PSIG / 0-4 bar K4520N14060
0-160 PSIG / 0-11 bar K4520N14160
0-300 PSIG / 0-20 bar K4520N14300
0 to 160 PSIG, 1-3/4" Digital Round,
1/4" NPT K4517N14160D

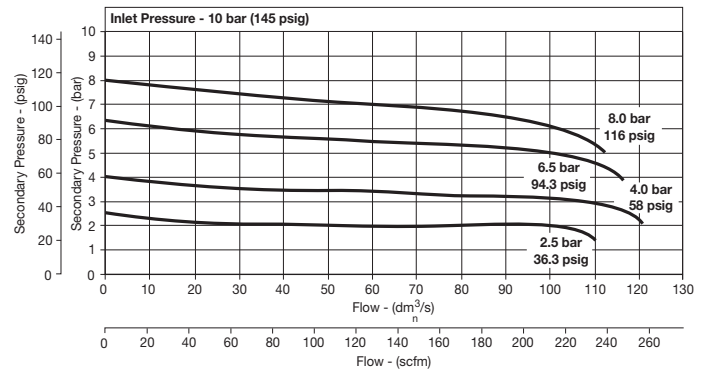
Tamper Resistant Kit RRP-96-672

Sight Gauge Kit GRP-96-825

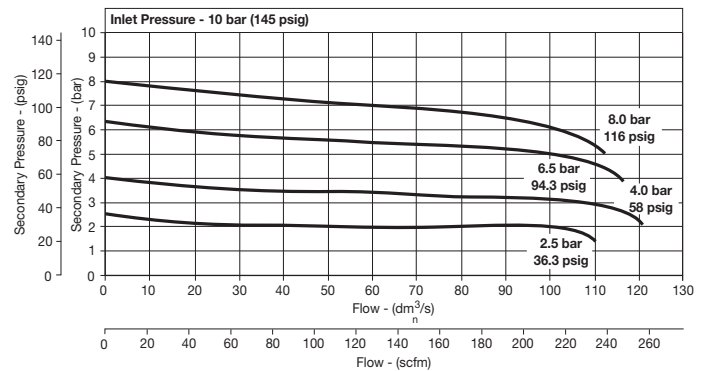
Wall Mounting Bracket –

- L-Type (Body) GPA-96-605
L-Type (Bonnet) GPA-96-607
T-Type GPA-96-602

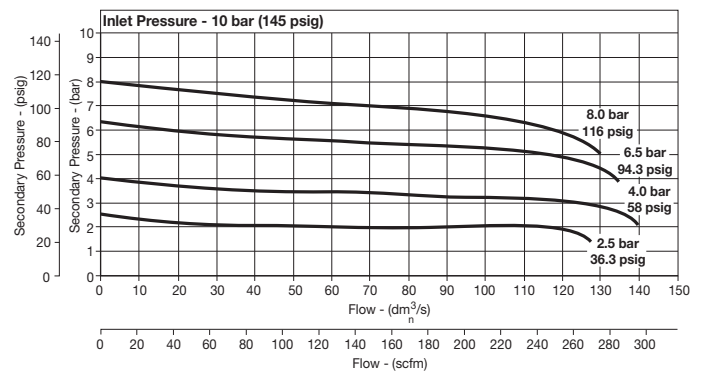
B28 3/8" Filter / Regulator



B28 1/2" Filter / Regulator



B18 3/8" Filter / Regulator



Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)	Metal Bowl / Sight Gauge With Gauge 5 to 125 PSIG (0.4 to 8.6 bar)
Manual Drain	3/8	B28-03-FKG0B	B28-03-FLG0B
	1/2	B28-04-FKG0B	B28-04-FLG0B
	3/4	B28-06-FKG0B	B28-06-FLG0B
Automatic Drain	3/8	B28-03-FGG0B	B28-03-FHG0B
	1/2	B28-04-FGG0B	B28-04-FHG0B
	3/4	B28-06-FGG0B	B28-06-FHG0B

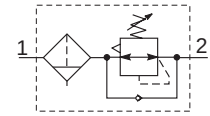
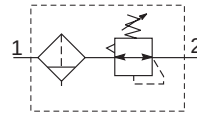
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator B90



 = "Most Popular"

Symbols



Features

- Integral 3/4" or 1" ports (BSPP or NPT)
- High efficiency element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Secondary pressure ranges 12 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Reverse flow / relieving option
- Low temperature -40° with combined manual / semi-auto drain as standard

B90	-	0		6	-	A	H	0	0
Series		Thread type*		Port size		Function / pressure range	Bowl / drain type	Option	
Filter / Regulator Combination	B90	NPT	0	3/4	6	Relieving / 0 to 174 PSI	H Metal bowl / sight gauge & auto drain	0	None
		BSPP	C	1	8	Relieving / 0 to 232 PSI	L Metal bowl / sight gauge / manual & semi auto drain	G	Pressure Gauge
								A†	Lockable type

Notes:

* For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

† Not field convertible.

Bold items are most common.

Ordering information

Port size	Description	Flow† scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Bowl capacity cm³ (oz)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number†
3/4"	12 bar, relieving, combined manual / semi auto drain	335	17.5 (254)	-40 (-40)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-06-AL00
3/4"	12 bar, relieving, auto drain	335	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-06-AH00
3/4"	12 bar, relieving, gauge, combined manual / semi auto drain	335	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-06-ALG0
3/4"	12 bar, relieving, gauge, auto drain	335	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-06-AHG0
1"	12 bar, relieving, combined manual / semi auto drain	465	17.5 (254)	-40 (-40)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-08-AL00
1"	12 bar, relieving, auto drain	465	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-08-AH00
1"	12 bar, relieving, gauge, combined manual / semi auto drain	465	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-08-ALG0
1"	12 bar, relieving, gauge, auto drain	465	17.5 (254)	-10 (14)	60 (140)	130 (4.4)	345 (13.5)	90 (3.5)	94 (3.7)	1.5 (3.3)	B90-08-AHG0

† **Standard part numbers shown in bold. For other models refer to Options chart above.**

† Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.4 psig) set pressure and 1 bar (14.5 psig) pressure drop.

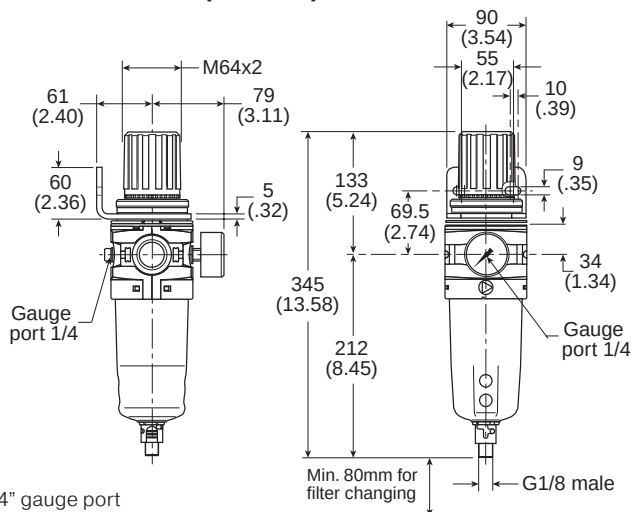
Lockable regulators will require key lock kit (opposite page).

Specifications

Fluid	Compressed air
Maximum inlet pressure*	17.5 bar (254 psig)
Temperature range*:	
Auto drain	-10°C to 60°C (14°F to 140°F)
Combined drain	-40°C to 60°C (-40°F to 140°F)
Particle removal	5 micron
Air quality	Within ISO 8573-1: 1991 Class 3 and 5 (particulates) Within ISO 8573-1: 2001 Class 6 and 7 (particulates)
Typical flow with 10 bar (145 psig) inlet pressure and 6.3 bar (91 psig) set pressure and 0.5 bar (7.3 psig) pressure drop	1" size 465 scfm
Manual / semi-auto drain	Closed at 0.8 bar (11.6 psig) G1/8 thread male
Auto drain bowl pressure to close drain	0.8 bar (11.6 psig)
Operating range manual override facility	0.8 bar (11.6 psig) to 17.5 bar (254 psig)
Bowl capacity	130 cm ³ (4.4 US oz)
Gauge ports (x2)	1/4"

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35.6°F).

Dimensions mm (inches)



* 1/4" gauge port

Service kits

5 micron element kit	P3YKA00ESE
Bowl kit	
Manual/semi auto drain (combined)	P3YKA00BSC
Auto drain	P3YKA00BSA
Key lock kit.....	P3XKA00AS
Diaphragm kit	
Relieving type	P3YKA00RR
Non-relieving type.....	P3YKA00RN
Angle bracket + metal lock ring	P3YKA00MS
Panel mount nut	P3YKA00MM

Material specifications

Body	Aluminum
Sight glass	Polypropylene
Body cover	ABS
Element	Sintered polypropylene
Seals	Nitrile NBR
Drains	Manual / semi-auto: Acetal
	Automatic: PA / Ø 10mm brass connection
Bonnet	Glass filled polyamide
Control knob	Glass filled polyamide
Valve	Brass / NBR
Screws	Steel / zinc plated

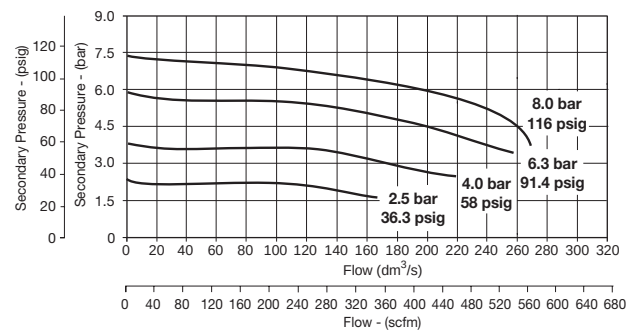
CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

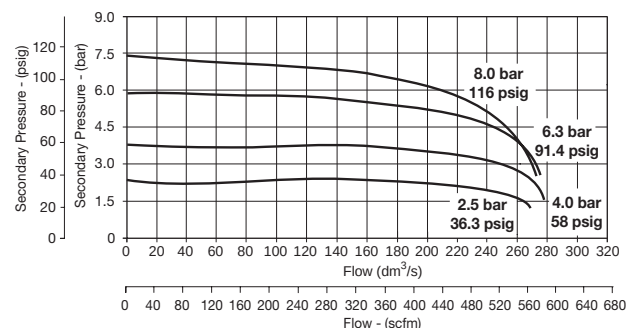
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Flow characteristics

(3/4") 5 Micron Filter / Regulator



(1") 5 Micron Filter / Regulator



Filter / Regulator-Lubricator Numbering System

= "Most Popular"

Unit Function

D

Unit Function

D FR + L

Family

03

Family

03 Miniature

Thread Type

0

Thread Type

0 NPT
C BSPP

Pipe Size

1

Pipe Size

1 1/8"
2 1/4"

Options

0

Options

0

Options

0

Options

0

Options

0 Standard

D Piston Drain

G* Pressure Gauge

L 1 to 60 PSI, Relieving

M Metal Bowl

N 2 to 125 PSI, Non-Relieving

P 1 to 30 PSI, Relieving

Q 1 to 15 PSI, Relieving

S 1 to 60 PSI, Non-Relieving

T 1 to 30 PSI, Non-Relieving

U 1 to 15 PSI, Non-Relieving

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8, and 9.
For example: **M 0 3 - 0 1 - D M 0 0**

NOTE: 0000 in position 6, 7, 8 and 9 signifies standard product.
(Poly Bowl, Manual Drain on Filter, no Drain on Lubricator, 2 to 125 PSIG, Relieving)

* Not available with BSPP thread type.

Unit Function

C

Unit Function / Family

CB7 FR+L Compact

Family

B

Thread Type

0

Thread Type

0 NPT
C BSPP

Pipe Size

3

Pipe Size

2 1/4
3 3/8"
4 1/2"

Options

0

Options

0

Options

0

Options

0 Standard

F Auto Drain

G Metal Bowl with Sight Gauge

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed** ISO Class 3 for maximum particle size and concentration of solid contaminants.

Note: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8.
For example: **C B7 - 0 3 - 0 0 0**

Unit function

Filter / Regulator + Lubricator

D90

Thread type*

NPT 0
BSPP C

Port size

3/4 6
1 8

Regulator function / pressure

A Relieving / 0-174 PSI

Bowl / drain type

H Metal bowl with sight gauge / auto drain
L Metal bowl with sight gauge / manual drain

Option

G Gauge

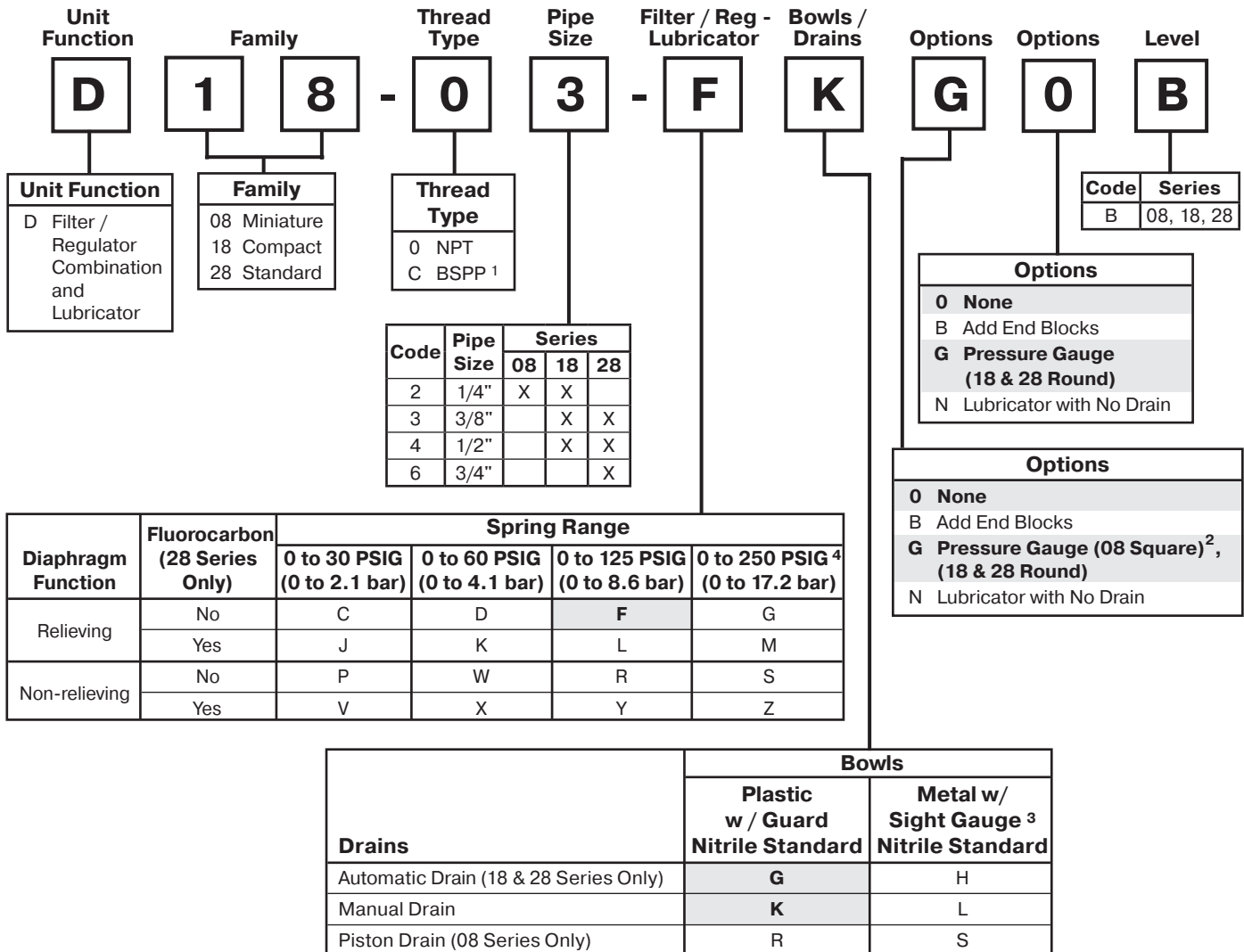
Option

M Mounting bracket

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Filter / Regulator-Lubricator Numbering System

 = "Most Popular"



¹ ISO, R228 (G Series)

² Square gauge included with all D08

³ 08 series has all metal bowl (no sight gauge)

⁴ 08 series operating range 0 to 232 PSIG (1 to 16 bar)

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, 9.
For example:

D 1 8 - 0 3 - F K G 0 B

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Note: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

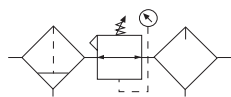
Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

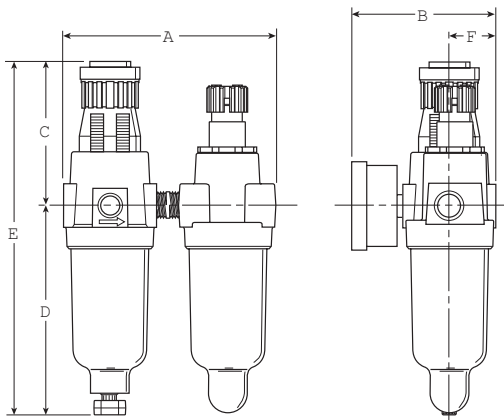
Combination D03



D03-02-0000

Features

- Excellent Water Removal Efficiency
- Unbalanced Poppet Standard
- Solid Control Piston for Extended Life
- Non-rising Adjustment Knob
- Two Full Flow 1/8" Gauge Ports
- Proportional Oil Delivery over a Wide Range of Air Flows
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Ideal for Low and Light flow Applications with Changing Air Flow
- Transparent Sight Dome for 360° Visibility



Dimensions

Model	Inches (mm)	A	B	C	D	E	F
Standard Unit D03-XX-XXXX		3.75 (95)	2.83 (71.9)	2.42 (61)	3.79 (96)	6.21 (158)	.79 (20)

Specifications

Flow Capacity*	1/8	20 SCFM (9.4 dm ³ /s)
	1/4	20 SCFM (9.4 dm ³ /s)
Gauge Ports (2)	1/8	
Minimum Flow for Lubrication	0.7 SCFM at 100 PSIG	
Port Threads	1/8, 1/4	
Pressure & Temperature Ratings –		
Plastic Bowl	0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)	
Metal Bowl	0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)	
Secondary Pressure Ranges –		
Standard Pressure	2 to 125 PSIG (0 to 8.6 bar)	
Medium Pressure	1 to 60 PSIG (0 to 4.1 bar)	
Medium Pressure	1 to 30 PSIG (0 to 2.1 bar)	
Low Pressure	1 to 15 PSIG (0 to 1.0 bar)	
Weight	.9 lb. (.36 kg)	

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Knob, Seat, Piston, Holder & Deflector	Plastic
Bowls –	
Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Filter Elements – 5 Micron (Standard)	Plastic
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals	Nitrile
Sight Dome	Polycarbonate
Suggested Lubricant	
Airline Oil F442001	

= “Most Popular”

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

 **WARNING**

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

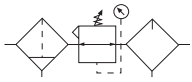
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl with Gauge	Metal Bowl with Gauge
Manual Drain	1/8	D03-01-G000	D03-01-GM00
	1/4	D03-02-G000	D03-02-GM00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination D08



Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Flush-Mount Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard

Specifications

Flow Capacity*	1/4	28 SCFM (14 dm ³ /s, ANR)
Gauge Port (2)**	NPT	1/8
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl Metal Bowl	14° to 125°F (-10° to 52°C) 14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Standard Filtration		5 Micron
Weight		1.43 lb. (0.6 kg)

* Inlet pressure 145 PSIG (10 bar), Secondary pressure 100 PSIG (6.9 bar), 14.5 PSIG (1 bar) pressure drop.

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Gauge supplied with every part. Gauge can be installed on the front or back of the regulator. If no gauge is installed, both seal screws must be installed.

Materials of Construction

Body	Aluminum	
Bonnet	Glass-filled Nylon	
Bowls	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Diaphragm Assembly	Stainless Steel / Nitrile	
Filter Element	Polyethylene	
Knob	Acetal	
Seals	Plastic Bowl Metal Bowl	Nitrile Nitrile
Sight Dome	Polycarbonate	
Springs	Steel	
Valve	Brass / Nitrile	

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

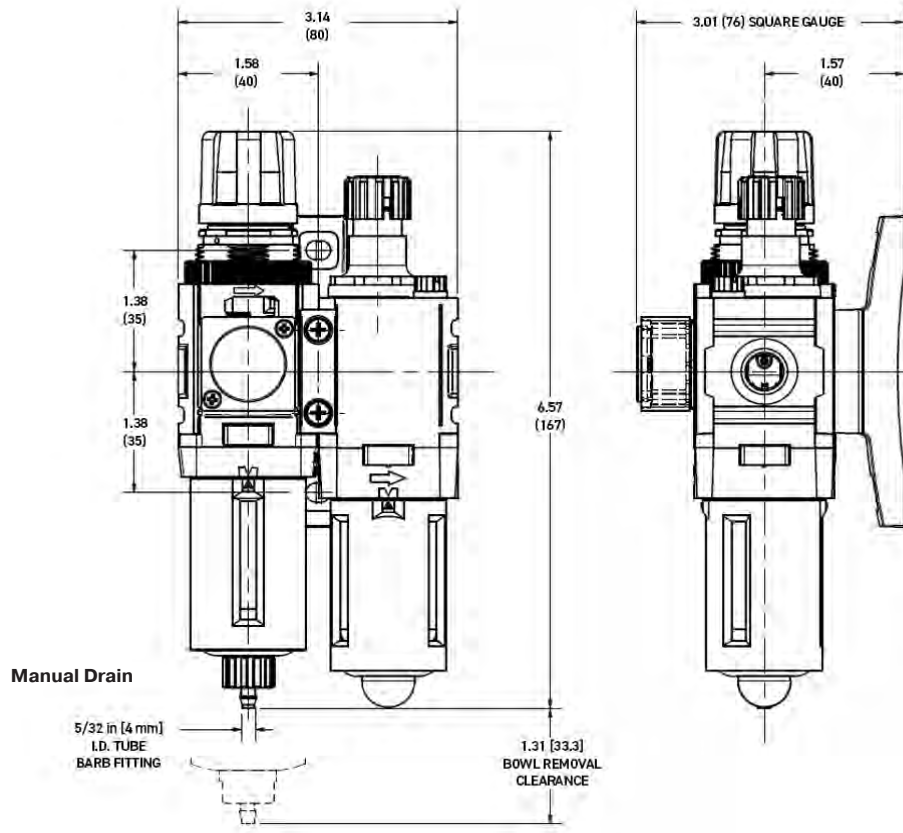
Ordering Information

Model	Port Size	Plastic Bowl w / Plastic Bowl Guard 0 to 125 PSI (0 to 8.6 bar) With Gauge	Metal Bowl w / 0 to 125 PSI (0 to 8.6 bar) With Gauge
Manual Drain	1/4	D08-02-FKG0B	D08-02-FLG0B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

 = "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.



Inches (mm)

 WARNING

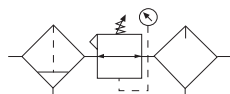
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

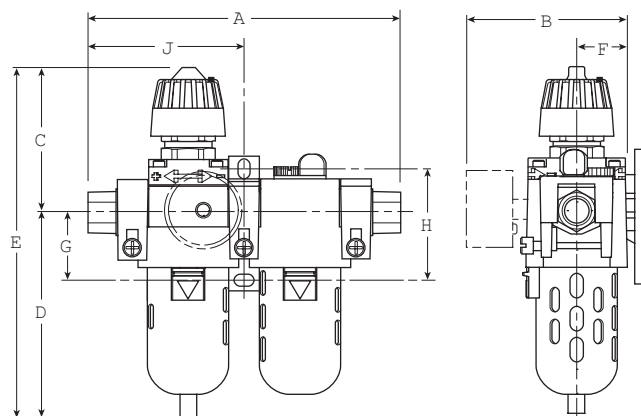
Combination CB7



CB7-02-000

Features

- Components Integrated into Single Unit
- Metal Bowl with Sight Gauge Option
- Pressure Gauge Standard
- Integral Plastic Bowl / Bowl Guard
- Quick Disconnect Bowl
- Standard Self-relieving



Dimensions

Model	Inches (mm)	A	B	C	D	E	F	G	H	J
Standard Unit With End Blocks CB7-XX-000		8.35 (212)	4.18 (106)	3.95 (44)	5.43 (137.9)	9.38 (238)	1.34 (34)	1.73 (44)	2.98 (75.7)	4.17 (76)

Specifications

Flow Capacity*	1/4	36.1 SCFM (17.0 dm ³ /s)
	3/8	58.5 SCFM (27.6 dm ³ /s)
	1/2	64.0 SCFM (30.2 dm ³ /s)

Gauge Ports (2)	NPT / BSPP-G	1/4
Port Threads	NPT	1/4, 3/8, 1/2

Pressure & Temperature Ratings –		
Plastic Bowl	0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)	
Metal Bowl	0 to 200 PSIG (0 to 14 bar) 32°F to 175°F (0°C to 80°C)	

Weight	5.58 lb. (2.5 kg)
--------	-------------------

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Zinc
Bonnet, Knob	PBT
Bowls –	
Transparent	Polycarbonate
Metal	Zinc
Diaphragm	Nitrile / Zinc
Drain Stem	Acetal / Polycarbonate
Filter Elements	Polypropylene
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals –	
Transparent	Nitrile
Metal	Fluorocarbon
Sight Dome	Nylon
Springs	Steel
Stem, Element Retainer and Deflector	Acetal
Suggested Lubricant	Airline Oil F442001

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.



WARNING

Product rupture can cause serious injury.

Do not connect regulator to bottled gas.

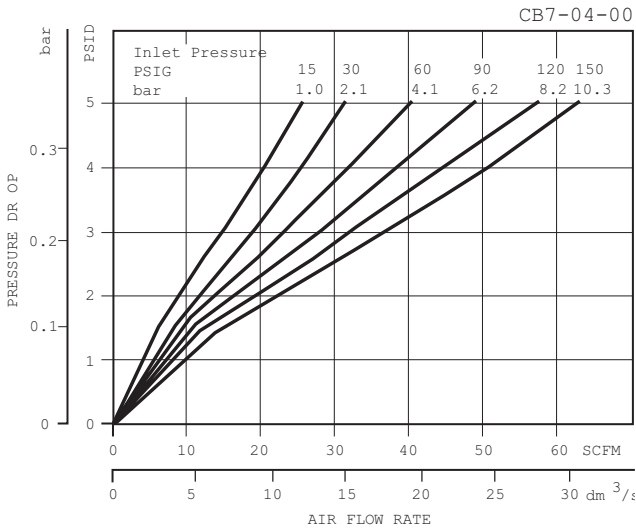
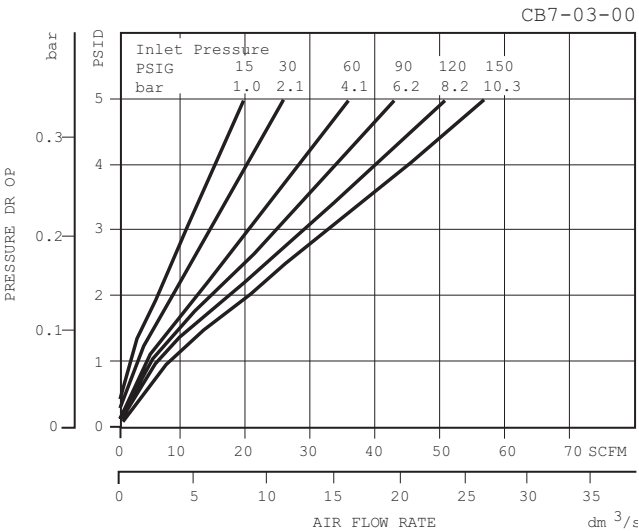
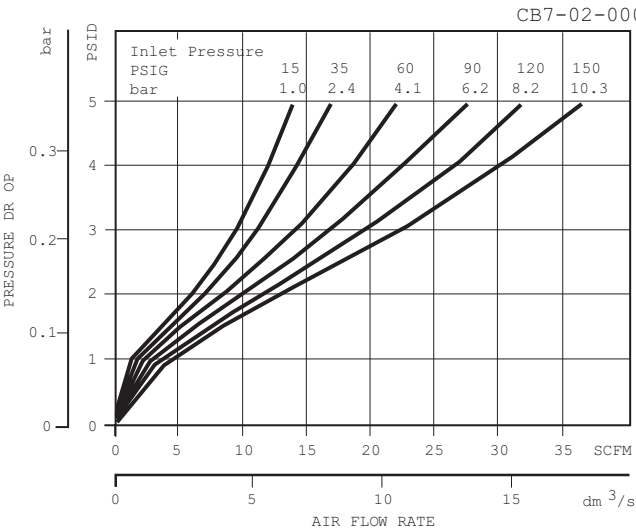
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

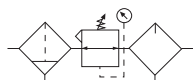


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard with End Blocks 0 to 125 PSIG (0 to 8.5 bar)	Metal Bowl / Sight Gauge 0 to 125 PSIG (0 to 8.5 bar)	Automatic Drain 0 to 125 PSIG (0 to 8.5 bar)
CB7	1/4	CB7-02-000	CB7-02-G00	CB7-02-F00
	3/8	CB7-03-000	CB7-03-G00	CB7-03-F00
	1/2	CB7-04-000	CB7-04-G00	CB7-04-F00

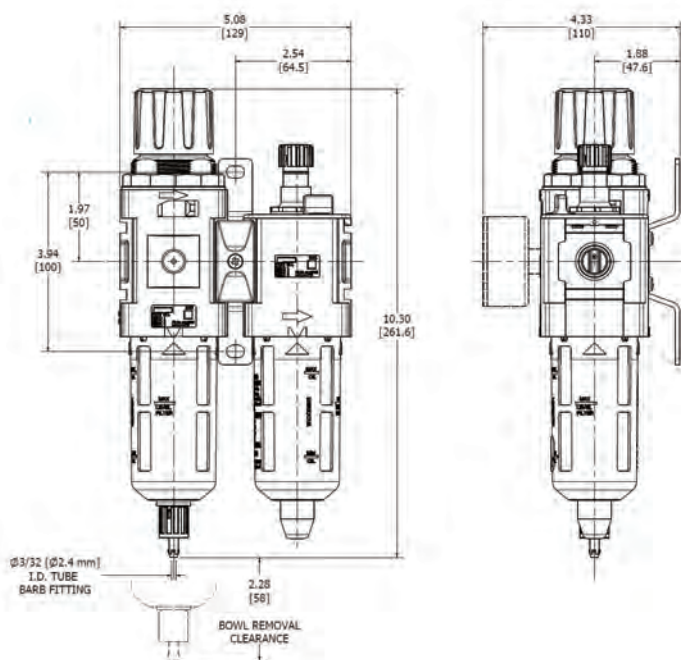
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination D18



Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard



Manual Drain

Inches (mm)

Specifications

Flow Capacity*	1/4	45 SCFM (22 dm ³ /s, ANR)
	3/8	70 SCFM (33 dm ³ /s, ANR)
	1/2	90 SCFM (43 dm ³ /s, ANR)
Gauge Port (2)	NPT / BSPP-G	1/4
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2
Standard Filtration	5 Micron	
Weight	2.98 lb. (1.3 kg)	

* Inlet pressure 145 PSIG (10 bar), Secondary pressure 91.3 PSIG (6.3 bar), 14.5 PSIG (1 bar) pressure drop.

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Aluminum	
Body Cap	ABS	
Bonnet / Knob	Nylon / Acetal	
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly	Nitrile / Stainless Steel	
Element Retainer / Baffle and Deflector	Acetal	
	Polypropylene	
Filter Element	5 micron	Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome	Polycarbonate	
Sight Gauge	Polyamide (Nylon)	
Springs	Main Regulating Valve	Steel
		Stainless Steel
Suggested Lubricant Airline Oil F442001		
Valve Assembly	Acetal / Nitrile	



Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

 WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

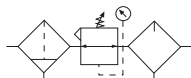
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard Without Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard With Gauge 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	1/4	D18-02-FK00B	D18-02-FKG0B
	3/8	D18-03-FK00B	D18-03-FKG0B
	1/2	D18-04-FK00B	D18-04-FKG0B
Automatic Drain	1/4	D18-02-FG00B	D18-02-FGG0B
	3/8	D18-03-FG00B	D18-03-FGG0B
	1/2	D18-04-FG00B	D18-04-FGG0B

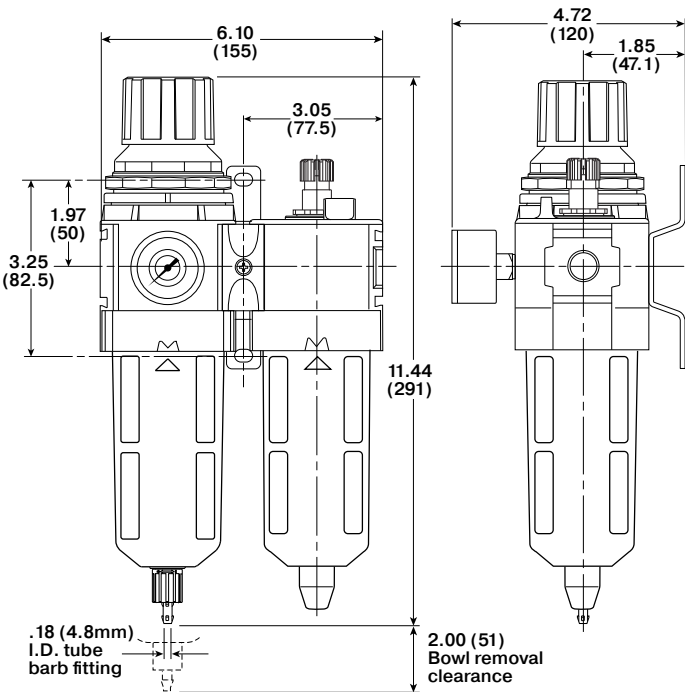
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination
D28



Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard



Manual Drain

Inches (mm)

Specifications

Flow Capacity*	3/8	110 SCFM (52 dm ³ /s, ANR)
	1/2	110 SCFM (52 dm ³ /s, ANR)
	3/4	150 SCFM (71 dm ³ /s, ANR)
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT/BSPP-G	3/8, 1/2, 3/4
Standard Filtration	5 Micron	
Weight	4.65 lb. (2.1 kg)	

* Inlet pressure 145 PSIG (10 bar), Secondary pressure 91.3 PSIG (6.3 bar), 14.5 PSIG (1 bar) pressure drop.

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Aluminum
Body Cap		ABS
Bonnet / Knob		Nylon / Acetal
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		Nitrile / Zinc
Element Retainer / Baffle and Deflector		Acetal Polypropylene
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge		Metal Bowl Polyamide (Nylon)
Springs	Main Regulating Valve	Steel Stainless Steel
Suggested Lubricant		Airline Oil F442001
Valve Assembly		Brass / Nitrile / Acetal

= “Most Popular”

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.



WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

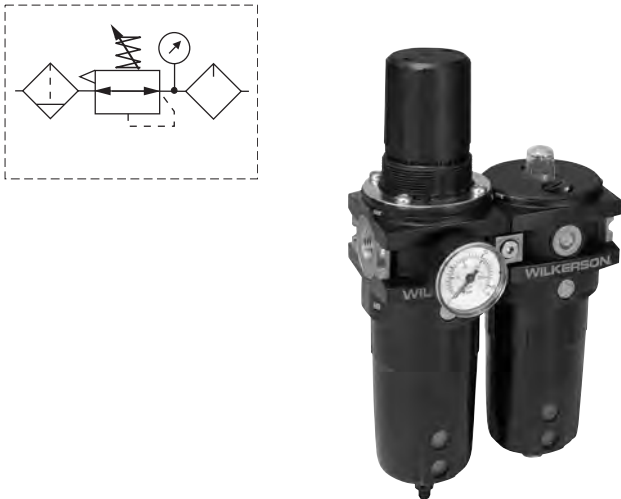
Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge With Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard With Gauge & End Blocks 0 to 125 PSI(0 to 8.6 bar)
Manual Drain	3/8	D28-03-FKG0B	D28-03-FLG0B	D28-03-FKBGB
	1/2	D28-04-FKG0B	D28-04-FLG0B	D28-04-FKBGB
	3/4	D28-06-FKG0B	D28-06-FLG0B	D28-06-FKBGB
Automatic Drain	3/8	D28-03-FGG0B	D28-03-FHG0B	D28-03-FGBGB
	1/2	D28-04-FGG0B	D28-04-FHG0B	D28-04-FGBGB
	3/4	D28-06-FGG0B	D28-06-FHG0B	D28-06-FGBGB

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination
D90

= "Most Popular"



Options

D90	-	0	6	-	A	H	G	M
Unit function		Thread type*	Port size		Regulator function / pressure	Bowl / drain type	Option	Option
Filter / Regulator + Lubricator		NPT 0 BSPP C	3/4 6 1 8		A Relieving / 0-174 PSI	H Metal bowl with sight gauge / auto drain L Metal bowl with sight gauge / manual drain	G Gauge	M Mounting bracket

For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
ms are most common.

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Filter / Regulator + Lubricator Combinations

5 micron element, 12 bar (174 psig) regulator + gauge and wall mounting bracket

Ordering information

Port size	Flow† scfm	Weight kg (lb)	Combined manual / semi-auto drain part number†	Auto drain part number†
3/4"	315	2.8 (6.2)	D90-06-ALGM	D90-06-AHGM
1"	340	2.8 (6.2)	D90-08-ALGM	D90-08-AHGM

† Standard part numbers shown in bold. For other models refer to Options chart below.
‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.4 psig) set pressure and 1 bar (14.5 psig) pressure drop.

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

WARNING

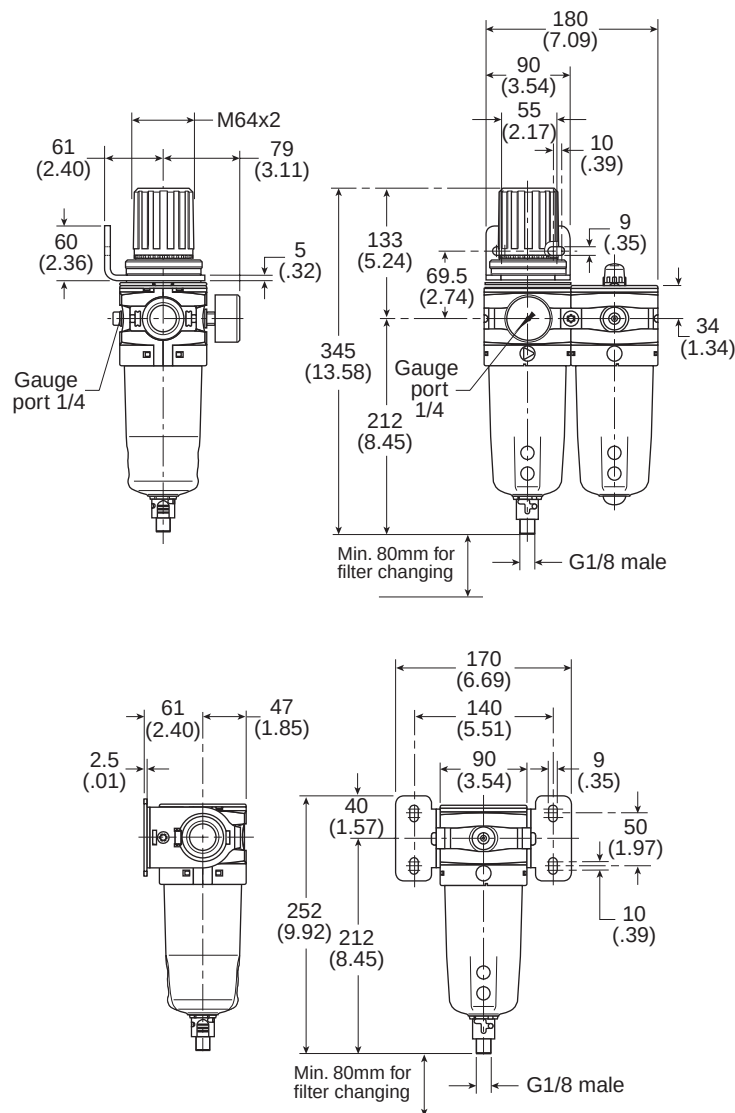
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

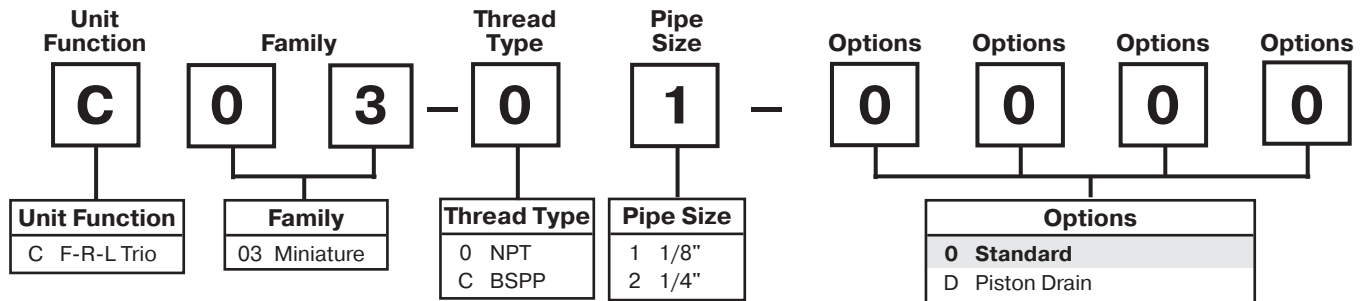
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions mm (inches)



Combination Numbering System

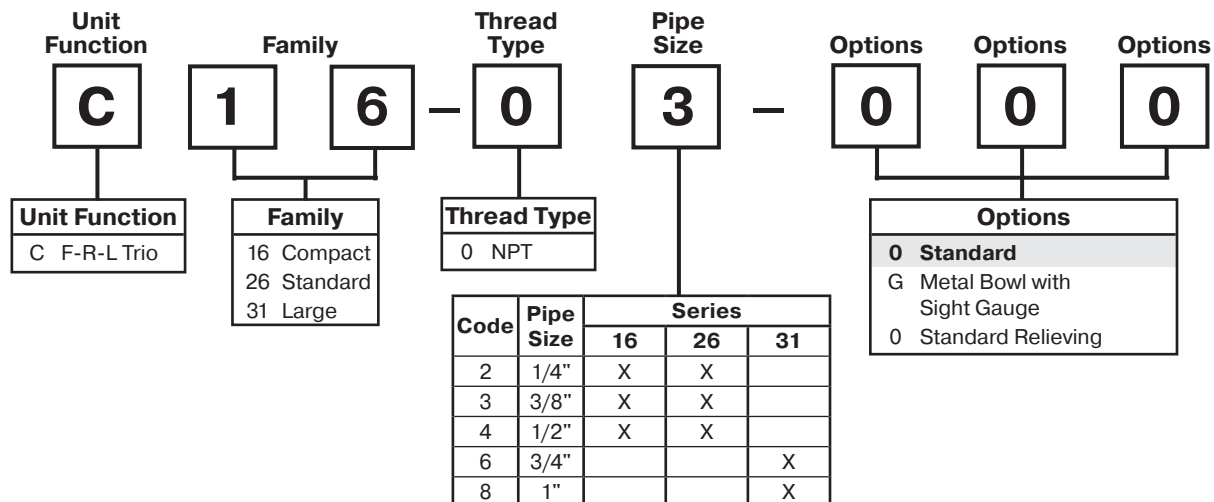
 = "Most Popular"



Note: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8, and 9.
For example: **M 0 3 - 0 1 - D M 0 0**

NOTE: 0000 in position 6, 7, 8 and 9 signifies standard product.
(Poly Bowl, Manual Drain on Filter, no Drain on Lubricator, 2 to 125 PSIG, Relieving)

* Not available with BSPP thread type.

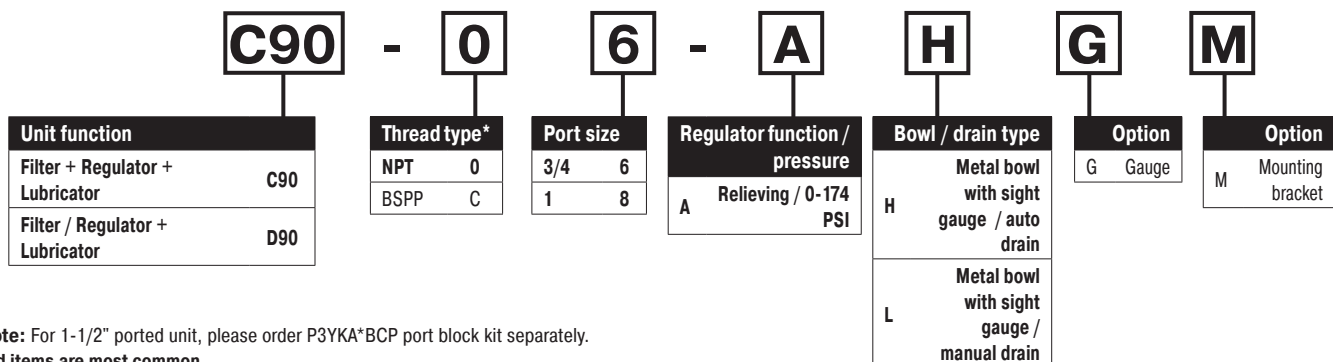


"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements meet or exceed ISO Class 3 for maximum particle size and concentration of solid contaminants.

Note: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 6, 7, 8.
For example:

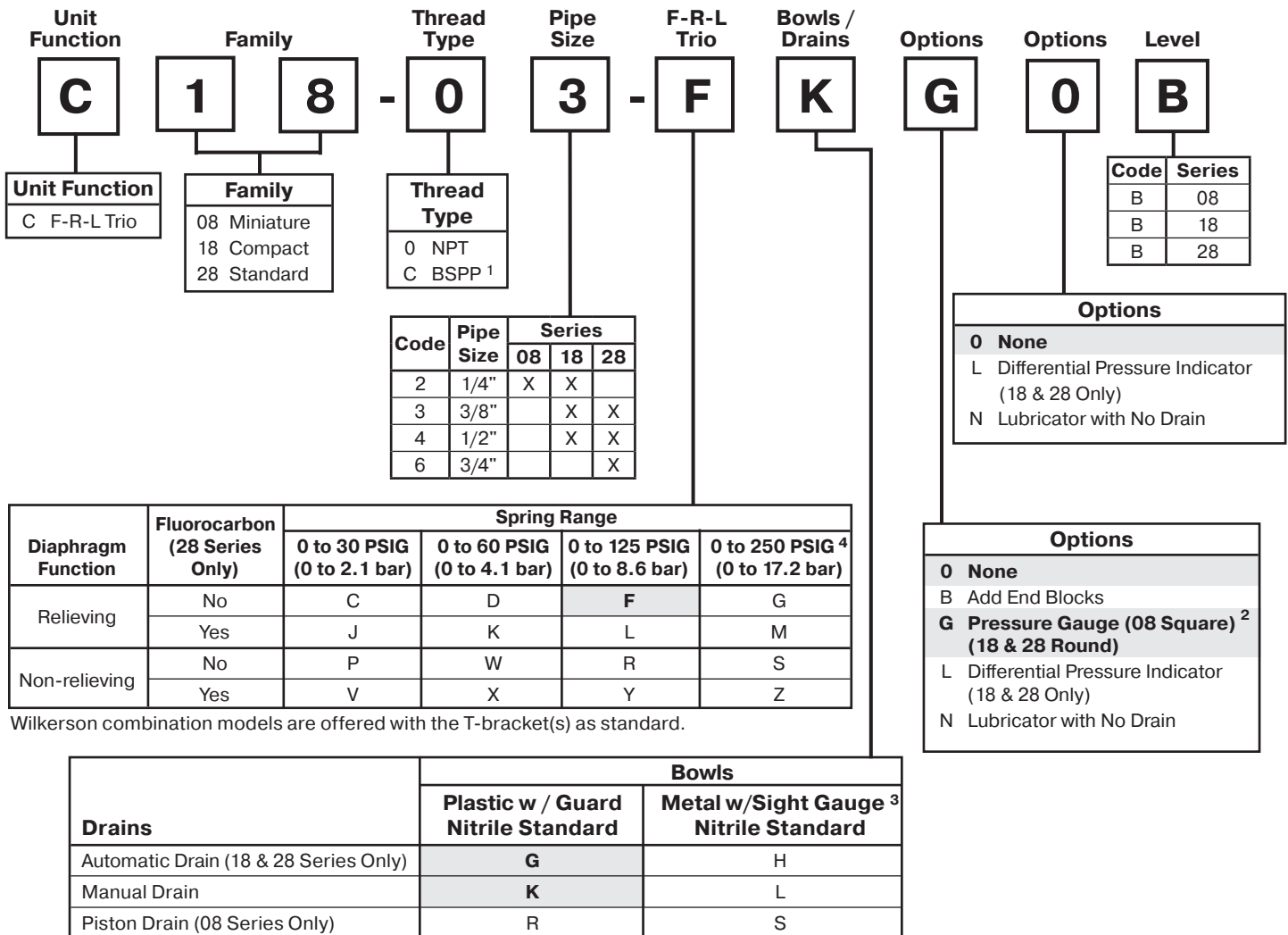
C 1 6 - 0 3 - 0 0 0



*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Combination Numbering System

 = "Most Popular"



¹ ISO, R228 (G Series)

² Square gauge included with all C08

³ 08 series has all metal bowl (no sight gauge).

⁴ 08 series operating range 0 to 232 PSIG (1 to 16 bar).

"F" Series Filters, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed** ISO Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

***Note:** For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

NOTE: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, 9.
For example:

C 1 8 - 0 3 - F K G 0 B

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

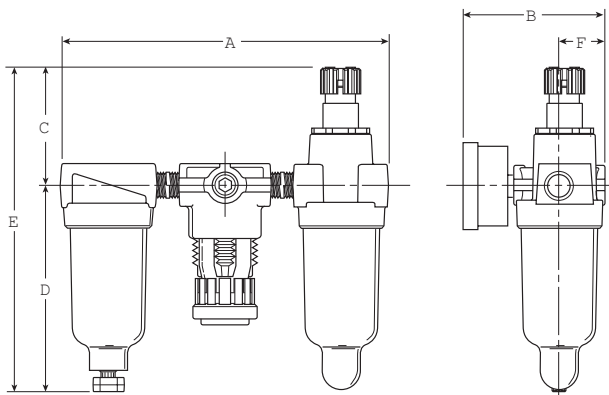
Combination C03



C03-02-0000

Features

- Excellent Water Removal Efficiency
- Unbalanced Poppet Standard
- Solid Control Piston for Extended Life
- Non-rising Adjustment Knob
- Two Full Flow 1/8" Gauge Ports
- Proportional Oil Delivery over a Wide Range of Air Flows
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Ideal for Low and Light flow Applications with Changing Air Flow
- Transparent Sight Dome for 360° Visibility
- Regulator can be mounted with knob in up or down position. (Factory supplied in down position)



Dimensions

Model	Inches (mm)	A	B	C	D	E	F
Standard Unit C03-XX-XXXX		5.77 (147)	2.83 (71.9)	2.16 (55)	3.82 (97)	5.98 (152)	.79 (20)

Specifications

Flow Capacity*	1/8	20 SCFM (9.4 dm ³ /s)
	1/4	20 SCFM (9.4 dm ³ /s)
Gauge Ports (2)	1/8	
Minimum Flow for Lubrication	0.7 SCFM at 100 PSIG	
Port Threads	1/8, 1/4	
Pressure & Temperature Ratings –		
Plastic Bowl	0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)	
Metal Bowl	0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)	
Secondary Pressure Ranges –		
Standard Pressure	2 to 125 PSIG (0 to 8.6 bar)	
Medium Pressure	1 to 60 PSIG (0 to 4.1 bar)	
Medium Pressure	1 to 30 PSIG (0 to 2.1 bar)	
Low Pressure	1 to 15 PSIG (0 to 1.0 bar)	
Weight	.9 lb. (.36 kg)	

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 90 PSIG (6.2 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Adjusting Nut	Brass
Adjusting Stem & Spring	Steel
Body	Zinc
Bonnet, Knob, Seat, Piston, Holder & Deflector	Plastic
Bowls –	
Transparent	Polycarbonate
Metal (Without Sight Gauge)	Zinc
Filter Elements – 5 Micron (Standard)	Plastic
Manual Drain –	
Body & Stem	Plastic
Seals	Nitrile
Piston Drain –	
Piston & Seals	Nitrile
Stem, Seat, Adaptor & Washers	Aluminum
Seals	Nitrile
Sight Dome	Polycarbonate
Suggested Lubricant	Airline Oil F442001

= “Most Popular”

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.



WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

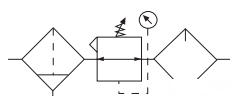
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl with Gauge	Plastic Bowl without Gauge	Metal Bowl with Gauge	Metal Bowl without Gauge
Manual Drain	1/8	C03-01-G000	C03-01-0000	C03-01-GM00	C03-01-M000
	1/4	C03-02-G000	C03-02-0000	C03-02-GM00	C03-02-M000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C08



Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Flush-Mount Pressure Gauge and Modular T-bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard

Specifications

Flow Capacity*	1/4	27 SCFM (13 dm ³ /s, ANR)
Gauge Port** (2)	NPT	1/8
Maximum Supply Pressure	Plastic Bowl Metal Bowl	150 PSIG (10.3 bar) 250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl Metal Bowl	14° to 125°F (-10° to 52°C) 14° to 150°F (-10° to 65.5°C)
Port Size	NPT / BSPP-G	1/4
Standard Filtration	5 Micron	
Weight	1.96 lb. (0.9 kg)	

* Inlet pressure 145 PSIG (10 bar), Secondary pressure 100 PSIG (6.9 bar), 14.5 PSIG (1 bar) pressure drop.

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Gauge supplied with every part. Gauge can be installed on the front or back of the regulator. If no gauge is installed, both seal screws must be installed.

Materials of Construction

Body	Aluminum	
Bonnet	Glass-filled Nylon	
Bowl	Plastic Bowl Metal Bowl	Polycarbonate Aluminum
Bowl Guard	Nylon	
Diaphragm Assembly	Stainless Steel/ Nitrile	
Filter Element	Polyethylene	
Knob	Acetal	
Seals	Plastic Bowl Metal Bowl	Nitrile Nitrile
Sight Dome	Polycarbonate	
Springs	Steel	
Valve	Brass / Nitrile	

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

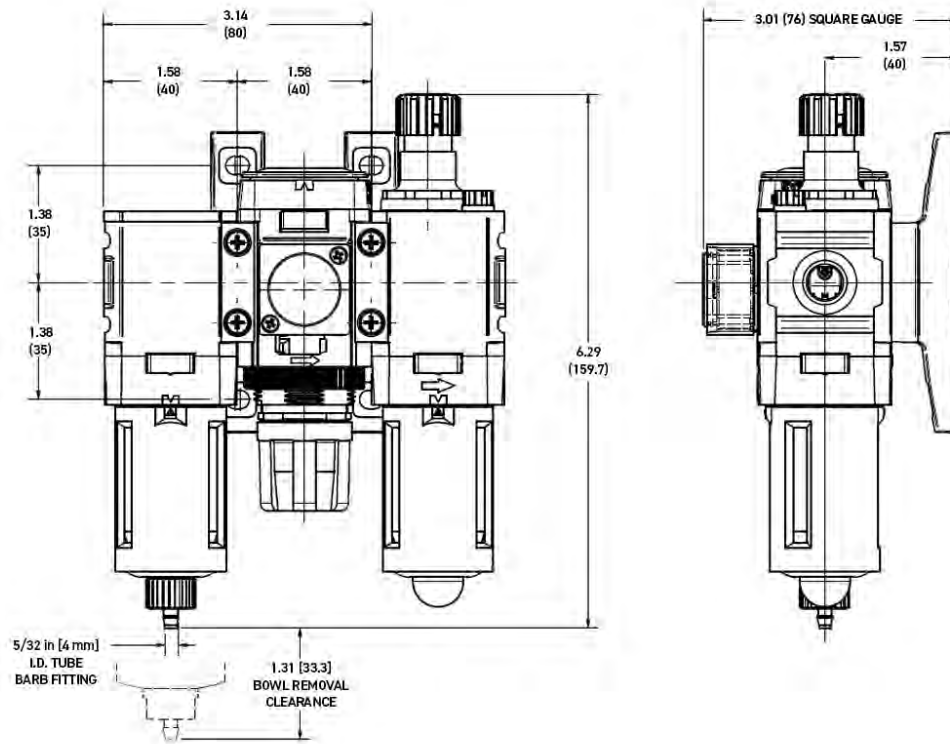
Ordering Information

Model Type	Port Size	Plastic Bowl /Bowl Guard / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl /With Gauge 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	1/4	C08-02-FKG0B	C08-02-FLG0B

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

 = "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.



⚠ WARNING

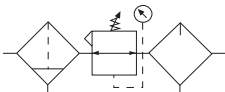
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Combination C18



Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard

Specifications

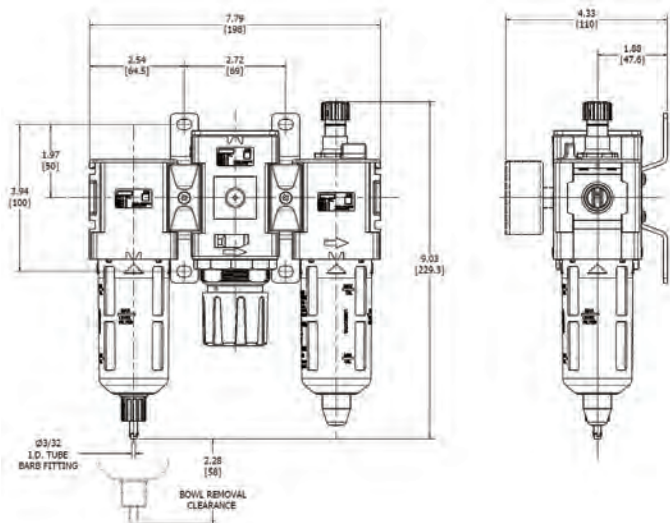
Flow Capacity*	1/4	42 SCFM (20 dm ³ /s, ANR)
	3/8	68 SCFM (32 dm ³ /s, ANR)
	1/2	85 SCFM (40 dm ³ /s, ANR)
Gauge Port (2)	NPT / BSPP-G 1/4	
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G 1/4, 3/8, 1/2	
Standard Filtration	5 Micron	
Weight	4.04 lb. (1.83 kg)	

* Inlet pressure 145 PSIG (10 bar), Secondary pressure 91.3 PSIG (6.3 bar), 14.5 PSIG (1 bar) pressure drop.

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Aluminum
Bonnet / Knob		Nylon / Acetal
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		Nitrile / Stainless Steel
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge		Polyamide (Nylon)
Springs	Main Regulating Valve	Steel
		Stainless Steel
Suggested Lubricant		
Airline Oil F442001		
Valve		Acetal / Nitrile



Inches (mm) Manual Drain

 = "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

 WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge & End Blocks 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	1/4	C18-02-FKG0B	C18-02-FLG0B	C18-02-FKBGB
	3/8	C18-03-FKG0B	C18-03-FLG0B	C18-03-FKBGB
	1/2	C18-04-FKG0B	C18-04-FLG0B	C18-04-FKBGB
Automatic Drain	1/4	C18-02-FGG0B	C18-02-FHG0B	C18-02-FGBGB
	3/8	C18-03-FGG0B	C18-03-FHG0B	C18-03-FGBGB
	1/2	C18-04-FGG0B	C18-04-FHG0B	C18-04-FGBGB

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

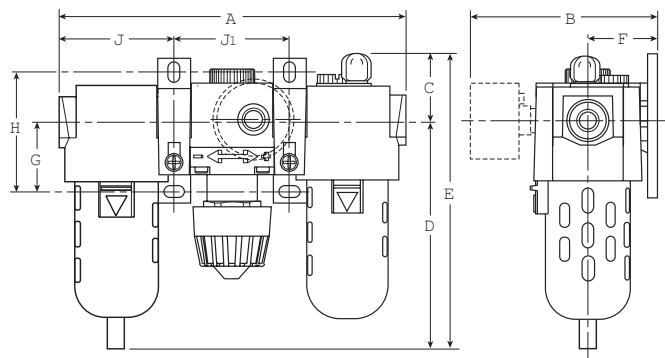
Combination C16



C16-02-000

Features

- Components Integrated into Single Unit
- Metal Bowl with Sight Gauge Option
- Pressure Gauge Standard
- Integral Plastic Bowl / Bowl Guard
- Quick Disconnect Bowl
- Standard Self-relieving



Dimensions

Model	Inches (mm)	A	B	C	D	E	F	G	H	J	J ₁
Standard Unit with End Blocks C16-XX-000		11.30 (287)	4.30 (109)	1.62 (41)	5.50 (139.7)	7.12 (180.8)	1.30 (33)	1.74 (44)	2.98 (75.7)	5.65 (143.5)	2.91 (73.9)

 = “Most Popular”

Specifications

Flow Capacity*	1/4	36.1 SCFM (17.0 dm ³ /s)
	3/8	58.5 SCFM (27.6 dm ³ /s)
	1/2	64.0 SCFM (30.2 dm ³ /s)
Gauge Ports (2)	NPT	1/4
Port Threads	NPT	1/4, 3/8, 1/4
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 200 PSIG (0 to 13.8 bar) 32°F to 175°F (0°C to 80°C)
Standard Filtration	5 Micron	
Weight	7.3 lb. (3.3 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).
“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Zinc
Bonnet, Knob	PBT
Bowls –	
Plastic Bowl	Polycarbonate
Metal Bowl	Zinc
Diaphragm	Nitrile / Zinc
Filter Element	Polypropylene
Seals –	
Plastic Bowl	Nitrile
Metal Bowl	Fluorocarbon
Sight Dome	Nylon
Springs	Steel
Suggested Lubricant	Airline Oil F442001
Valve Assembly	Brass / Nitrile / Acetal

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.



WARNING

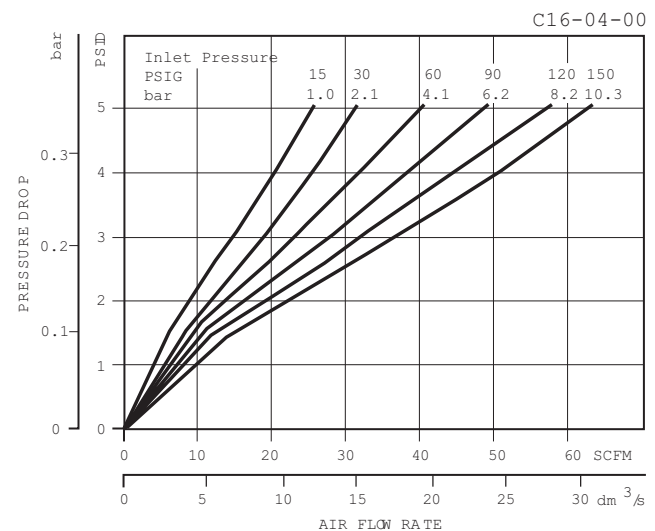
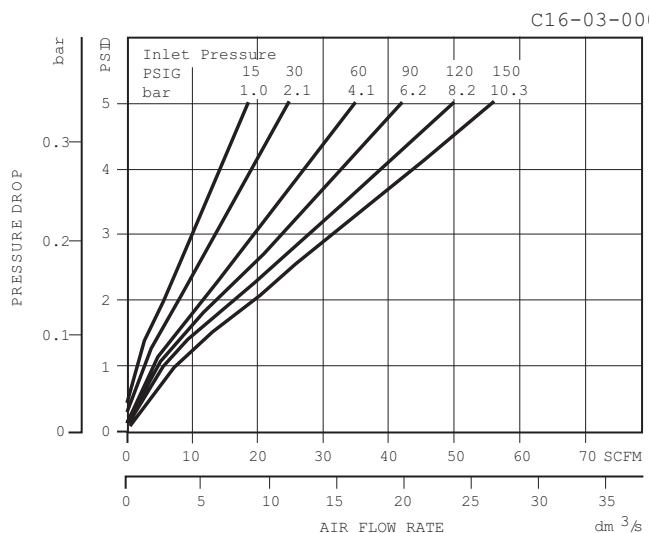
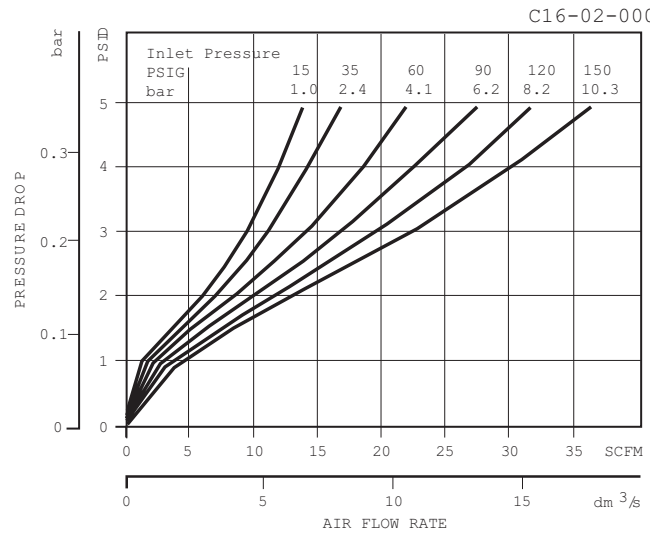
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

 = "Most Popular"

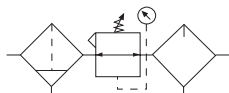


Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard with End Blocks 0 to 125 PSIG (0 to 8.5 bar)	Metal Bowl / Sight Gauge 0 to 125 PSIG (0 to 8.5 bar)
C16	1/4	C16-02-000	C16-02-G00
	3/8	C16-03-000	C16-03-G00
	1/2	C16-04-000	C16-04-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination
C28



Features

- Components Integrated into Single Unit
- Modern Design and Appearance
- Light Weight, Ready-to-Mount Assembly Comes Standard with Pressure Gauge and Modular T-Bracket / Joiner Assembly
- High Flow Capacity
- Quick-Disconnect Bowl / Bowl Guard

Specifications

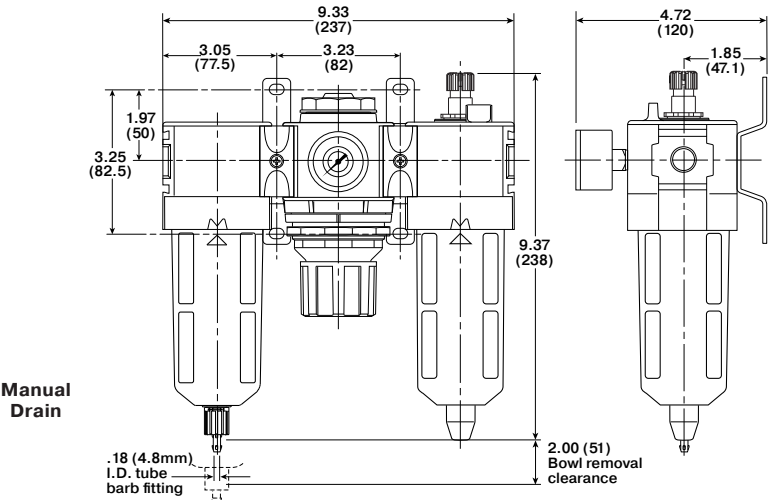
Flow Capacity*	3/8	90 SCFM (43 dm ³ /s, ANR)
	1/2	90 SCFM (43 dm ³ /s, ANR)
	3/4	110 SCFM (52 dm ³ /s, ANR)
Gauge Port (2)	NPT / BSPP-G 1/4	
Maximum Supply Pressure	Plastic Bowl	150 PSIG (10.3 bar)
	Metal Bowl	250 PSIG (17.2 bar)
Operating Temperature	Plastic Bowl	-13° to 125°F (-25° to 52°C)
	Metal Bowl	-13° to 150°F (-25° to 65.5°C)
Port Size	NPT / BSPP-G 3/8, 1/2, 3/4	
Standard Filtration	5 micron	
Weight	5.90 lb. (2.6 kg)	

* Inlet pressure 145 PSIG (10 bar), Secondary pressure 91.3 PSIG (6.3 bar), 14.5 PSIG (1 bar) pressure drop.

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO Class 3** for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body		Aluminum
Bonnet / Knob		Nylon / Acetal
Bowls	Plastic Bowl	Polycarbonate
	Metal Bowl	Aluminum
Diaphragm Assembly		
Nitrile / Zinc		
Filter Element		Polyethylene
Seals	Plastic Bowl	Nitrile
	Metal Bowl	Nitrile
Sight Dome		Polycarbonate
Sight Gauge	Metal Bowl	Polyamide (Nylon)
Springs	Main Regulating Valve	Steel
		Stainless Steel
Suggested Lubricant		
Airline Oil F442001		
Valve		Brass / Nitrile / Acetal



Inches (mm)

 = "Most Popular"

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

**WARNING**

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

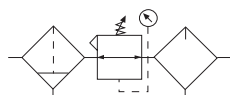
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Ordering Information

Model Type	Port Size	Plastic Bowl / Bowl Guard / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Metal Bowl / Sight Gauge / With Gauge 0 to 125 PSI (0 to 8.6 bar)	Plastic Bowl / Bowl Guard / With Gauge & End Blocks 0 to 125 PSI (0 to 8.6 bar)
Manual Drain	3/8	C28-03-FKG0B	C28-03-FLG0B	C28-03-FKBGB
	1/2	C28-04-FKG0B	C28-04-FLG0B	C28-04-FKBGB
	3/4	C28-06-FKG0B	C28-06-FLG0B	C28-06-FKBGB
Automatic Drain	3/8	C28-03-FGG0B	C28-03-FHG0B	C28-03-FGBGB
	1/2	C28-04-FGG0B	C28-04-FHG0B	C28-04-FGBGB
	3/4	C28-06-FGG0B	C28-06-FHG0B	C28-06-FGBGB

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination C26



C26-02-000

Features

- Components Integrated into Single Unit
- Metal Bowl with Sight Gauge Option
- Pressure Gauge Standard
- Integral Plastic Bowl / Bowl Guard
- Quick Disconnect Bowl
- Standard Self-relieving

Specifications

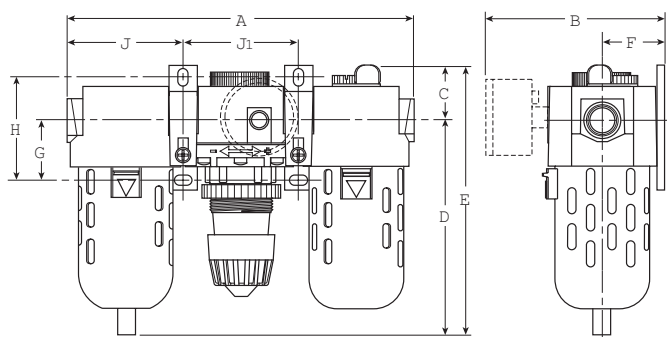
Flow Capacity*	1/4	35.0 SCFM (16.5 dm ³ /s)
	3/8	60.0 SCFM (28.3 dm ³ /s)
	1/2	128 SCFM (60.4 dm ³ /s)
Gauge Ports (2)	NPT / BSPP-G	1/4
Port Threads	NPT	1/4, 3/8, 1/2
Pressure & Temperature Ratings –		
Plastic Bowl		0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
Metal Bowl		0 to 200 PSIG (0 to 13.8 bar) 32°F to 175°F (0°C to 80°C)
Standard Filtration	5 Micron	
Weight	10.5 lb. (4.7 kg)	

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

“F” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Materials of Construction

Body	Zinc
Bonnet, Knob	PBT
Bowls –	
Plastic Bowl	Polycarbonate
Metal Bowl	Zinc
Diaphragm	Nitrile / Zinc
Filter Element	Polypropylene
Seals –	
Plastic Bowl	Nitrile
Metal Bowl	Fluorocarbon
Sight Dome	Nylon
Springs	Steel
Suggested Lubricant	Airline Oil F442001
Valve Assembly	Brass / Nitrile / Acetal



Dimensions

Model	Inches (mm)	A	B	C	D	E	F	G	H	J	J ₁
Standard Unit with End Blocks C26-XX-000		12.35 (314)	4.80 (122)	1.60 (41)	6.40 (162.6)	8.00 (203)	1.50 (38)	1.74 (44)	2.98 (75.7)	6.17 (157)	3.35 (85.1)

= “Most Popular”

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.



WARNING

Product rupture can cause serious injury.

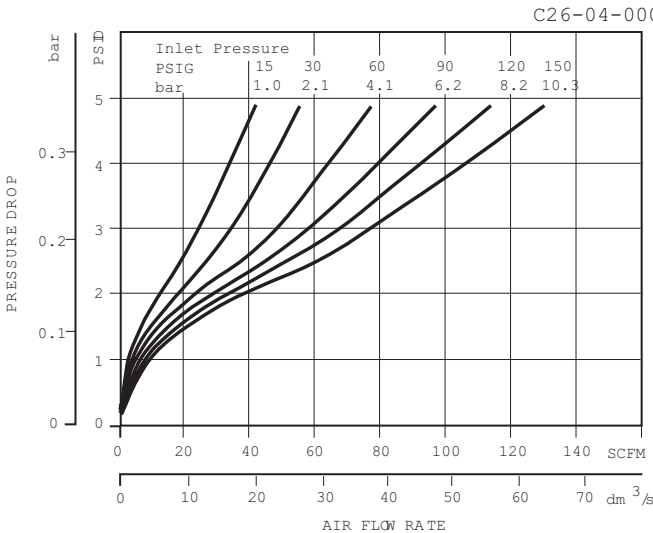
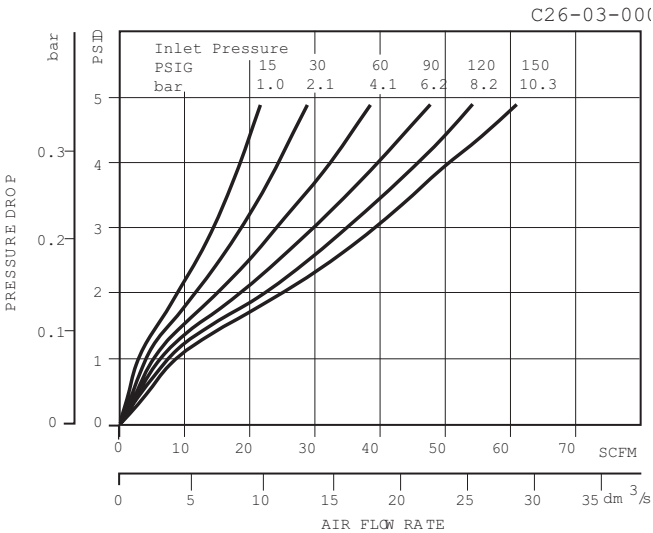
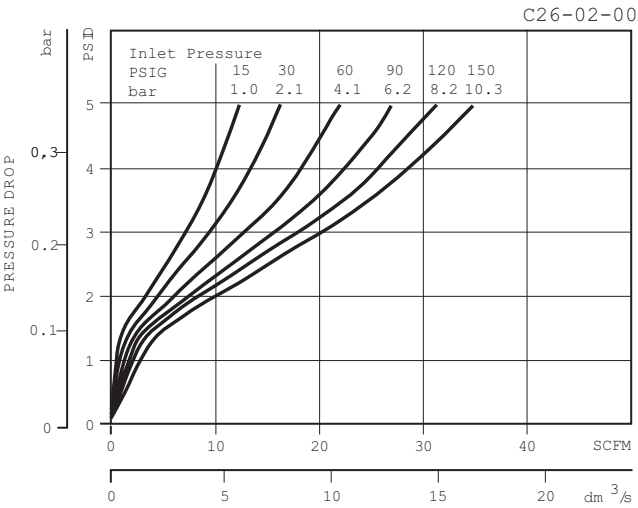
Do not connect regulator to bottled gas.

Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



Ordering Information

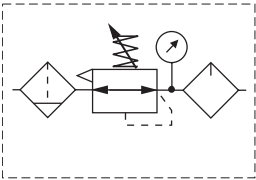
Model Type	Port Size	Plastic Bowl / Bowl Guard with End Blocks 0 to 125 PSIG (0 to 8.5 bar)	Metal Bowl / Sight Gauge 0 to 125 PSIG (0 to 8.5 bar)
C26	1/4	C26-02-000	C26-02-G00
	3/8	C26-03-000	C26-03-G00
	1/2	C26-04-000	C26-04-G00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Combination

C90

= "Most Popular"



Options

C90

-

0

-

6

-

A

H

G

M

Unit function	C90
Filter + Regulator + Lubricator	

Thread type*	0
NPT	
BSPP	C

Port size	3/4	6
	1	8

Regulator function / pressure	A
Relieving / 0-174 PSI	

Bowl / drain type	H
Metal bowl with sight gauge / auto drain	
L	
Metal bowl with sight gauge / manual drain	

Option	G
Gauge	

Option	M
Mounting bracket	

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Filter + Regulator + Lubricator Combinations

5 micron element, 12 bar (174 psig) regulator + gauge and wall mounting bracket

Ordering information

Port size	Flow† scfm	Weight kg (lb)	Combined manual / semi-auto drain part number†	Auto drain part number†
3/4"	170	3.3 (7.3)	C90-06-ALGM	C90-06-AHGM
1"	170	3.3 (7.3)	C90-08-ALGM	C90-08-AHGM

† Standard part numbers shown in bold. For other models refer to Options chart below.
‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.4 psig) set pressure and 1 bar (14.5 psig) pressure drop.

Note: For Kits and Repair Parts, see individual pages for Filters, Regulators, and Lubricators.

⚠ WARNING

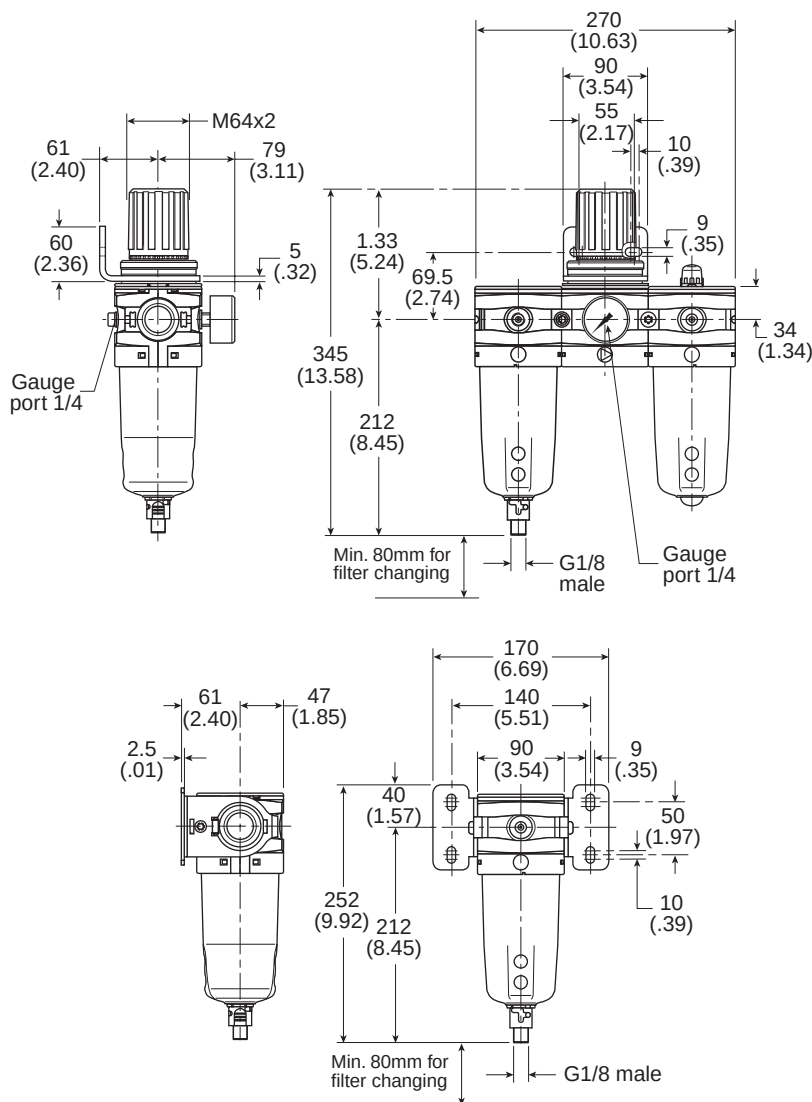
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions mm (inches)



Replacement Kits for Obsolete Products

Hi-Flow Particulate Filter F34 Series (3/4 & 1 ")

Element Type "A", 5 Micron FRP-95-209

Hi-Flow Particulate Filter F43 Series (3")

Element, 5 Micron, Fluorocarbon O-rings FRP-95-508

Hi-Flow Coalescing Filter M31 Series (3/4" & 1")

Type "B", 0.5 Micron MSP-95-993

Type "C", 0.01 Micron MTP-95-521

Type "D", Oil Vapor Removing MXP-95-522

Hi-Flow Coalescing Filter M32 Series (1")

Type "B1", 1.0 Micron MSP-95-873

Type "C", 0.01 Micron MTP-95-559

Type "D", Oil Vapor Removing MXP-95-558

Hi-Flow Coalescing Filter M43 Series (3")

Type "B1", 1.0 Micron MSP-95-876

Type "C", 0.01 Micron MTP-95-562

Type "D", Oil Vapor Removing MXP-95-565

Hi-Flow Coalescing Filter M45 Series (3")

Type "B1", 1.0 Micron MSP-95-500

Type "C", 0.01 Micron MTP-95-500

Type "D", Oil Vapor Removing MXP-95-500

Notes



Additional Modular Products

Slow-Start / Quick Dump Valves C2-C3
E09 C4
E18 / E28 C6
E28 C8
E90 C12
S18 / S28 C14
S90 C16
Q09 / Q19 C18

Electronic Proportional Regulator C20-C21
ER09, ER19 C22
ER90 C38
ER1 / ER2 C40

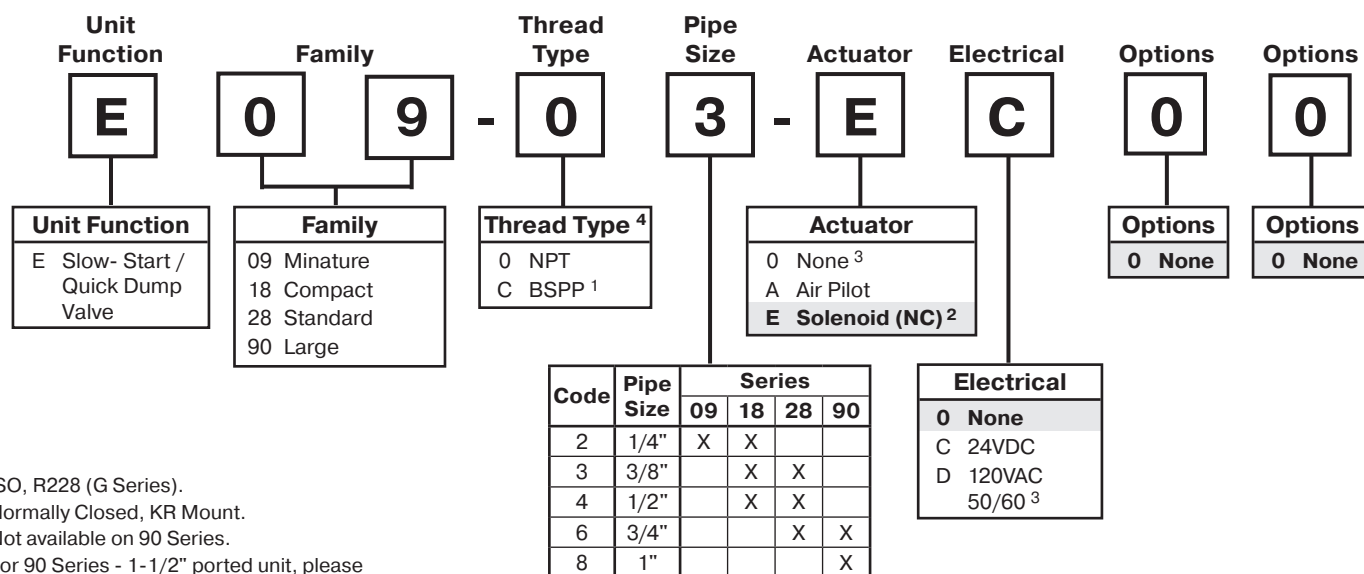
Electronic Proportional Valve C43
EPV C44

Safety Lockout Valves C52
V40 / V60 / V73 C52
V90 C53

Diverter Blocks C54
N08 C55
N18 / N28 C56
NJ8 C57
P3YKA C58
P3YMA C58

Slow-Start / Quick Dump Valve Numbering System

 = "Most Popular"

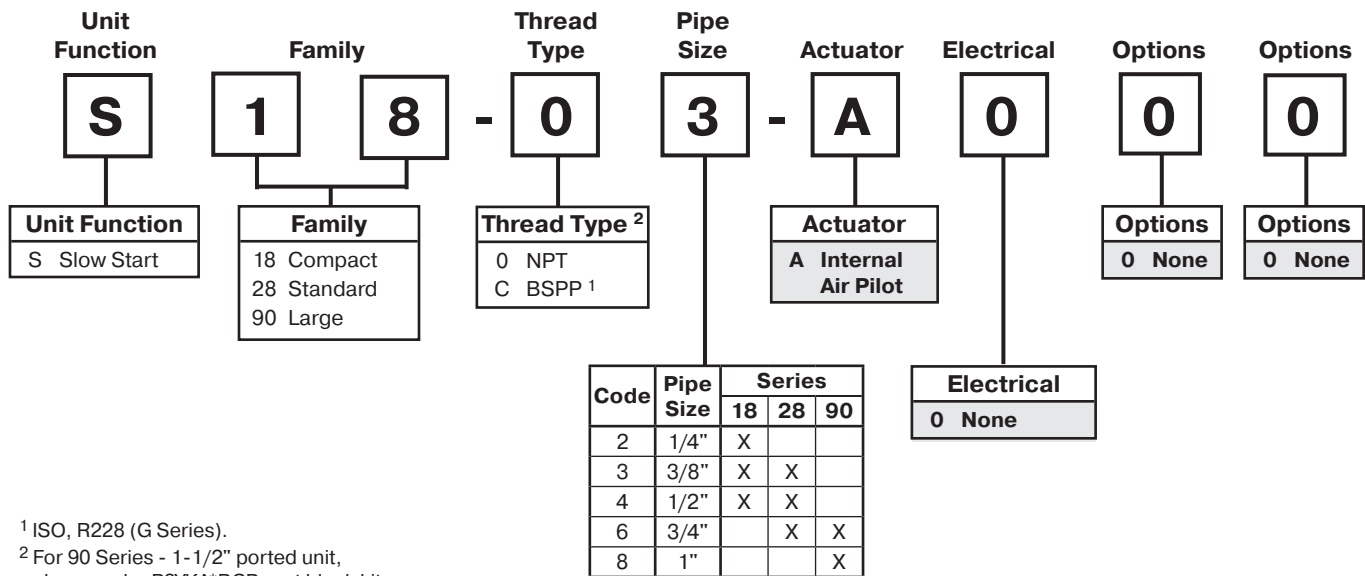


Slow-Start / Quick Dump Valve

The Slow-Start / Quick Dump Valve is designed as a three-way Quick Dump Valve with a built-in Slow-Start capability. This Slow-Start capability allows control of downstream pressure buildup at start-up of a compressed air system. The combination of Slow-Start and Quick Dump reduces the number of pneumatic components and the unique volume-independent design allows any number of additions to the pneumatic circuit without readjusting the Slow-Start function.

Slow-Start Valve Numbering System

 = "Most Popular"



Slow-Start Valve

The Slow Start Valve is used in compressed air systems to control the rate of downstream pressure buildup at start-up. The Slow Start Valve is also referred to as the "Monday Morning" valve or smooth start valve.

The Slow Start Valve allows cylinders, valves and other pneumatically operated components to gradually move into their normal start-up position. The design and operation of the slow start valve can reduce the possibility of equipment or part damage and occupational hazard to the worker.

The normally closed slow start valves are air-piloted.

Testing was conducted by applying a P1 pressure and measuring an increasing P2 pressure until P2 reached P1.

Response time conducted with 46.36 in³ (759.8 cm³) volume.

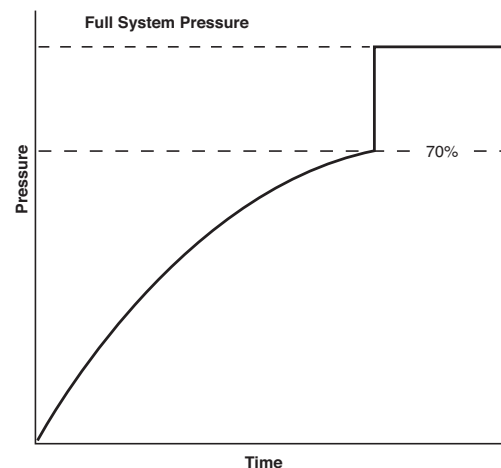
The S18 and S28 Slow Start Valves are volume dependent devices. The amount of time it takes for the valve to open fully is dependent on the system volume downstream of the slow start valve. The adjusting screw meters the air flow that is pressurizing the system volume. When the system volume is pressurized to approximately 70% of the line pressure, the main valve inside the slow start valve is snapped open. When this occurs, the system volume (i.e. the cylinders, air motors, air tools, etc.) sees full line pressure.

The S18 / S28 is offered as standard in the internal air-piloted version. It can be field converted to

solenoid-operated by removing the top cap to access the KR solenoid valve mounting pattern, which pre-drilled and tapped on all bodies. A CNOMO Mount Solenoid valve can also be used by ordering kit number VRP-95-713, KR to CNOMO adapter block.

Note: Minimum Operating Pressure = 30 PSIG (2.1 bar)

Maximum Flow Across Needle Valve = 12 SCFM (5.6 dm³/s)



Combined Soft-Start Dump Valve & Remote Operated Dump Valve E09

 = “Most Popular”

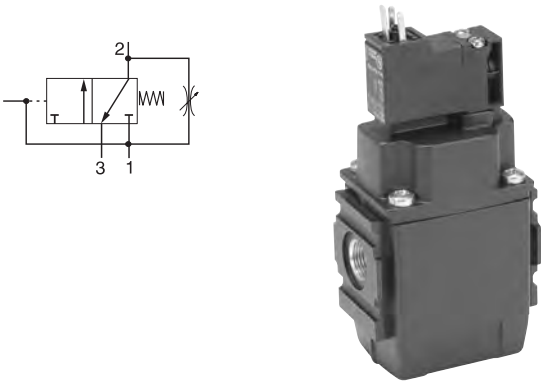
Specifications

Flow Capacity*	1/4	17 SCFM (36 dm³/s)
Exhaust Port	1/4	
Air Pilot Port	1/8	
Port Threads –	NPT or BSPT	1/4
Pressure & Temperature Ratings –		
Solenoid	150 PSIG (10 bar)	122°F (50°C)
Air Pilot	250 PSIG (17 bar)	176°F (80°C)
Minimum Operating Pressure	44 PSIG (3 bar)	
Weight	13 oz. (.41 kg)	

* Inlet pressure 91 PSIG (6.3 bar). Pressure drop 14.5 PSID (1 bar).

Materials of Construction

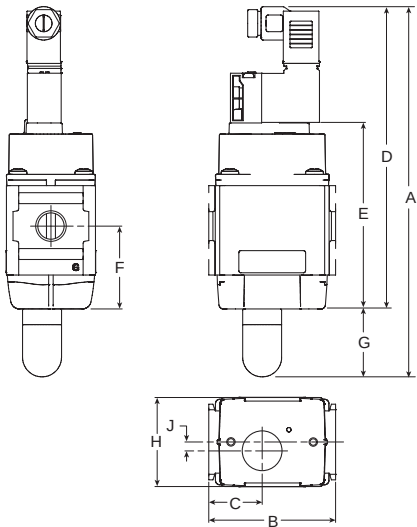
Body	Aluminum
Body Cover	Polyester
Seals	Nitrile NBR



E09-02 -EC00

Features

- Modular Design with 1/4" (BSPT or NPT)
- Provides for the Safe Introduction of Pressure
- The 3-way, 2-position Function Automatically Dumps Downstream Pressure on the Loss of Pilot Signal
- 24VDC, 120VAC Solenoid or Air Pilot Versions Available
- Soft Start Fill Rate Easily Adjusted
- Solenoid or Air Pilot Options
- High Flow & Exhaust Capability

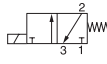


Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H	J
Standard Unit E09-02-EC00		6.53 (166)	2.24 (57)	94 (24)	5.35 (136)	3.30 (84)	1.45 (37)	1.20 (30.5)	1.57 (40)	0.15 (4)

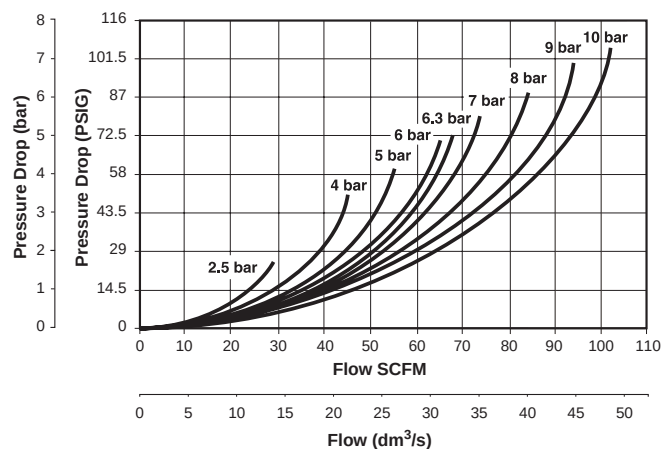
= "Most Popular"

Solenoids 15mm NC, Standard Flow DIN 1.2W / 1.6 VA

Voltage	Weight g	Order code Override, blue, non locking flush
 12 VDC	38	P2E-KV32B1
24 VDC	38	P2E-KV32C1
115 VAC 50 Hz/ 120 VAC 60 Hz	38	P2E-KV31F1
230 VAC 50 Hz/ 240 VAC 60 Hz	38	P2E-KV31J1

Flow characteristics

1/4 Soft Start & Dump Valve



Mounting Brackets

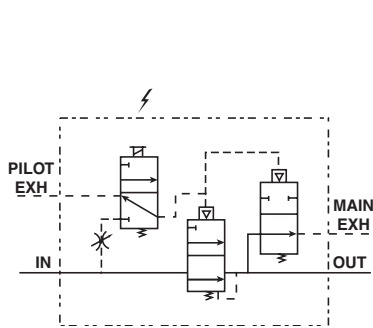
Description	Order code
L-Bracket mounting kit	P3HKA00ML
Foot bracket mounting kit	P3HKA00MC

Ordering Information

Model Type	Port Size	24VDC Solenoid & Cable Plug	120VAC Solenoid & Cable Plug	Air Pilot Operated
E09	1/4	E092-02-EC00	E092-02-ED00	E09-02-A000

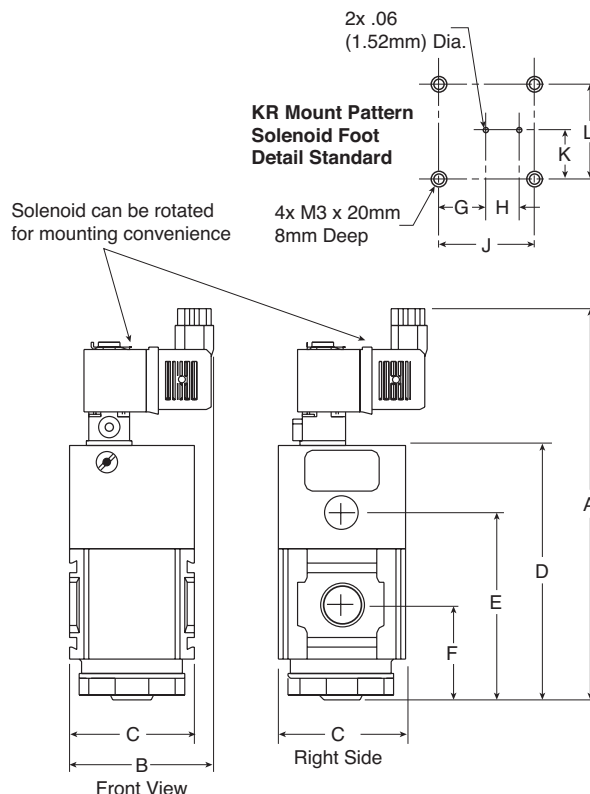
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Slow-Start / Quick Dump Valve E18 / E28

 = "Most Popular"
**E18-03-EC00**

Features

- Modular Design
- True Volume Independence
- High Flow Capacity
- Choice of Two Exhaust Port Locations



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H	J	K	L
Standard Unit E18-XX-EC00		7.32 (186)	2.70 (68.5)	2.36 (60)	4.79 (121.6)	3.52 (89.4)	1.79 (45.4)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)
Standard Unit E28-XX-EC00		7.32 (186)	2.96 (75.1)	2.88 (73.1)	4.79 (121.6)	3.52 (89.4)	1.79 (45.4)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)

Specifications

Flow Capacity*	E18	1/4	95 SCFM (44.8 dm ³ /s)
		3/8	101 SCFM (47.7 dm ³ /s)
		1/2	113 SCFM (53.3 dm ³ /s)
	E28	3/8	196 SCFM (92.5 dm ³ /s)
		1/2	210 SCFM (99.1 dm ³ /s)
		3/4	230 SCFM (108.5 dm ³ /s)
Exhaust Ports	NPT / BSPP-G		E18 3/8
Right Side and Rear			E28 3/8
Maximum Supply Pressure	150 PSIG (10.3 bar)		
Minimum Pressure	30 PSIG (2.1 bar)		
Operating Temperature	32° to 150°F (0° to 65.5°C)		
Port Size	NPT / BSPP-G	E18	1/4, 3/8, 1/2
		E28	3/8, 1/2, 3/4
Weight	lb. (kg)	E18	2.23 (1.01)
		E28	2.50 (1.14)

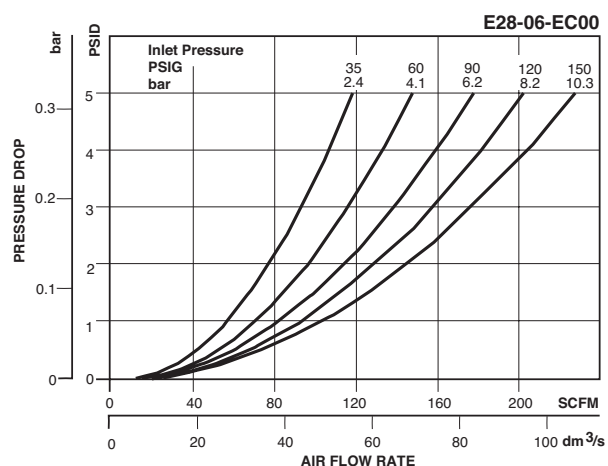
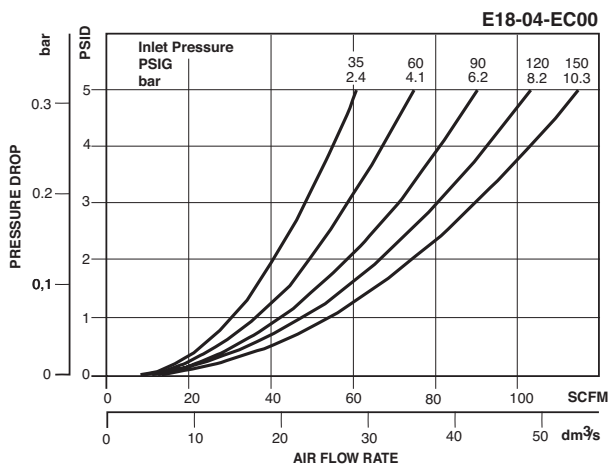
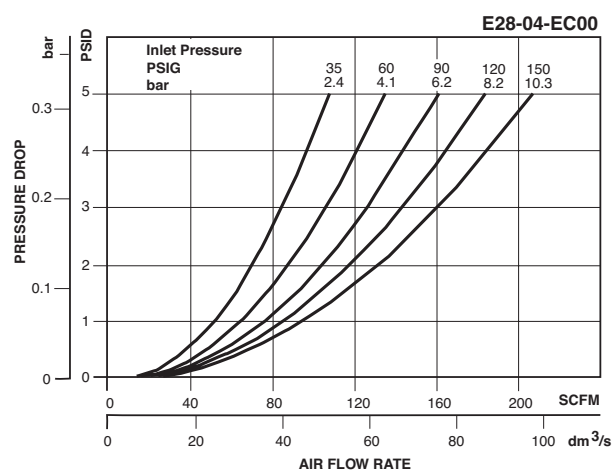
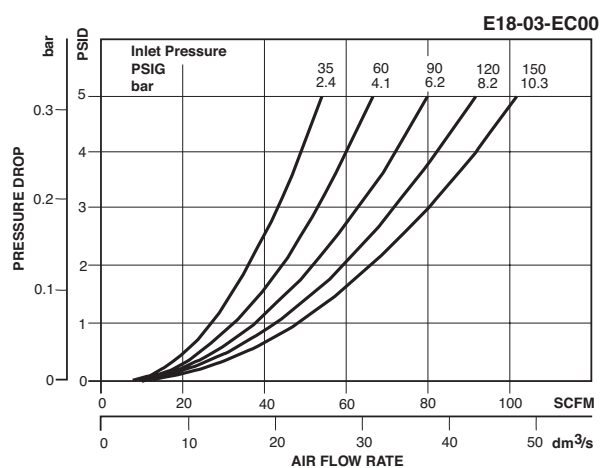
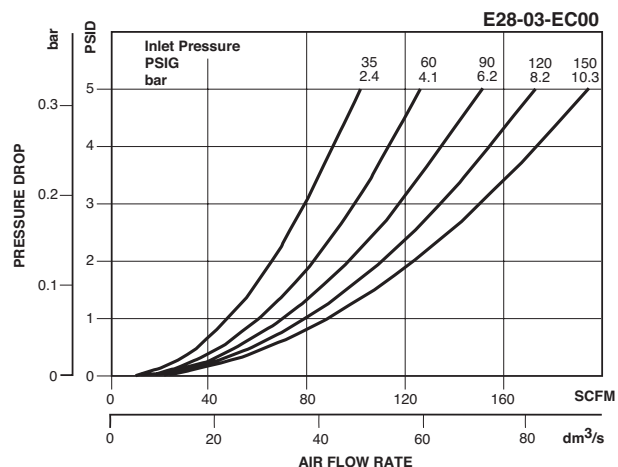
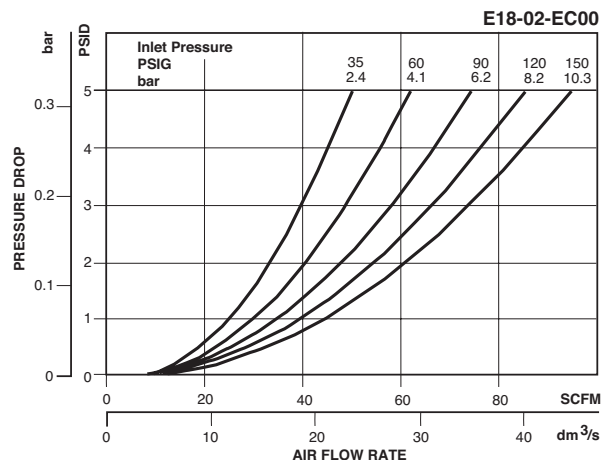
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Aluminum
Bottom Plug	33% Glass-Filled Nylon
Seals	Nitrile
Springs	Music Wire / Stainless Steel
Valve Assembly	Brass / Nitrile

Replacement Kits

Actuating Valve, KR Mount, 24VDC	VRP-95-776
Actuating Valve, KR Mount, 120VAC	VRP-95-777
Actuating Valve, CNOMO, 24VDC	VRP-95-778
Actuating Valve, CNOMO, 120VAC	VRP-95-779
Muffler	VRP-95-780
Valve / Spring Kit	VRP-95-781
Repair Kit (Includes Valve / Spring)	VRP-95-782
Body Cap Kit (E18)	VRP-95-784
Body Cap Kit (E28)	VRP-95-785
KR to CNOMO Adapter Block	VRP-95-712
C-Bracket –	
E18	GPA-97-086
E28	GPA-97-087

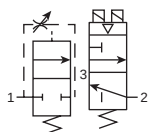
 = "Most Popular"


Ordering Information

Model Type	Port Size	24V / DC N.C.	120V / 60 Hz N.C.
E18	1/4	E18-02-EC00	E18-02-ED00
	3/8	E18-03-EC00	E18-03-ED00
	1/2	E18-04-EC00	E18-04-ED00
E28	3/8	E28-03-EC00	E28-03-ED00
	1/2	E28-04-EC00	E28-04-ED00
	3/4	E28-06-EC00	E28-06-ED00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Redundant Safety Exhaust Valve E28



Features

- Proven control reliable technology with integrated soft start
- Soft start application of air to the system when energized; can be adjusted for slower or faster buildup of system pressure
- Rapid exhaust of downstream air when de-energized to remove stored energy and allow safe access
- Memory, monitoring, and air flow control functions are integrated into two identical valve elements. Valves lock-out if asynchronous movement of valve elements occurs during actuation or de-actuation, resulting in a residual outlet pressure of less than 1% of supply.
- Reset can only be accomplished by the integrated electrical (solenoid) reset. Cannot be reset by removing and re-applying supply pressure.
- Basic 3/2 normally closed valve function: Dirt tolerant, wear compensating poppet design for quick response and high flow capacity.
- LED indicators of main solenoid operation, reset solenoid operation, and status indicator condition.
- Optional transducer for monitoring of downstream pressure in the system.
- Dual exhaust silencers included.
- Not for use with clutch / brake applications.
- For use in conjunction with a safety relay or safety PLC.

Specifications

Pilot Solenoids:	According to VDE 0580
Enclosure Rating:	According to DIN 400 50 IP65
Connector Socket:	According to DIN 43650 Form A
Three Solenoids, Rated for Continuous Duty	
Standard Voltages:	24VDC
Power Consumption (Each Solenoid):	
For Primary and Reset Solenoids:	1.2 Watts on DC
Enclosure Rating:	IP65, IEC 60529
Electrical Connection:	M12, 5 Pin
Ambient Temperature:	15°F to 122°F (-10°C to 50°C)
Media Temperature:	40°F to 175°F (4°C to 80°C)
Flow Media:	Compressed Air, Filtered to Minimum 40 Micron
Inlet Pressure:	30 to 150 PSIG (2 to 10 bar)
Pressure Switch (Status Indicator)	
Rating:	5 Amps at 30 Volts DC.
Monitoring:	Dynamically, cyclically, internally during each actuating and de-actuating movement. Monitoring function has memory and requires an overt act to reset unit after lockout.
Mounting Orientation:	Vertically with Pilot Solenoids on Top
Port Threads:	3/4 NPT, 3/4 BSPP
Control Reliable:	Category 4 (Cat 4); performance Level e (PLe) in accordance with Machine Directive - EN ISO 13849-1 (certification pending)

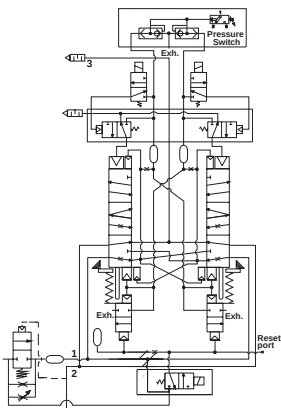
Accessories

Black Grill	1834C05-001
Cables	
M12, 5-Pin Female To Flying Lead Cable, TPE; 2 m (6.6 ft)	RKC 4.5T-2/S1587
M12, 5-Pin Male To Flying Lead Cable, TPE; 2 m (6.6 ft)	RSC 4.5T-2/S1587
End Block	
1/2 NPT	GPA-96-612
3/4 NPT	GPA-96-613
1/2 BSPP	GPA-96-622
3/4 BSPP	GPA-96-623
Joiner Set	GPA-96-601
Pressure Switch	1227A30-001
Pressure Transducer	1232H30-001
T-bracket w/ Joiner Set	GPA-96-603
T-bracket (Fits to Joiner Set or End Block)	GPA-96-602
Silencer (s) 3/4"	5500A5013
Solenoid (Main & Reset)	1527B7916-001
Square Flush Mounting Gauge Kit	
0-160 psig	K4511SCR160

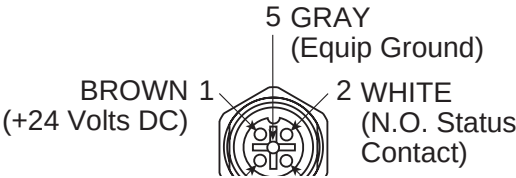
= “Most Popular”

E28 Schematic

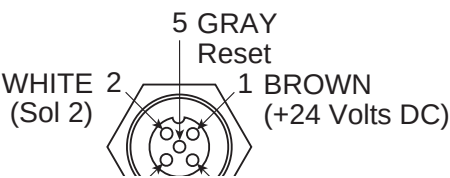
Pin Wiring



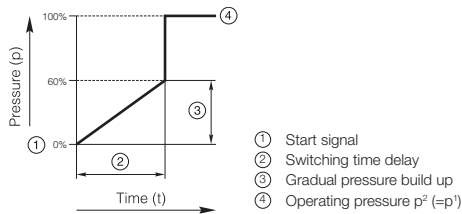
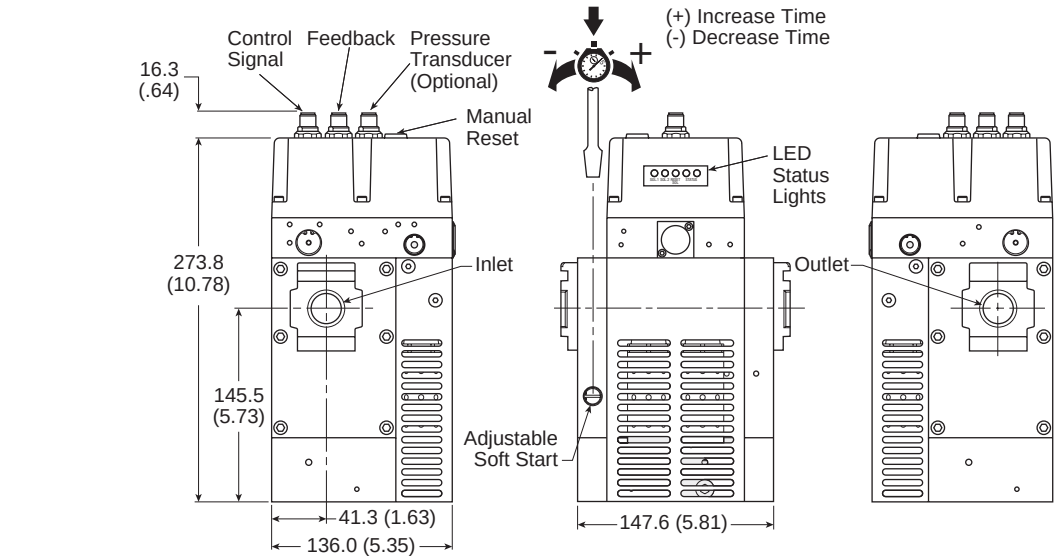
5-Pin “A” Code
Female Connector
(Feedback)



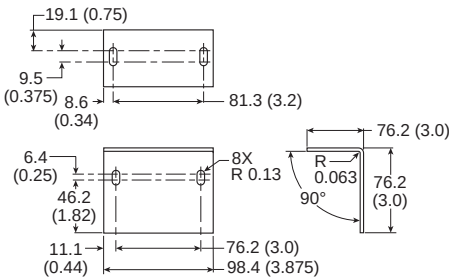
5-Pin “A” Code
Male Connector
(Control Signal)



Dimensions



Angle Mounting Bracket



Note: Mounting bracket and installation screws included and required to install unit in the system.

Ordering Information

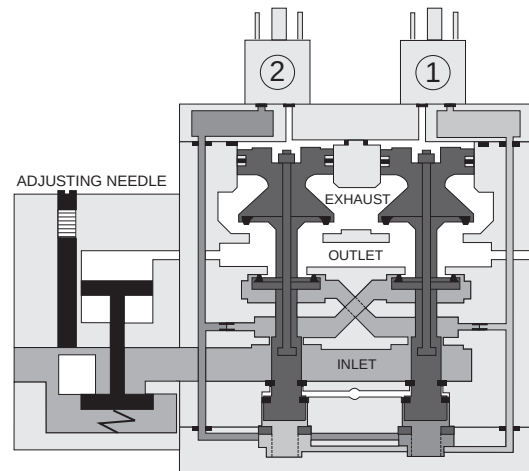
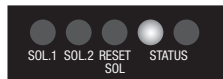
Port Size		Transducer	Cv		Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Order Code*
Inlet	Outlet		1 to 2	2 to 3					
3/4	3/4	w/o transducer	3.7	8.5	273.8 (10.78)	136.0 (5.35)	147.6 (5.81)	7.3 (16.1)	E28-06-EC4N
3/4	3/4	w/ transducer	3.7	8.5	273.8 (10.78)	136.0 (5.35)	147.6 (5.81)	7.4 (16.3)	E28-06-EC4T

* NPT port threads. For BSPP threads , replace “0” in the part number with a “C”.

Valve De-actuated (ready-to-run):

The flow of inlet air pressure to the inlet chamber of the main valve internals is restricted by a fixed orifice and an adjustable flow control as well as an air piloted 2-way normally closed poppet valve. The flow of inlet air pressure into the crossover passages is restricted by the size of the passage between the stem and the valve body opening. Flow is sufficient to quickly pressurize pilot supply / timing chambers 1 and 2. The inlet poppets prevent air flow from crossover passages into the outlet chamber. Air pressure acting on the inlet poppets and return pistons securely hold the valve elements in the closed position. (Reset adapter omitted for clarity.)

The green "Status" LED will be illuminated indicating the valve is ready to run.

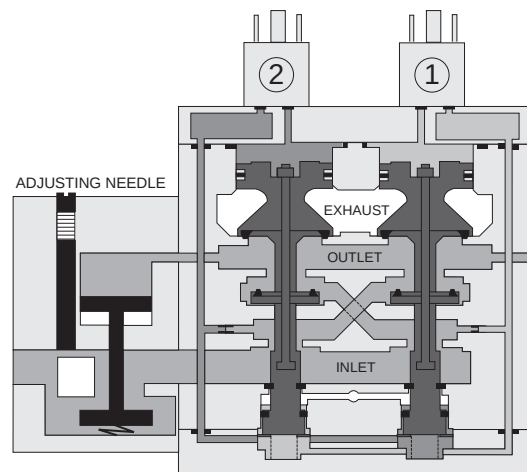
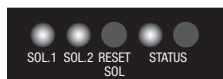


Valve Actuated:

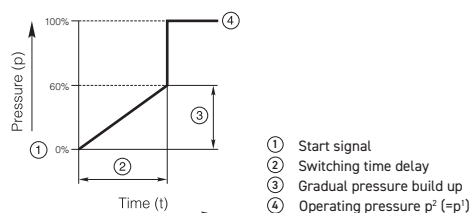
Energizing the pilot valves simultaneously applies pressure to both pistons, forcing the internal parts to move to their actuated (open) position, where inlet air flow to crossover passages is fully open, inlet poppets are fully open and exhaust poppets are fully closed. The outlet is then pressurized at a rate allowed by the fixed orifice and the adjusted flow control. Once the air pressure in the outlet chamber reaches approximately 60% of inlet pressure, the air piloted 2-way normally closed poppet valve opens fully and the pressure in the inlet, crossovers, outlet, and timing chambers are quickly equalized. The adjustable flow control will control the time it takes for the outlet air pressure to reach approximately 60% of inlet pressure.

De-energizing the pilots quickly causes the valve elements to return to the ready-to-run position.

Solenoid 1, Solenoid 2 and the green "Status" LED's will be illuminated indicating the valve is operating properly.



Soft Start Function:

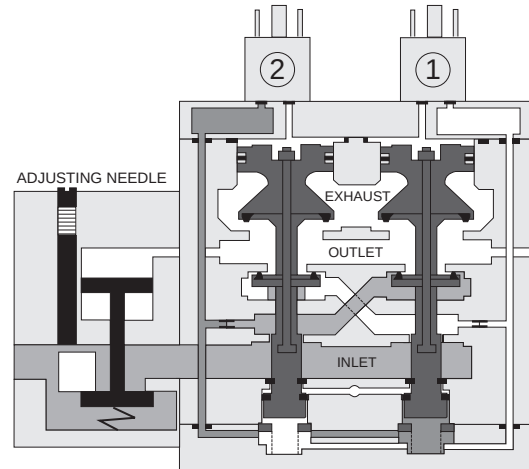
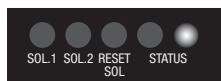


Valve Fault and Lock-out:

Whenever the valve elements operate in a sufficiently asynchronous manner, either on actuation or de-actuation, the valve will move to a locked-out position. In the locked-out position, one crossover and its related timing chamber will be exhausted, and the other crossover and its related timing chamber will be fully pressurized. The valve element (side 2) that is partially actuated has pilot air available to fully actuate it, but no air pressure on the return piston to fully de-actuate the valve element.

Air pressure in the crossover acts on the differential of side 2 stem diameters creating a latching force. Side 1 is in a fully closed position, and has no pilot air available to actuate, but has full pressure on the inlet poppet and return piston to hold the element in the fully closed position. Inlet air flow on side 1 into its crossover is restricted, and flows through the open inlet poppet on side 2, through the outlet into the exhaust port, and from the exhaust port to atmosphere. Residual pressure in the outlet is less than 1% of inlet pressure. The return springs are limited in travel, and can only return the valve elements to the intermediate (locked-out) position. Sufficient air pressure acting on the return pistons is needed to return the valve elements to a fully closed position.

The red "Status" LED will be illuminated indicating the valve in fault and lock-out must be reset



Valve Reset (electrical or manual):

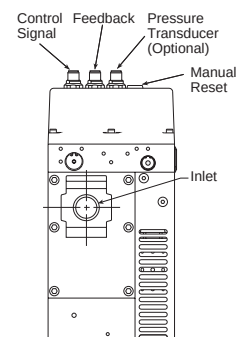
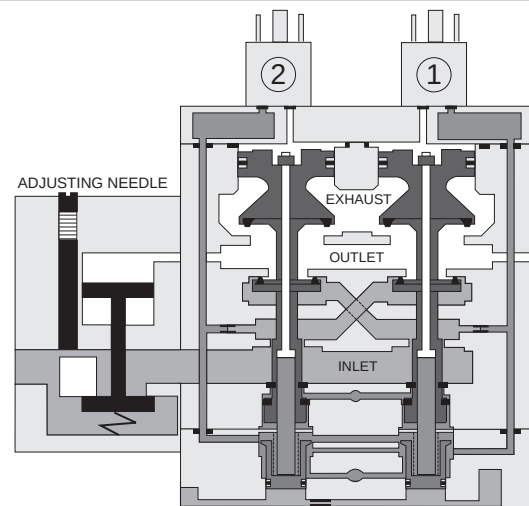
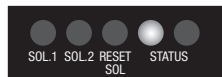
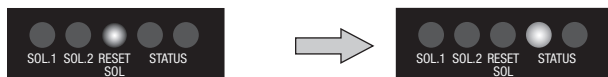
The reset procedure is as follows:

- Remove the electrical signals to the main coils
- Ensure there is air supplied to the valve
- Energize the reset solenoid for a minimum of 200 ms
- Allow a 200 ms delay after de-energizing the reset solenoid and re-energizing the main solenoids

The valve will remain in the locked-out position, even if the inlet air supply is removed and re-applied.

A remote reset signal must be applied to reset the valve. A momentary, remote electrical signal must be applied to the reset solenoid to apply pressure to the reset pistons in the valve. Actuation of the reset piston physically pushes the main valve elements to their closed position. Inlet air fully pressurizes the crossovers and holds the inlet poppets on seat. Actuation of the reset piston opens the reset poppet, thereby, immediately exhausting pilot supply air, thus, preventing valve operation during reset (Reset adapter added to illustration.). De-actuation of reset pistons causes the reset poppets to close and pilot supply to fully pressurize. Reset air pressure is applied by a 3/2 normally closed solenoid, or a manual push button mounted on the reset adapter in the top valve cover.

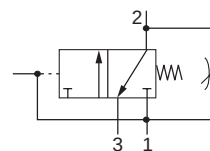
The green "Status" LED will be illuminated once the valve is reset.



Combined Soft-Start Dump Valve & Remote Operated Dump Valve E90



Symbol



 = "Most Popular"

- Modular design with 3/4" & 1" integral ports (BSPP or NPT)
- Provides for the safe introduction of pressure
- Automatically dumps downstream pressure on the loss of pilot signal
- Adjustable slow start
- Solenoid or air pilot options
- High flow & exhaust capability

90 Series Combined Soft Start / Dump Valves, provide for the safe introduction of pressure to machines or systems. Soft Start / Dump Valves when set, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

The controlled introduction of pressure can be an important safety factor and prevent damage to tooling when air pressure is introduced at machine or system start up.

E90	-	0		6	-	E	C	0	0
Series		Thread type*		Port size		Actuator option	Option		
High flow emergency stop valve with slow start E90		NPT 0		3/4 6		E Solenoid	C 24VDC		
		BSPP C		1 8		A Air pilot	0 None		

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Bold items are most common.

Ordering information

Port size	Description	Flow scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number †
3/4"	Air pilot operated	371	17.5 (254)	-10 (14)	60 (140)	145 (5.71)	90 (3.5)	104 (4.1)	1.4 (3.1)	E90-06-A000
3/4"	24VDC 30mm coil	371	16 (232)	-10 (14)	60 (140)	130 (5.12)	90 (3.5)	104 (4.1)	1.6 (3.5)	E90-06-EC00
1"	Air pilot operated	424	17.5 (254)	-10 (14)	60 (140)	130 (5.12)	90 (3.5)	104 (4.1)	1.4 (3.1)	E90-08-A000
1"	24VDC 30mm coil	424	16 (232)	-10 (14)	60 (140)	130 (5.12)	90 (3.5)	104 (4.1)	1.6 (3.5)	E90-08-EC00

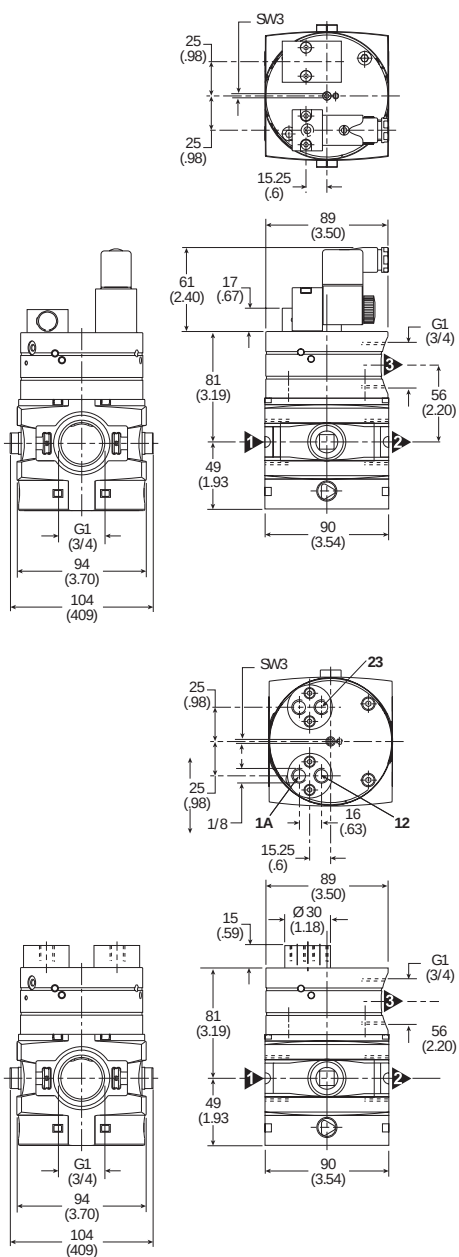
† Standard part numbers shown in bold. For other models refer to Options chart above.

Specifications

Fluid	Compressed air
Max. pressure solenoid operated 30mm coil	16 bar (232 psig)
Minimum operating pressure	2 bar (29 psig)
Temp. range* solenoid operated	-10°C to 60°C (14°F to 140°F)
Temp. range* air pilot operated	-10°C to 60°C (14°F to 140°F)
Air pilot port	1/8"
Exhaust port	1"
Gauge port	1/4"

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35.6°F)
Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure

Dimensions mm (inches)

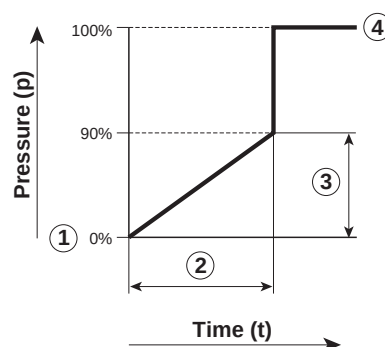


Material specifications

Body	Aluminum
Body cover	ABS
Valve	Brass / NBR composite
Pilot valve booster	Aluminum
Seals	Nitrile NBR

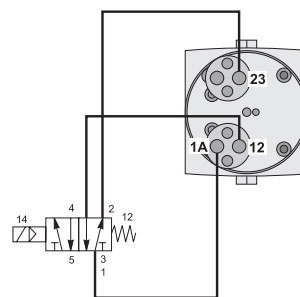
Note: For solenoid coil and cable plug options see page 24.

Flow characteristics

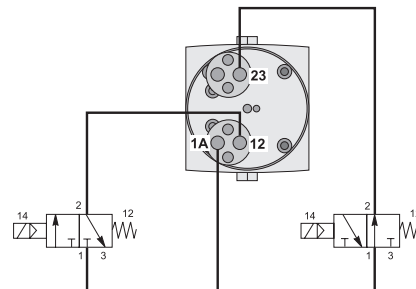


- ① Start signal
- ② Switching time delay
- ③ Gradual pressure build up
- ④ Operating pressure $p^2 (= p^1)$

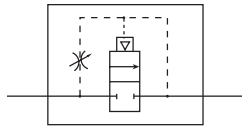
Combined start / stop function



Combined start / stop function with acknowledgement



Slow Start Valve S18 / S28

 = "Most Popular"

S18-02-A000

Specifications

Flow Capacity*	S18 1/4	95 SCFM (44.8 dm ³ /s)
	3/8	101 SCFM (47.6 dm ³ /s)
	1/2	113 SCFM (53.3 dm ³ /s)
	S28 3/8	196 SCFM (92.5 dm ³ /s)
	1/2	210 SCFM (99.0 dm ³ /s)
	3/4	230 SCFM (108.5 dm ³ /s)
Maximum Flow Rate Across Needle Valve		12 SCFM (5.7 dm ³ /s)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Maximum Supply Pressure		150 PSIG (10.3 bar)
Minimum Operating Pressure		30 PSIG (2.1 bar)
Port Size	NPT / BSPP-G	S18 1/4, 3/8, 1/2
		S28 3/8, 1/2, 3/4
Weight	lb. (kg)	S18 .93 (.42)
		S28 1.16 (.53)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Features

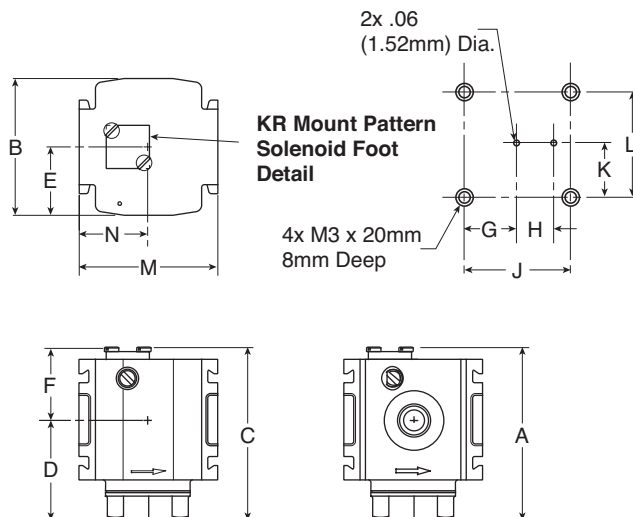
- Can Reduce the Possibility of Equipment or Part Damage and Occupational Hazard to the Worker
- Volume Dependent Devices
- Air-Piloted
- Modern Design and Appearance

Materials of Construction

Body	Aluminum
Bottom Plug	33% Glass-Filled Nylon
Valve Assembly	Brass / Nitrile
Springs	Music Wire
Seals	Nitrile

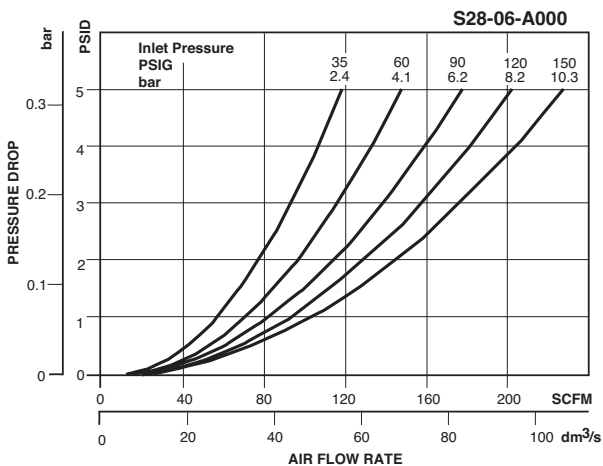
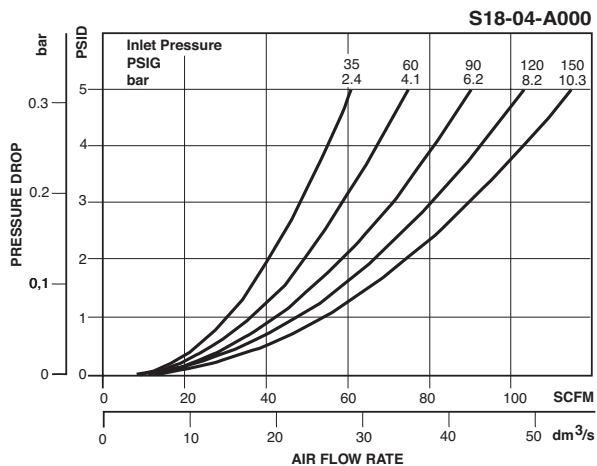
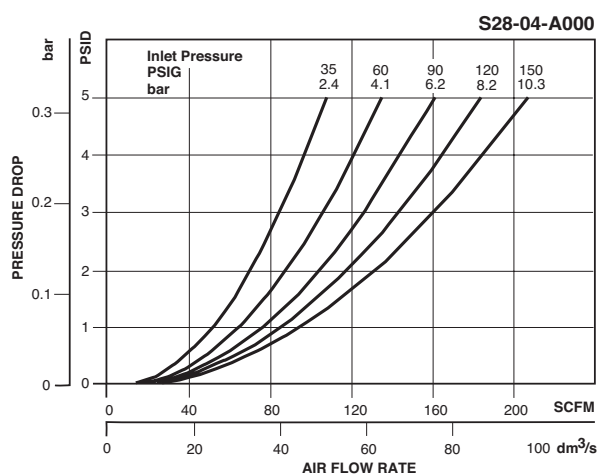
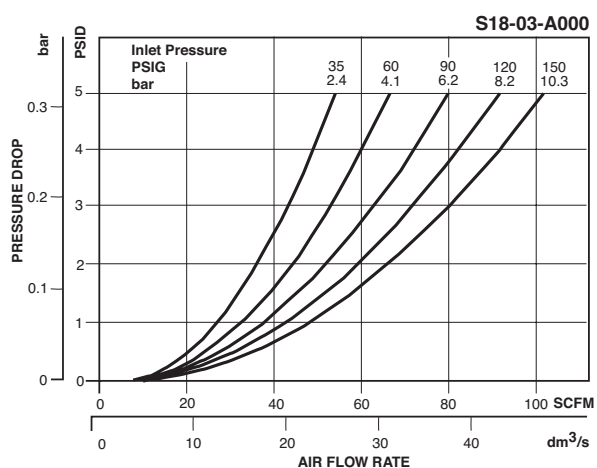
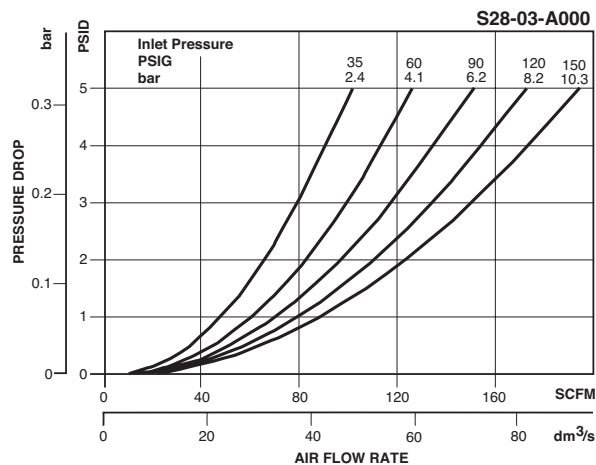
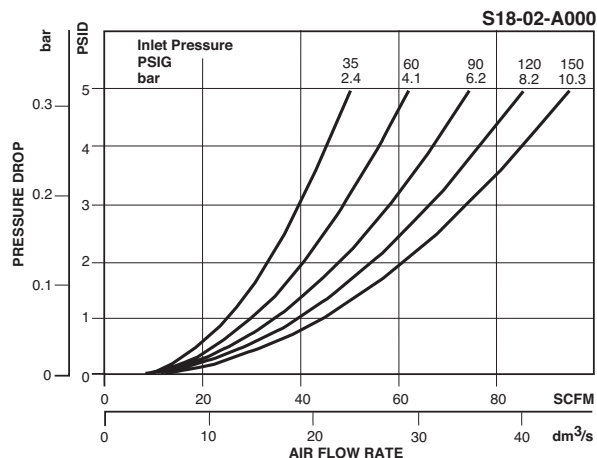
Replacement Kit

Valve Assembly Kit.....VRP-96-927



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H	J	K	L	M	N
Standard Unit S18-XX-A000		2.94 (75)	2.36 (60)	2.94 (75)	1.71 (43.5)	1.18 (30)	1.23 (31)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)	2.36 (60)	1.18 (30)
Standard Unit S28-XX-A000		3.03 (77)	2.88 (73)	3.03 (77)	1.79 (45.5)	1.44 (36.5)	1.24 (31)	0.28 (7.0)	0.18 (4.6)	0.55 (14)	0.28 (7.0)	0.55 (14)	2.88 (73)	1.44 (36.5)

 = "Most Popular"


Ordering Information

Model Type	Port Size	Internal Air Pilot Minimum Flow 12 SCFM (5,6 dm³/s)
S18	1/4	S18-02-A000
	3/8	S18-03-A000
	1/2	S18-04-A000
S28	3/8	S28-03-A000
	1/2	S28-04-A000
	3/4	S28-06-A000

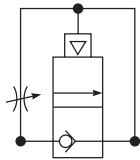
Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Slow Start Valve
S90

= "Most Popular"



Symbol



- Integral 3/4" or 1" ports
- Smooth start-up of pneumatic system
- Air pilot operation
- Adjustable slow start
- High flow

S90

-

0

6

-

A

0

0

0

Series
Soft Start Valve S90

Thread type*
NPT 0
BSPP C

Port size
3/4 6
1 8

Function
Air Pilot A

***Note:** For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Ordering information

Port size	Description	Flow scfm	Max. bar (psig)	Min temp °C (°F)	Max temp °C (°F)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number †
3/4"	Soft start valve	324	17.5 (253.8)	-10 (14)	60 (140)	85 (3.3)	90 (3.5)	97 (3.8)	.8 (1.8)	S90-06-A000
1"	Soft start valve	324	17.5 (253.8)	-10 (14)	60 (140)	85 (3.3)	90 (3.5)	97 (3.8)	.8 (1.8)	S90-08-A000

† Standard part numbers shown in bold. For other models refer to Options chart above.

Specifications

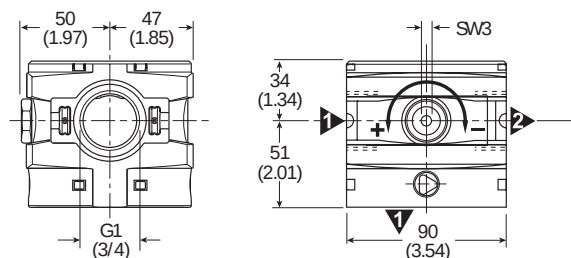
Fluid	Compressed air
Max. pressure air pilot operated	17.5 bar (254 psig)
Minimum operating pressure	2 bar (29 psig)
Temp. range* solenoid operated	-10°C to 60°C (14°F to 140°F)
Temp. range* air pilot operated	-10°C to 60°C (14°F to 140°F)

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35.6°F)
 Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure

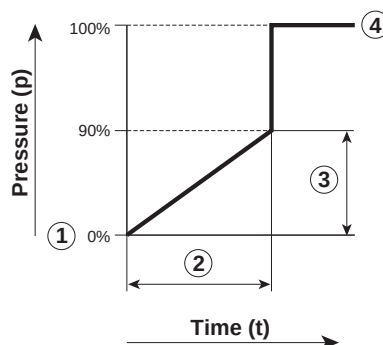
Material specifications

Body	Aluminum
Body cover	ABS
Valve	Brass / NBR composite
Pilot valve booster	Aluminum
Seals	Nitrile NBR

Dimensions mm (inches)

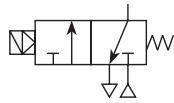


Flow characteristics



- ① Start signal
- ② Switching time delay
- ③ Gradual pressure build up
- ④ Operating pressure $p^2 (= p')$

Dump Valves Q09 / Q19



 = "Most Popular"



Q09-02-2E000



Q19-02-2E000

Features

- Modular Design with 1/4" or 1/2" Integral Ports (NPT, BSPP & BSPT)
- Provides for the Safe Introduction of Pressure
- The 3-way, 2-position Function Automatically Dumps Downstream Pressure on the Loss of Pilot Signal
- Solenoid or Air Pilot Options
- High Flow & Exhaust Capability
- Silencer Included

Specifications

Flow Capacity*	Q09 1/4	36 SCFM (17 dm ³ /s)
	Q19 1/2	108 SCFM (51 dm ³ /s)
Max. Pressure Solenoid operated	150 PSIG (10 bar)	
Max. Pressure Air Pilot operated	250 PSIG (17 bar)	
Min. Operating Pressure	44 PSIG (3 bar)	
Temperature Max.† Solenoid Operated	14°F to 122°F (-10°C to 50°C)	
Temperature Max.† Air Pilot Operated	-4°F to 176°F (-20°C to 80°C)	
Air Pilot Port	1/8"	
Exhaust Port	Q09 - 1/4" / Q19 - 1/2"	
Weight	1/4" 120VAC	0.8lbs (0.37kg)
	1/4" 24VDC	0.9lbs (0.41kg)
	1/4" Air Pilot	0.8lbs (0.37kg)
	1/2" 120VAC	1.5lbs (0.69kg)
	1/2" 24VDC	2.0lbs (0.91kg)
	1/2" Air Pilot	1.9lbs (0.87kg)

* Inlet pressure 91 PSIG (6.3 bar). Pressure drop 15 PSID (1 bar).

† Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure

Materials of Construction

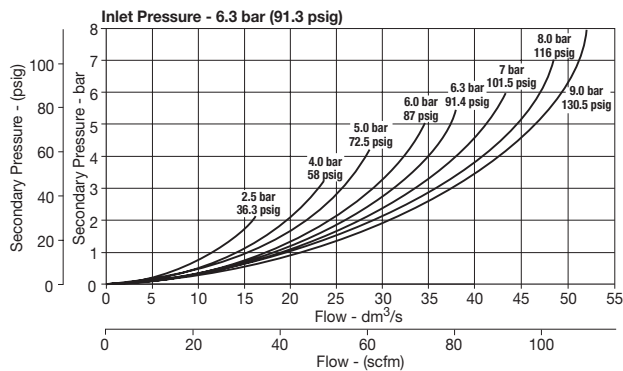
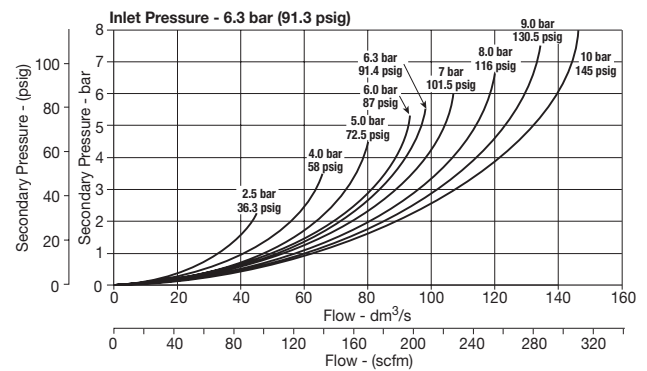
Body	Aluminum
Body Cover	Polyester
Seals	Nitrile NBR

Mounting Brackets

Description	Order code Q09	Order code Q19
L-Bracket mounting kit	P3HKA00ML	P3KKA00ML
Foot bracket mounting kit	P3HKA00MC	P3KKA00MC

Ordering Information

Model Type	Port Size	Description	Order Code
Q09	1/4"	120VAC Solenoid & cable plug	Q09-02-ED00
	1/4"	24VDC Solenoid & cable plug	Q09-02-EC00
	1/4"	External air pilot operated	Q09-02-A000
Q19	1/2"	120VAC 30mm coil & cable plug incl.	Q19-04-ED00
	1/2"	24VDC 30mm coil & cable plug incl.	Q19-04-EC00
	1/2"	External air pilot operated	Q19-04-A000

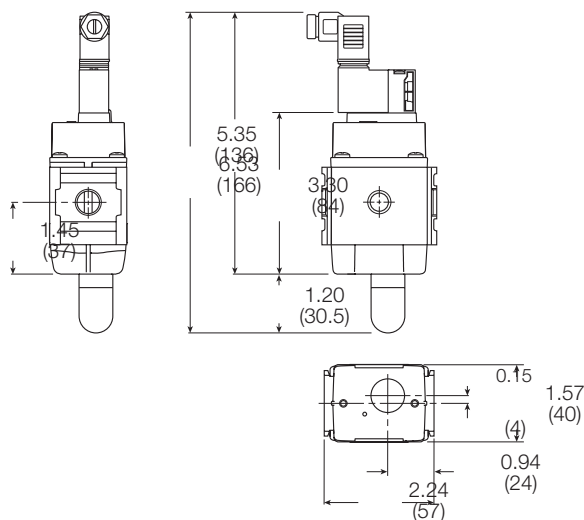
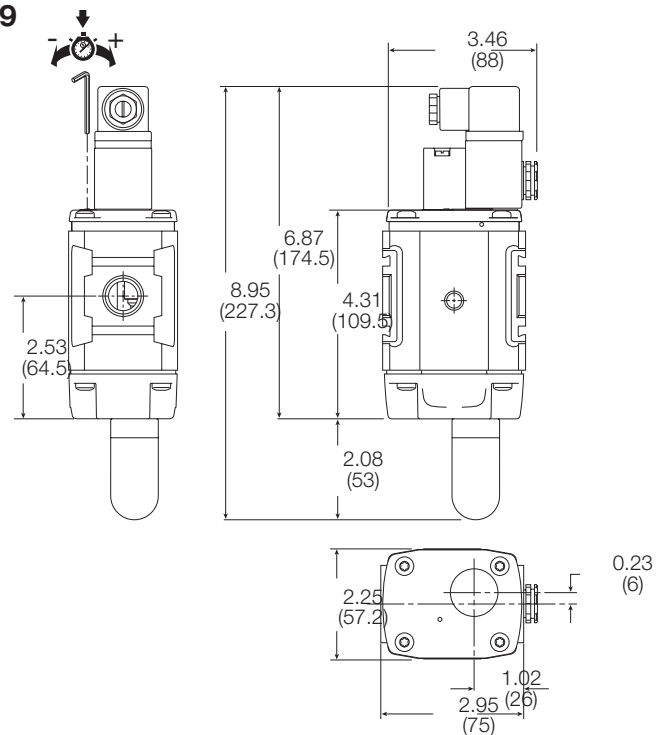
 = "Most Popular"
1/4 Remote Dump Valve**1/2 Remote Dump Valve**

Remotely operated dump valves automatically shut off upstream pressure and exhaust the downstream pressure when the pilot pressure is released.

To maintain these units in the open position a pilot supply to the air pilot operated version or an electrical signal to the solenoid operated version must be maintained. The valve will automatically dump when the holding signal is removed.

Dimensions

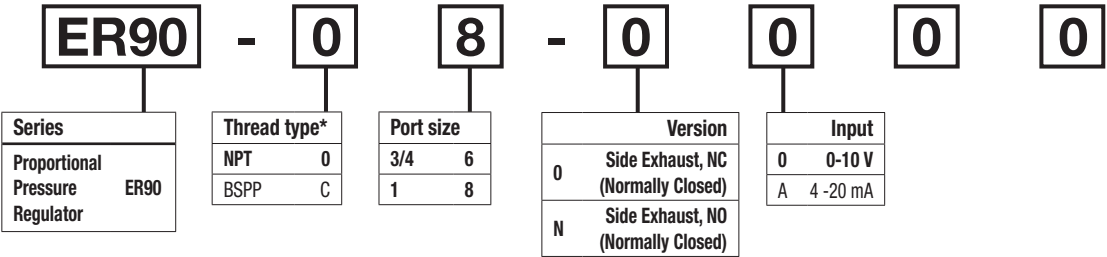
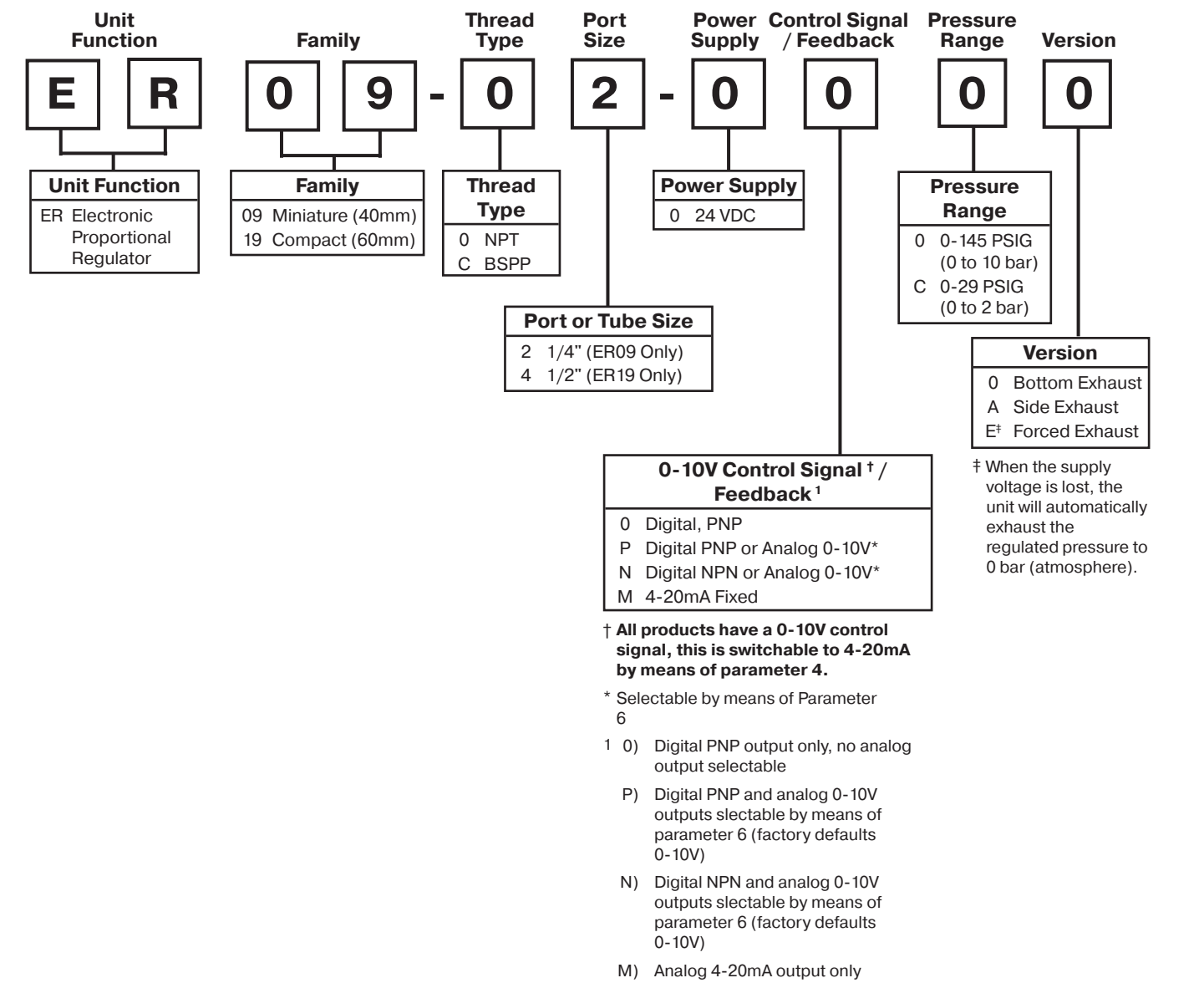
inches (mm)

Q09**Q19**

Electronic Proportional Regulator

Numbering System

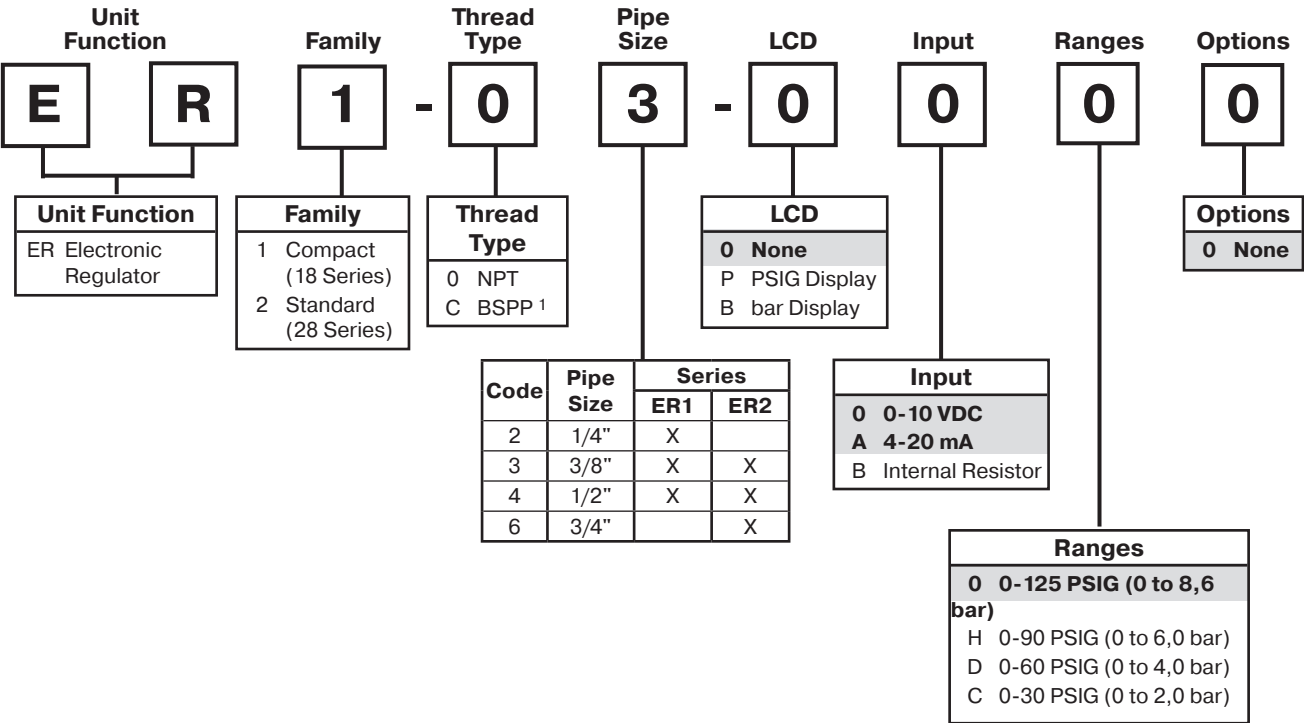
= "Most Popular"



*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.

Electronic Regulator Numbering System

= "Most Popular"



¹ ISO, R228 (G Series)

Electronic Proportional Regulator ER09, ER19

 = "Most Popular"
**ER09****ER19**

Features

- Very fast response times
- Accurate output pressure
- Micro parameter settings
- Selectable I/O parameters
- Quick, full flow exhaust
- LED display indicates output pressure
- No air consumption in steady state
- Multiple mounting options
- Protection to IP65

Ordering Information

Port Size	Order Code	Control Signal	Output Signal	Output Pressure
1/4	ER09-02-00C0	0 - 10 V	Digital PNP Only	0-29 PSIG (0 -2 bar)
1/4	ER09-02-0000	0 - 10 V	Digital PNP Only	0-145 PSIG (0 -10 bar)
1/4	ER09-02-0PC0	0 - 10 V	Digital PNP or 0-10V	0-29 PSIG (0 -2 bar)
1/4	ER09-02-0P00	0 - 10 V	Digital PNP or 0-10V	0-145 PSIG (0 -10 bar)
1/4	ER09-02-0NC0	0 - 10 V	Digital NPN or 0-10V	0-29 PSIG (0 -2 bar)
1/4	ER09-02-0N00	0 - 10 V	Digital NPN or 0-10V	0-145 PSIG (0 -10 bar)
1/4	ER09-02-0MC0	0 - 10 V	4-20mA Analog Only	0-29 PSIG (0 -2 bar)
1/4	ER09-02-0M00	0 - 10 V	4-20mA Analog Only	0-145 PSIG (0 -10 bar)

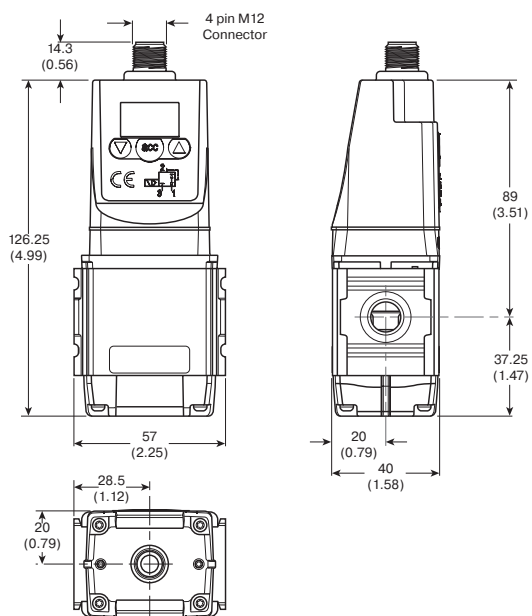
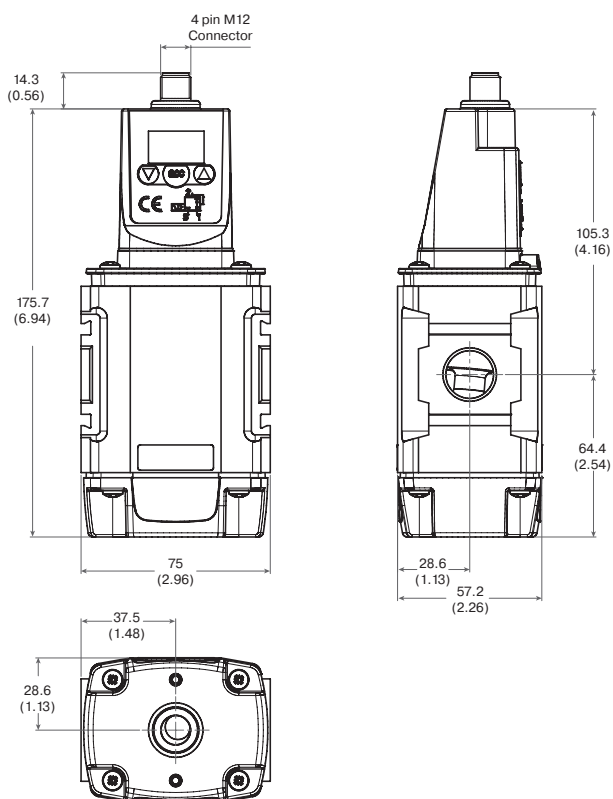
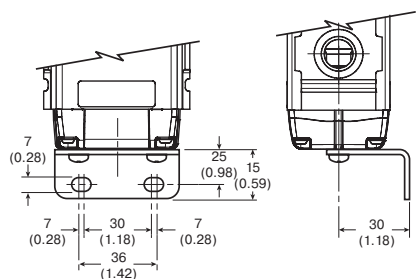
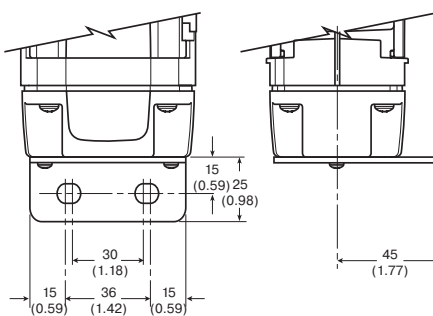
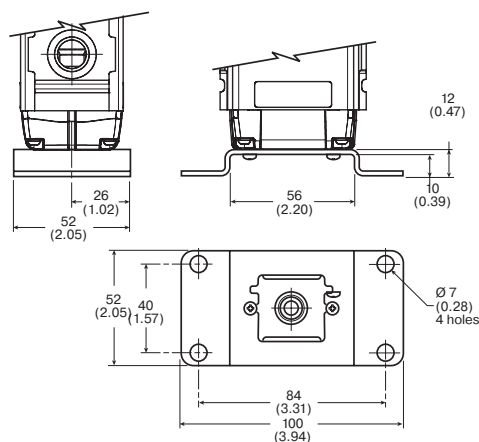
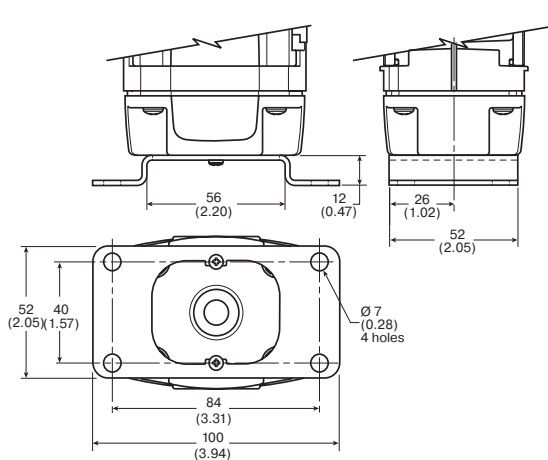
1/2	ER19-04-00C0	0 - 10 V	Digital PNP Only	0-29 PSIG (0 -2 bar)
1/2	ER19-04-0000	0 - 10 V	Digital PNP Only	0-145 PSIG (0 -10 bar)
1/2	ER19-04-0PC0	0 - 10 V	Digital PNP or 0-10V	0-29 PSIG (0 -2 bar)
1/2	ER19-04-0P00	0 - 10 V	Digital PNP or 0-10V	0-145 PSIG (0 -10 bar)
1/2	ER19-04-0NC0	0 - 10 V	Digital NPN or 0-10V	0-29 PSIG (0 -2 bar)
1/2	ER19-04-0N00	0 - 10 V	Digital NPN or 0-10V	0-145 PSIG (0 -10 bar)
1/2	ER19-04-0MC0	0 - 10 V	4-20mA Analog Only	0-29 PSIG (0 -2 bar)
1/2	ER19-04-0M00	0 - 10 V	4-20mA Analog Only	0-145 PSIG (0 -10 bar)

Materials

Magnet Core	Steel
Solenoid Valve Poppet	FPM
Solenoid Valve Housing	Techno Polymer
Regulator Body (ER09 / ER19)	Aluminum
Regulator Top Housing	Nylon
Valve Head	Brass & NBR
Remaining Seals	NBR

Accessories

Cable (M12, 4-Pin connection w/2m cable) ..CB-M12-4P-2M	
DIN Rail Mounting Kit – ER09	P3HKA00ML
Foot Bracket Mounting Kit – ER09	P3HKA00MC
L-Bracket Mounting Kit – ER19	P3KKA00ML
Foot Bracket Mounting Kit – ER19	P3KKA00MC
Seal Kit (valve seat, cover seal)	3538200
Valve Kit (2 valves, screws, cover seal)	3538100

ER09 Bottom Exhaust Version**ER19 Bottom Exhaust Version****L-Bracket****L-Bracket****Foot Bracket****Foot Bracket**

Dimensions are in mm (Inches)

Man-Machine Interface

High Visibility LED Display
Easy to Read Characters
All Controls on the Same Face

Energy Saving

Low Watt Power Consumption
No Unnecessary Loss of Air in
Steady State

Total Flexibility

User Friendly and Easily
Accessible Software Controls
One Basic Unit Suits All
Customer Requirements -
0-10V Control Signal Standard
4-20mA Control Signal Software
Selectable
Modular Mounting
10 bar & 2 bar Version

Special Applications

Clean Line Design
Suitable for Washdown: IP65
Forced Exhaust Option Available
4 Output Signal Versions Available

Compact and Light Weight

40 & 60 mm Body Sizes
Light Weight Aluminum Bodies

Flexible Mounting Options

Stand-alone or Modular Mounting
Foot Bracket Mounting
DIN-Rail Mounting

**Outstanding Performance**

Very Fast Response Times
Full Flow Exhaust
Excellent Linearity
High Flow

Generic Industries



The new Proportional Regulator is designed to quickly and accurately adjust and maintain a set output pressure.

The unit will operate regardless of flow, in response to an electronic control signal. The media can be compressed air or an inert gas.

Applications for this technology are virtually unlimited; from paint spray control, paper manufacturing and printing to weaving and laser cutting control; in fact anywhere that requires accurate remote pressure control.

Automation

In the field of general automation, the need to control processes or movement via electronic signals is of paramount importance. The Proportional Regulator unit provides the facility to incorporate pressure control into a fully integrated control system.



Packaging and Food



The Packaging and Food industry provides another ideal area for application of the Electronic Proportional Regulator, where fine control of tension on wrapping foils and paper is required. The degree of control and the ability to manually change parameters makes this unit ideally suited to the varying requirements of this industry.

Automotive

Applications for this innovative product in the Automotive industry can be seen in major manufacturers' "body-in-white" lines.

The control of clamping and welding forces during panel assembly is an ideal application, also accurate control in paint dipping and spraying can be achieved.



Why Proportional Technology ?

The Difference Between Open or Closed Circuit Control

Standard pressure regulators go a long way towards meeting customers needs. In most cases these regulators work well in general pneumatic and automation applications. However, sometimes the application calls for more precise pressure control. The effects of time, cycling, input, back pressure or pressure and flow variation can all cause inconsistencies in pneumatic systems. Proportional Regulators are designed to eliminate those inconsistencies.

Open Control Circuit

In a normal pressure regulated control system, the inlet pressure (p_1) is converted into the output pressure (p_2) by the regulator. The set pressure (set value) is usually manually set by adjusting the control knob and in normal circumstances the regulator maintains the output pressure (actual value).

No facility for monitoring the output pressure is provided and there is consequently no way of checking that the set value and the actual value are the same. Also, no account is taken of external influences such as air consumption by the system, which can drastically alter the actual value.

Closed Loop Control Circuit

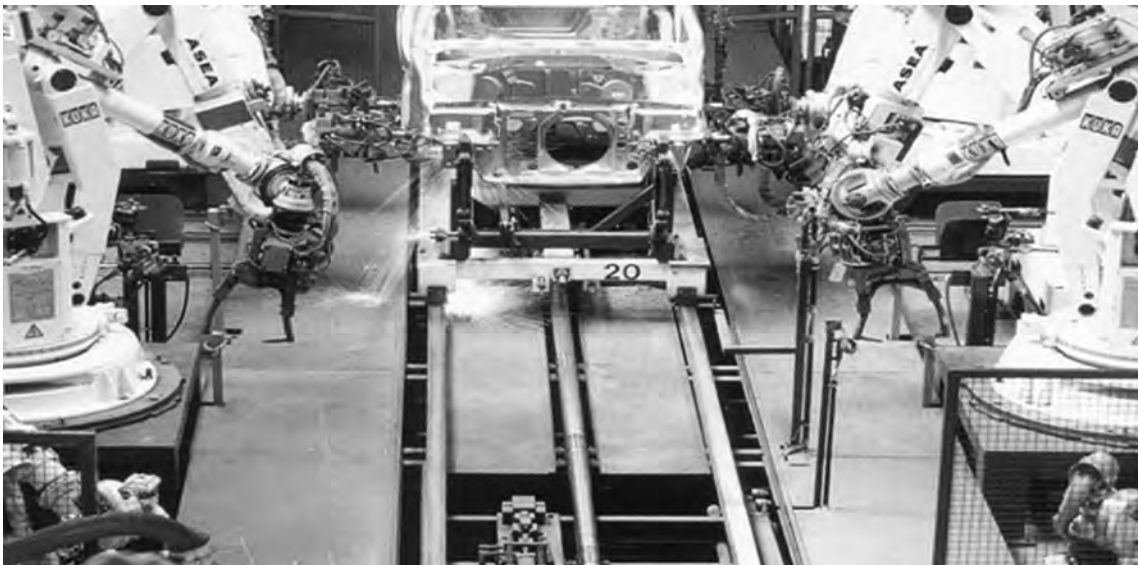
The input signal (Electronic Control Signal) is converted into the output value (P2 Output Pressure). This output value is continuously measured and compared with the input signal. If they are different, the unit adjusts the output value to correspond to the set value, to close the loop.

Proportional Pressure Regulators

The Proportional Regulators provide all the advantages of a closed circuit regulated system. When a set value is defined via the input signal (e.g. 0-10 V), the pressure regulator sets the corresponding output pressure (e.g. 0-150 PSI/0-10 bar). At the same time the integrated pressure sensor measures the actual pressure at the unit's outlet (actual value).

If the electronic regulation system finds that the actual value has deviated from the set value, it immediately corrects the actual value. This is a continuous process ensuring fast, accurate pressure regulation.

Typical Application in Automotive Body in White Welding Pressure Control



Pneumatics

Working Media

Compressed air or inert gasses, filtered to 40μ.

Operating Pressure

	Max. Operating Pressure
2 bar unit	3 bar (43.5 PSI)
10 bar unit	10.5 bar (152 PSI)
Min. Operating Pressure	P2 Pressure + 0.5 bar (7.3 PSI)

Pressure Control Range

Available in two pressure ranges, 0-2 bar (0-29 PSI) or 0-10 bar (0-145 PSI). Pressure range can be changed through the software at all times. (parameter 19)

Temperature Range

32°F to 122°F (0°C to 50°C)

Weight

ER09	0.64 lbs (.291 kg)
ER19	1.42 lbs (.645 kg)

Air Consumption

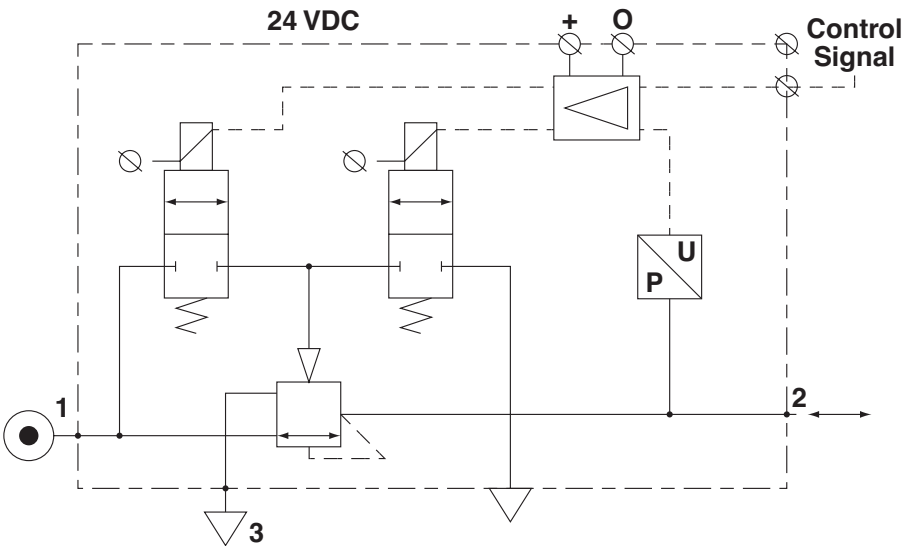
No consumption in stable regulated situation.

Display

The regulator is provided with a digital display, indicating the output pressure, either in PSI or bar.

The factory setting is as indicated on the label, can be changed through the software at all times (parameter 14).

Schematic



Electronics

Supply Voltage

24 VDC +/- 10%

Power Consumption

1.1 W with unloaded signal outputs

Current Consumption

Max. 200 mA with no load

Control Signals

The electronic pressure regulator can be externally controlled through an analog control signal of 0-10 V, adjustable to 4-20 mA via parameter 4.

Connections

Central M12 male connector 4-pole.

The electrical connections are as follows:

Pin No.		Function	Color
1	24 V	Supply	Brown
2	0 to 10 V	Control Signal Ri = 100k Ω	White
	4 to 20mA	Control Signal Ri = 500 Ω	
3	0 V (GND)	Supply	Blue
4	24 V	Alarm Output Signal	Black

Technical Information

Dead Band

The dead band is preset at 1.3% of Full Scale*, adjustable via parameter 13.

Accuracy

Linearity = < 0.3% of Full Scale.*

Proportional Band

The proportional band is preset at 10% of Full Scale.*

Fail Safe Operation

- If the ER09 / ER19 unit has an “0” or “A” in the 12th digit of the model number
 - When the supply voltage drops, the electronic control reverts to the fail safe mode. The last known output pressure is maintained at approximately the same level depending upon air consumption. The digital display indicates the last known pressure setting.
 - When the supply voltage is reinstated to the correct level, the valve moves from the fail safe mode and the output pressure immediately follows the control signal requirement. The display indicates the actual output pressure.
 - Note: In the event of loss of both power and inlet pressure the unit will exhaust downstream pressure.
- If the ER09 / ER19 unit has an “E” in the 12th digit of the model number
 - When the supply voltage drops, the electronic control reverts to “Forced Exhaust Mode” and will automatically exhaust the downstream (regulated) pressure.
 - When the supply voltage is reinstated to the correct level the unit will return to normal operation and follows the control signal requirement. The display indicates the actual pressure.
- If the unit has been programmed in manual mode (not with a control signal) the unit will EXHAUST and the regulator will need to be reset when power is applied.

Full Exhaust

Complete exhaust of the regulator is defined as $P_2 \leq 1\% \text{ Full Scale}$

* Full Scale (F.S.)

For 2 bar versions this will be 2 bar, for the 10 bar version full scale will be 10 bar.

Degree of Protection

IP65

EU Conformity

CE: standard

EMC: according to directive 89/336/EEC

The new pressure regulator is in accordance with:

EN 61000-6-1:2001

EN 61000-6-2:2001

EN 61000-6-3:2001

EN 61000-6-4:2001

These standards ensure that this unit meets the highest level of EMC protection.

Mounting Position

Preferably vertical, with the cable gland on top.

Advanced Functionality

Pilot Valve Protection

When the required output pressure can not be achieved due to lack of input pressure, the unit will open fully and will display “NoP”. Approximately every 10 seconds the unit will retry. The output pressure will then be approximately equal to the inlet pressure. As soon as the input pressure is back on the required level, the normal control function follows.

Safety Exhaust

Should the control signal fall below 0.1 volts, the valve will automatically dump downstream system pressure.

Input Protection

The unit has built-in protection against failure and burnout resulting from incorrect input value, typically:

The 24v DC supply is connected to the setpoint input, the display will show ‘OL’, as an overload indication. The unit will need to be rewired and when correctly connected will operate normally.

The overload indicator ‘OL’ will also appear should the wrong input value be applied or the wrong input value be programmed: 4 - 20m instead of 0 - 10V. To correct this a different set point value should be input or the unit reprogrammed to correct the set point value acceptance. (via parameter 4).

Response Times

Response time	ER09	ER19
2 to 4 bar	25 msecs	35 msecs
1 to 6 bar	55 msecs	135 msecs
4 to 2 bar	70 msecs	85 msecs
6 to 1 bar	80 msecs	225 msecs

To fill volume of:

100cm³ - ER09

330cm³ - ER19

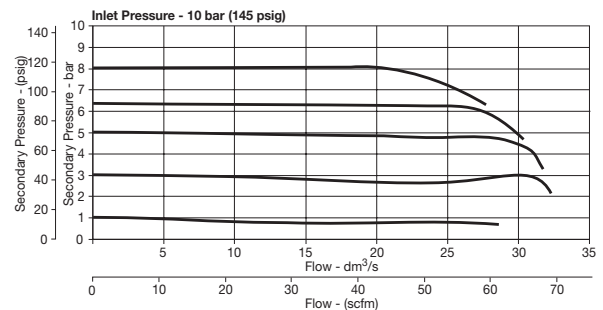
connected to the outlet of the regulator.

Settings

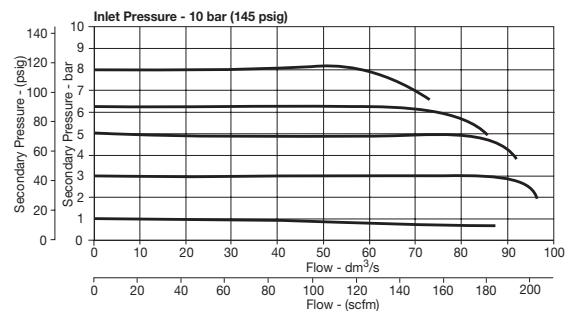
The regulator is pre-set at the factory. If required, adjustments can be made.

Flow Charts

ER09 Regulator 1/4” Ports



ER19 Regulator 1/2” Ports



How to Change Parameters

Pressing the Accept key “acc” for more than 3 seconds, will activate parameter change mode. The user can then select the parameters by pressing up or down key. (display will show Pxx). When parameter number is correct, pressing accept again will enter parameter number. (display will show parameter value).

Pressing the up or down key will change the parameter itself. (display will flash indicating parameter editing mode). Pressing the accept key will accept the new parameter value. (all digits will flash whilst being accepted).

After releasing all keys, the next parameter number will be presented on the display. (you may step to the next parameter). When no key is pressed, after 3 seconds the display will show the actual output pressure.

When the unit is initially powered up allow approximately 10 seconds for the unit to “boot-up” before changing parameter settings.

Only parameter numbers 0, 4, 6, 8, 9, 14, 18, 19, 20, 12, 13 and 21 are accessible to edit. All other parameters are fixed.

Manual mode:

When keys DOWN and UP are pressed during startup, (connecting to the 24V power supply) manual mode is activated. This means that the user is able to in/decrease the output pressure of the regulator, by pressing the UP or DOWN key. During this action the display will blink, indicating that the manual mode is activated. After powering up again, the unit will revert back to normal mode.

Back to Factory Setting

After start up. (Power is on)

Entering this value in parameter 0 will store the calibrated factory data into the working parameters.

(Default calibration data is used)

Parameter Number 0 – Reset Back to Factory Settings

Step	1	2	3	4	5	
Press 	 3-6 seconds	 or 		 or 		
Until Display Reads			 Flashing Decimal	 Flashing Decimal	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 0.	Displays current parameter value.	Edits parameter. 3 = standard factory settings. If other than 3, use Up or Down Arrow and accept 3	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Control Signal

The unit is factory set for 0-10 V control signal. If 4-20 mA control signal is required, change parameter 4.

Parameter Number 4 – Set Control Signal in Volts or Milliamps

Step	1	2	3	4	5	
Press 	 3-6 seconds	 or 		 or 		
Until Display Reads			 Flashing Decimal	 Flashing Decimal	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 4.	Displays current parameter value. 1 = V 0 = mA	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Output Signal

Parameter 6 is used to set the type of output signal to your PLC.

This parameter is used as follows:

Output Signal option "0" = Digital Output – PNP

- Factory set at "0" Non Adjustable

Output Signal option "P" = Digital PNP or Analog 1-10V

- Factory set at "1" for Analog Signal
- Convert to Digital PNP by changing parameter to "0" setting

Output Signal option "N" = Digital NPN or Analog 1-10V

- Factory set at "1" Analog Signal
- Convert to Digital NPN by changing parameter to "0"

Output Signal option "M" = Analog 4-20 mA

- Factory set at "2" Non Adjustable

Parameter Number 6 – Set Output Signal

Step	1	2	3	4	5	
Press 	 3-6 seconds	 or 		 or 		
Until Display Reads			 Flashing Decimal	 Flashing Decimal (Value 0, 1 or 2)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 6.	Displays current parameter value. 1 = m factory default for P3H with analog options	Edits parameter. 0 = digital (NPN or PNP) 1 = analog 0..10V 2 = analog 4..20 mA	Accepts and saves new parameter setting.	Sequences to next parameter.

Adjust Span Analog Output Signal

Set value is a % of Full Analog range. As an example for a 0-10V output signal, the original factory setting of 100% will give you an adjustment of 0-10V. If you reset Parameter 8 to 50%, the new output range would be 0-5V or 50% of the full range.

In the event that the output signal is to low, in a certain application, you can adjust it by increasing Parameter 8 to a maximum value of 130% of scale.

Note that all values are nominal and that an actual measurement may be required to ensure signal strength.

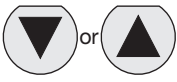
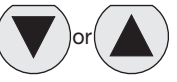
Parameter Number 8 – Adjust Span Analog Output Signal

Step	1	2	3	4	5	
Press 	 3-6 seconds	 or 		 or 		
Until Display Reads			 Flashing Decimal (For 2 bar versions value = 92)	 Flashing Decimal (Value between 0 and 130)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 8.	Displays current parameter value.	Edits parameter.	Accepts and saves new parameter setting and implements the new analog signal span.	Sequences to next parameter.

Adjust Digital Display

If necessary, adjustments can be made to the digital display when using an external pressure sensor.

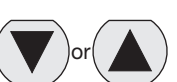
Parameter Number 9 – Adjust Digital Display Value (Pressure Calibration)

Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 9.	Displays current digital display	Use up or down arrows and accept to adjust the display value if using an external pressure sensor.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Pressure Scale

Units with NPT port threads are supplied with a factory set psig pressure scale. Use parameter 14 to change scale to bar.

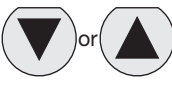
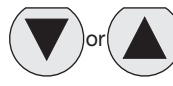
Parameter Number 14 – Set Pressure Scale in psig or bar

Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 14.	Displays current parameter value. 1 = psig 0 = bar 2 = MPA	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Preset Minimum Pressure

If there is a need for a pre-set Minimum pressure, use parameter 18. (Note: preset pressure is affected by % P19.)

Parameter Number 18 – Set Minimum Preset Pressure

Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal Displays current parameter value. Incremental value is: <u>2 bar unit:</u> x 2 mbar x % P19 <u>10 bar unit:</u> x 10 mbar x % P19	 Flashing Decimal (value between 0 and 200)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 18.	Displays current parameter value. Incremental value is: <u>2 bar unit:</u> x 2 mbar x % P19 <u>10 bar unit:</u> x 10 mbar x % P19	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Pressure Correction

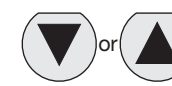
Pressure correction allows the user to set a Maximum pressure as a percentage of secondary pressure F.S.

Example: If F.S. is 10 bar, set parameter 19 to 50 for Maximum preset pressure of 5 bar.

Pressure correction also affects the Minimum preset pressure in parameter 18.

Example: If F.S. is 10 bar and parameter 18 is set to a value of 100 (1 bar), and parameter 19 is set to 50%, then the actual Minimum preset pressure seen is 0.5 bar.

Parameter Number 19 – Set Maximum Preset Pressure

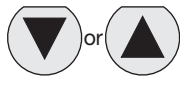
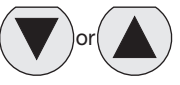
Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal (value between 0 and 100)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 19.	Displays current parameter value. Incremental value is: % of F.S.	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Behavior Control

The regulation speed of the pressure regulator can be modified by means of one parameter. (P 20)

The value in this parameter has a range from 0-5. A higher value indicates slower regulation speed, but will be more stable.

Parameter Number 20 – Set Behavior Control

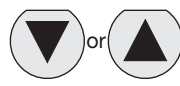
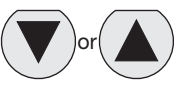
Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal (value between 0 and 5)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 20.	Displays current parameter value.	Edits parameter 0 = custom set* 1 = fastest (narrow proportional band) 2 = fast 3 = normal 4 = slow 5 = slowest (proportional band is broad)	Accepts and saves new parameter setting.	Sequences to next parameter.

* When the value 0 is entered, you are able to create your own custom settings true parameters 12, 13 and 21.

Fine Settings Set Proportional Band

Proportional band is used for setting the reaction sensitivity of the regulator. The displayed value is X 10 mbar and has a range between 50 (0.5 bar) and 250 (2.5 bar).

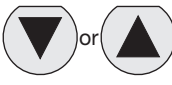
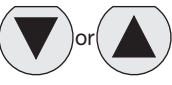
Parameter Number 12 – Set Proportional Band (P20 Must be Set to 0)

Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal (value between 50 and 250)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 12.	Displays current parameter value. Incremental value is: x 10 mbar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Deadband

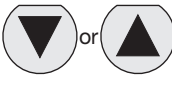
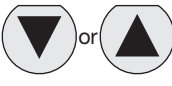
Deadband is the Minimum limit of accuracy at which the regulator is set for normal operation. The displayed value is X 10 mbar and has a range between 4 (40 mbar) and 40 (400 mbar).

Parameter Number 13 – Set Deadband (P20 Must be Set to 0)

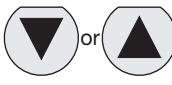
Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal (value between 4 and 40)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 13.	Displays current parameter value. Incremental value is x 10 mbar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Proportional Effect

Parameter Number 21 – Set Proportional Effect (P20 Must be Set to 0)

Step	1	2	3	4	5	
Press 	 3-6 seconds					
Until Display Reads			 Flashing Decimal	 Flashing Decimal (value between 5 and 100)	 Flashing	
Description	Accesses changeable parameters.	Accesses parameter no. 21.	Displays current parameter value.	Edits parameter. 5 = fastest regulation 100 = slowest regulation.	Accepts and saves new parameter setting.	Sequences to next parameter.

Parameter Number 39 – Displays Current Software Version

Step	1	2	3	
Press 	 3-6 seconds			
Until Display Reads			 Flashing Decimal	
Description	Accesses changeable parameters.	Accesses parameter no. 39.	Displays current parameter value. XXX = current software version	

Problem	Possible Reason	Solution
Display will not light up	No 24 volts power supply	Check if the wiring is connected according to the schematic wiring diagram
Unit will not, or not correctly respond to given setpoint	Wrong current applied (i.e. Volt instead of mA or mA instead of Volt	Change setpoint current or re configure the setpoint current through the software by changing parameter 4 Check wiring if the setpoint signal lead is connected to the right pin within the male M12 connector (should be pin 2)
	Setpoint signal is not stable enough	Stabilize setpoint signal input
Display shows NoP.	Unit detects that required output pressure is higher than the supplied pressure	Adjust the inlet pressure to a higher value, preferably 0,5 bar higher than requested output pressure Give lower setpoint value which corresponds to a output pressure lower than the inlet pressure
	No inlet pressure at all	Connect port 1 to the supply pressure
Unit behavior is not considered normal	Faulty settings made in the parameters	Reset the unit to factory settings by using the green key function under parameter 0
Desired pressure can not be reached	Setpoint value to low	Increase setpoint value
	Pre-set pressure limit has been changed to a lower max. outlet pressure	Change max. outlet pressure back to required pressure by changing parameter 19
	Supply pressure is to low	Increase supply pressure
Secondary side stays pressurized	Setpoint value is higher than 0,1 Volt	Lower your setpoint value, preferably to 0 Volts
	Pre-set pressure has been enabled to a certain pressure	Reset parameter 18 to 0
Display shows unrealistic value	Display maybe configured in the wrong value (bar instead of psi)	Check through parameter 14, if the display value is set on either psi or bar, if necessary change it to the required setting
Unit response time too slow or too quick	Volume behind the unit is either too big or too small	Adjust the regulating speed of the unit through parameter 20
Unit gives too much overshoot	Relation between volume and response me is out of balance	Adjust response time to a higher value through parameter 20, to achieve more accurate behavior
Unit is adjusting / regulating constantly	Air leakage in the system behind the unit	Resolve leakage
	Constant changing volume behind the unit	Unit needs to regulate to keep required pressure at the same level Try to minimize the volume changes
	"Deadband "area is set too small	Enlarge deadband setting through parameter 13 in the software (parameter 20 has to be set to 0 before changing parameter 13)
Can not enter software through touchpad	Unit is currently working/processing	Make sure that the unit is in steady state while activating the software
	Activating time is too short	Hold the accept button for at least 3 seconds
Display indicates 'OL'	Wiring not according to diagram (24 volt connected on the setpoint connection pin)	Rewire so that on the setpoint connection pin will be either 0-10v or 4-20mA
	Wrong setpoint value given in relation to programmed setpoint value acceptance	Change over setpoint value to either V or mA or Reprogram the unit to the correct setpoint value via parameter 4
Any other problem	Please consult factory	

Glossary

Hysteresis – The mechanical limits of accuracy of the unit. The regulator cannot be adjusted within the inherent mechanical limits of the design.

Dead Band – The minimum limit of accuracy at which the regulator is set for normal operation. This band must be equal to, or exceed, the inherent design limits of the regulator or the hysteresis band.

Proportional Band – The band used for setting reaction sensitivity of the regulator. The regulator senses the excursion from the set pressure and adjusts response in relation to the degree of excursion beyond the dead band. This band must exceed the dead band of the unit.

Proportional Effect – The speed at which the unit approaches P2 (secondary pressure).

Sensitivity – The smallest change in the control signal, or feedback signal, to cause a change in regulated output pressure.

Repeatability – a measurement of how consistently the unit can reproduce an output pressure in relation to a specific set pressure.

Linearity – A measure of how closely the relationship of output pressure vs. the control signal deviates from a straight line function.

Proportional Pressure Regulator ER90

= "Most Popular"

- Integral 3/4" or 1" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust but lightweight design



ER90 - 0 8 - 0 0 0 0

Series
Proportional Pressure Regulator ER90

Thread type*
NPT 0
BSPP C

Port size
3/4 6
1 8

Version
0 Side Exhaust, NC (Normally Closed)
N Side Exhaust, NO (Normally Closed)

Input
0 0-10 V
A 4 -20 mA

*Note: For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

Ordering information

Port size	Description	Control signal	Output signal)	Outlet pressure	Weight kg (lb)	Part number†
3/4"	Normally closed	0 - 10 V	0 - 10 V	0 - 10 bar (0 to 145 psig)	1.2 (2.7)	ER90-06-0000
1"	Normally closed	0 - 10 V	0 - 10 V	0 - 10 bar (0 to 145 psig)	1.2 (2.7)	ER90-08-0000

† Standard part numbers shown in bold. For other models refer to Options chart above.

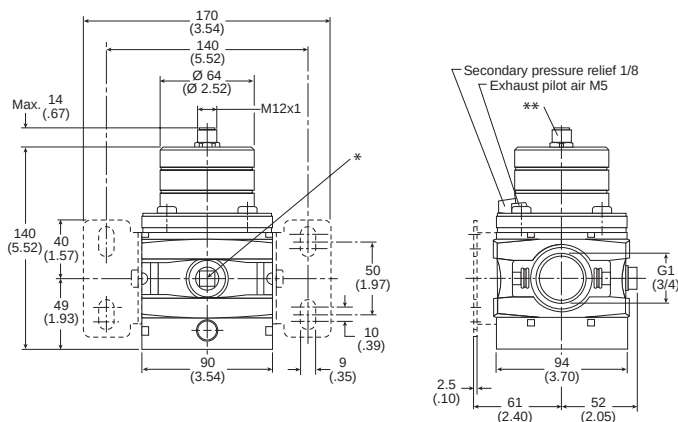
Specifications

Operating pressure range	P ¹ min	1 bar (14.5 psig)
Inlet pressure ¹	P ¹ max	16 bar (232 psig)
Operating pressure range	P ² min	0.2 bar (2.9 psig)
Outlet pressure	P ² max	10 bar (145 psig)
Operating temperature		0°C to 50°C (32°F to 122°F)
Maximum flow	Q _n	l/min 20000
		m ³ /h 1200
		SCFM 706
Hysteresis	P ² max	< 1%
Repeatability	P ² max	< 0.5%
Sensitivity	P ² max	< 0.5%
Linearity	P ² max	< 1%
Nominal voltage	U _n	V DC 24V = ±10%
Residual ripple		10%
Power consumption	I _{Bmax}	0.15 A
Set value input	U _w	V 0 - 10
	I	mA 0 - 20
		mA 4 - 20
Input resistance	R _E	243 K
		Ω
Actual valve output	U _x	0 - 10 V
Output current	I _{Amax}	10 mA
Degree of protection		IP65 to DIN 40050, EN 60529

¹) $p^1 > p^2 + 10\% p^2$

²) at $p^1 - 10$ bar to $p^2 - 6.3$ bar

Dimensions mm (inches)



* Two opposite gauge ports 1/4, plug screw mounted

** Connection for 5-pin plug M12 x 1

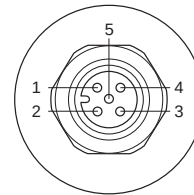
Material specifications

Housing	Aluminum
Pilot valve booster	Brass / NBR composite aluminum
Standard seals	NBR
Body cover screws	Steel / zinc plated

Cables

Type	Part number
M12, 5-pin female to flying lead cable, TPE; 2m (6.6 ft)	RKC 4.5T-2/S1587

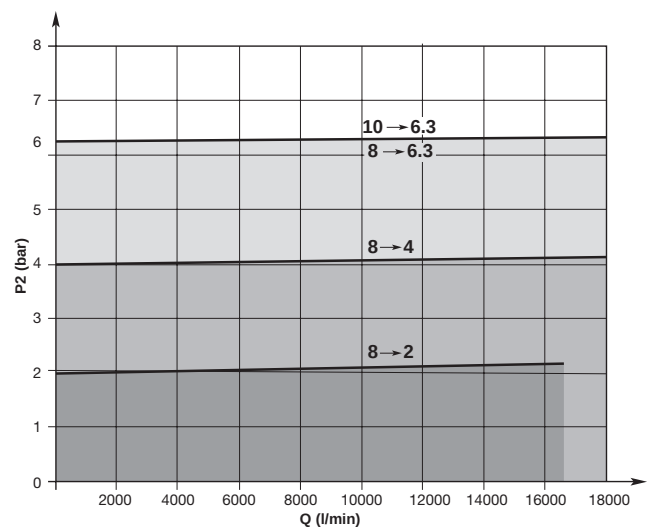
Connection diagram



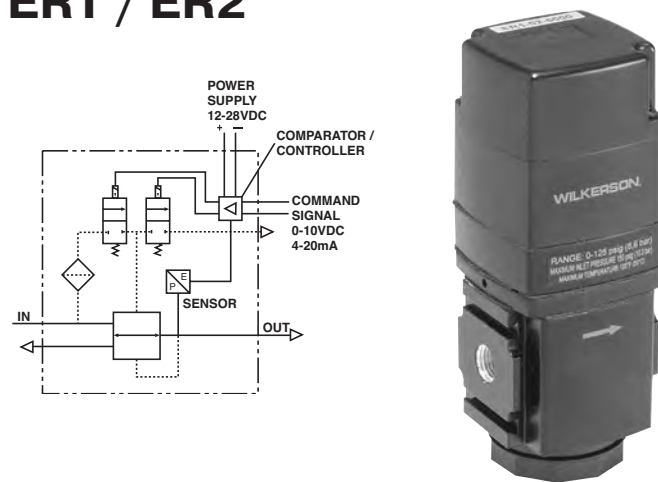
Connector M12 x 1

Pin No.		Function
1	24 V	Supply
2	0 V	Reference & mass capacity
3	0 - 10 V	Set value input
4	0 V	Signal
5	0 - 10 V	Analog output

Flow characteristics



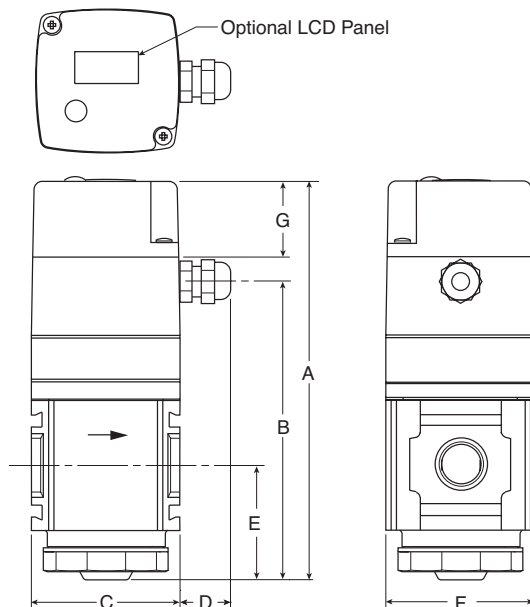
Electronic Regulator ER1 / ER2

 = "Most Popular"


ER1-02-0000

Features

- Optional LCD Panel Displays P2 Pressure in PSIG or bar
- Modern Design and Appearance
- Light Weight
- High Flow Capacity
- 5 Micron Filtration to Controller is Built-in



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit ER1-XX-0000		6.31 (160)	4.71 (120)	2.35 (60)	0.79 (20)	1.79 (45)	2.35 (60)	1.20 (30)
Standard Unit ER2-XX-0000		6.31 (160)	4.71 (120)	2.88 (73)	0.79 (20)	1.79 (45)	2.88 (73)	1.20 (30)

Specifications

Flow Capacity*	ER1	1/4	165 SCFM (77.9 dm³/s)
		3/8	200 SCFM (94.4 dm³/s)
		1/2	200 SCFM (94.4 dm³/s)
	ER2	3/8	200 SCFM (94.4 dm³/s)
		1/2	200 SCFM (94.4 dm³/s)
		3/4	200 SCFM (94.4 dm³/s)
Adjusting Range		0 to 125 PSIG (0 to 8.6 bar)	
Hysteresis / Repeatability		± .8% of Full Scale	
Linearity		< 1.0 PSIG (0.6 bar)	
Maximum Supply Pressure		150 PSIG (10.3 bar)	
Operating Temperature		32° to 125°F (0° to 52°C)	
Port Size	NPT / BSPP-G	1/4, 3/8, 1/2, 3/4	
Response		with Step Input 600 ms	
Sensitivity		± .8% of Full Scale	
Weight	lb. (kg)	ER1	1.76 (0.8)
		ER2	2.43 (1.1)

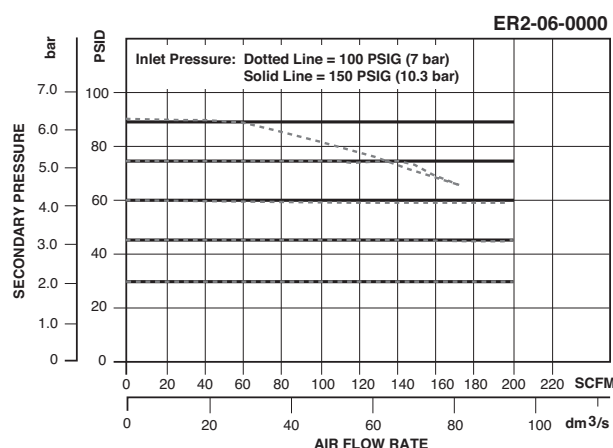
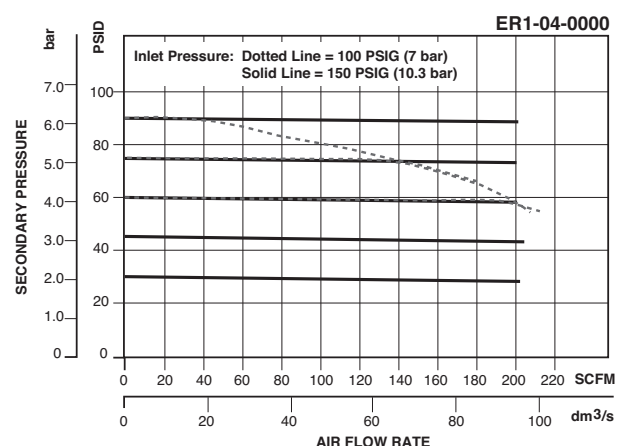
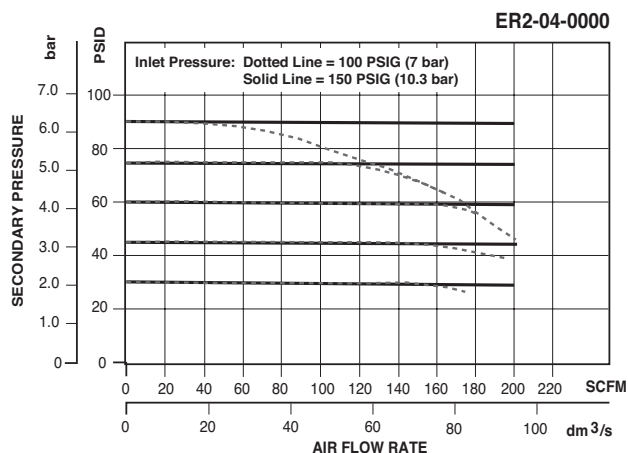
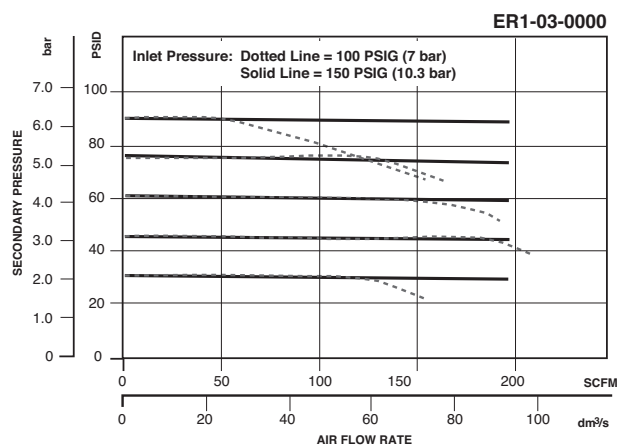
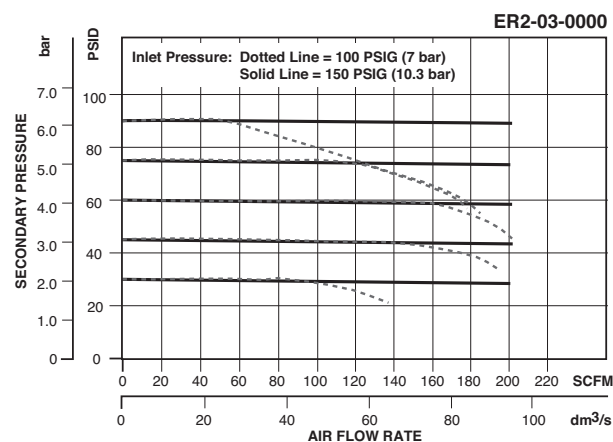
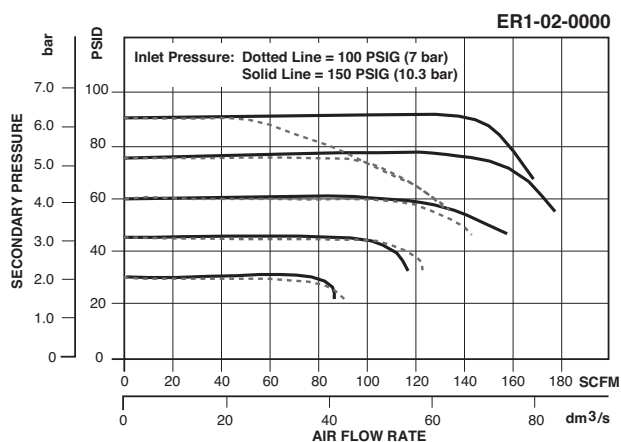
* Inlet pressure 150 PSIG (10.3 bar). Secondary pressure 90 PSIG (6.2 bar).

Materials of Construction

Body	Aluminum
Body Cover	ABS
Bottom Plug	33% Glass-Filled – Nylon 6-12
Diaphragms	Nitrile / Zinc / Brass
Diaphragm Plate	Acetal
Panel Nut	Acetal
Seals	Nitrile
Springs	Music Wire / Stainless Steel
Valve Assembly	Brass / Nitrile

Accessories

Bottom Valve & Spring	ERP-95-794
C-Bracket –	
ER1	GPA-97-086
ER2	GPA-97-087
Diaphragm Kit –	
ER1	ERP-95-792
ER2	ERP-95-793
Exhaust Muffler	VRP-95-780

 = "Most Popular"


Ordering Information

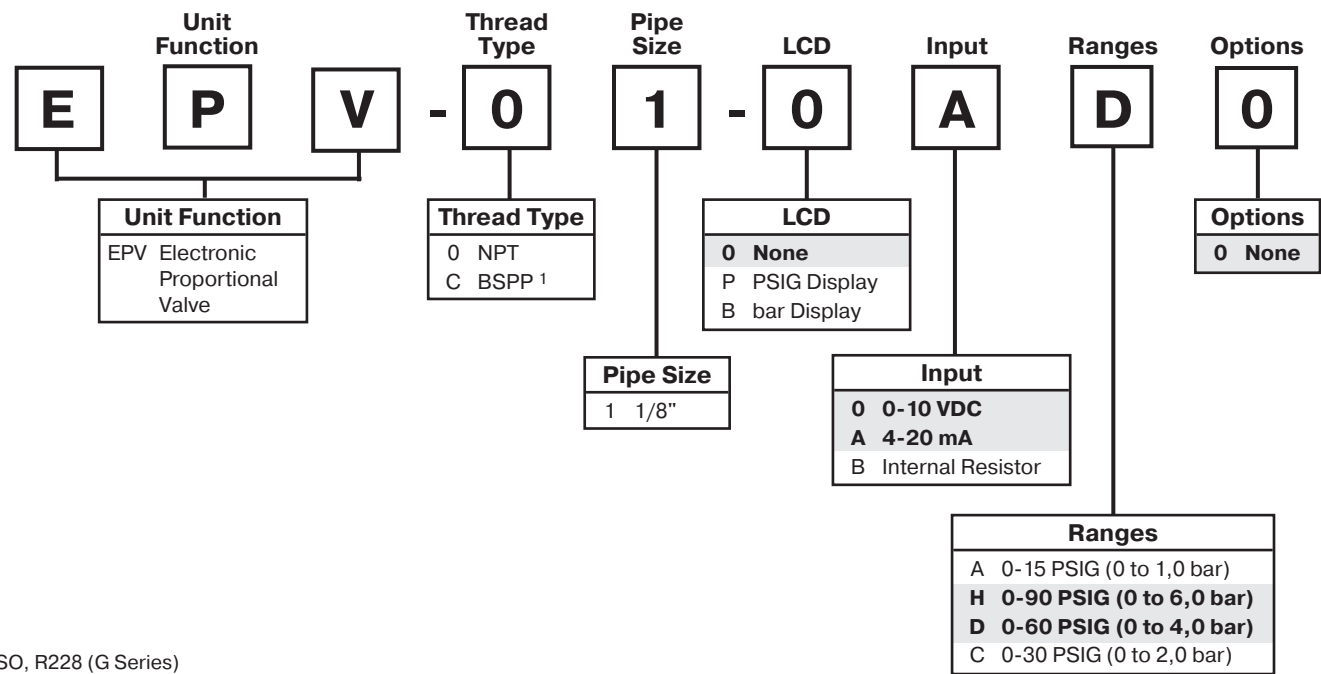
Model Type	Port Size	0 to 10VDC With LCD (PSI)	0 to 10VDC With LCD (bar)	4 to 20mA With LCD (PSI)	4 to 20mA With LCD (bar)	0 to 10VDC Without LCD	4 to 20mA Without LCD	Internal With LCD (PSI)	Internal With LCD (bar)
ER1	1/4	ER1-02-P000	ER1-C2-B000	ER1-02-PA00	ER1-C2-BA00	ER1-02-0000	ER1-02-0A00	ER1-02-PB00	ER1-C2-BB00
	3/8	ER1-03-P000	ER1-C3-B000	ER1-03-PA00	ER1-C3-BA00	ER1-03-0000	ER1-03-0A00	ER1-03-PB00	ER1-C3-BB00
	1/2	ER1-04-P000	ER1-C4-B000	ER1-04-PA00	ER1-C4-BA00	ER1-04-0000	ER1-04-0A00	ER1-04-PB00	ER1-C4-BB00
ER2	3/8	ER2-03-P000	ER2-C3-B000	ER2-03-PA00	ER2-C3-BA00	ER2-03-0000	ER2-03-0A00	ER2-03-PB00	ER2-C3-BB00
	1/2	ER2-04-P000	ER2-C4-B000	ER2-04-PA00	ER2-C4-BA00	ER2-04-0000	ER2-04-0A00	ER2-04-PB00	ER2-C4-BB00
	3/4	ER2-06-P000	ER2-C6-B000	ER2-06-PA00	ER2-C6-BA00	ER2-06-0000	ER2-06-0A00	ER2-06-PB00	ER2-C6-BB00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes

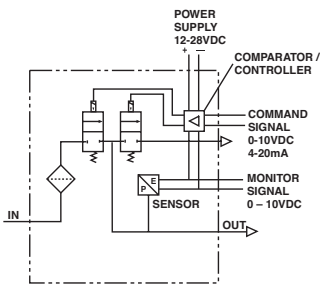
Electronic Proportional Valve Numbering System

= "Most Popular"



¹ ISO, R228 (G Series)

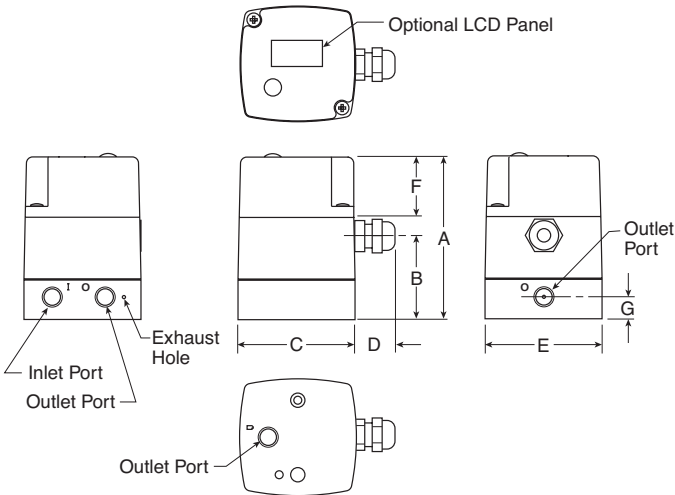
Electronic Proportional Valve EPV

 = “Most Popular”

EPV-01-00H0

Features

- Optional LCD Panel Displays P2 Pressure in PSIG or bar
- Modern Design and Appearance
- Light Weight
- 0-10 VDC, 4-20mA, or Internal Control Signal Options Available



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit EPV-XX-0000		3.28 (83)	1.69 (43)	2.35 (60)	0.79 (20)	2.35 (60)	1.20 (30)	0.45 (11)

Specifications

Flow Rate	Cv = .02
Linearity	< 1.0 PSIG (.06 bar)
Maximum Supply Pressure	150 PSIG (10.3 bar)
Operating Temperature	32° to 125°F (0° to 52°C)
Output Pressure Ranges	15 / 30 / 60 / 90 PSIG 1/2, 1/4, 1/6, 2 bar
Overall Accuracy	0.8% Scale
Port Size	NPT / BSPP-G 1/8
Response*	50 mSEC
Step Response**	with Step Input 600 mSEC
Weight	lb. (kg) .92 (.42)

* Response time for the unit to recognize and correct for a change in set value or conditions.

** Step response is the time to go from 10 to 90% of set value with a 60 PSIG (4.0 bar) step input.

Materials of Construction

Body / Cap	Aluminum
Body Cover	ABS
Seals	Nitrile
Valve Assembly	Brass / Nitrile

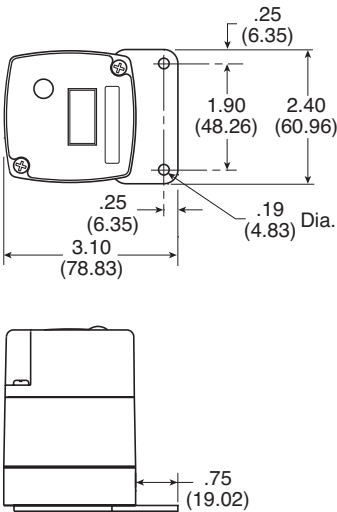
= “Most Popular”

The EPV provides highly accurate pressure for static and low flow applications. In addition, the EPV is available in both 1/8" NPT or G-series outlet ports on three sides and has a unique compact design which allows for easy installation.

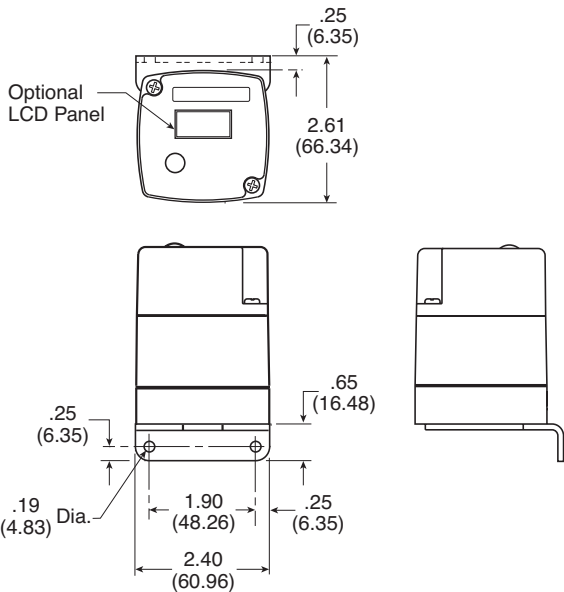
For optimum valve and system performance, we recommend a pre-filter package consisting of a 5 micron particulate filter and a .01 micron coalescing filter.

Replacement Kits

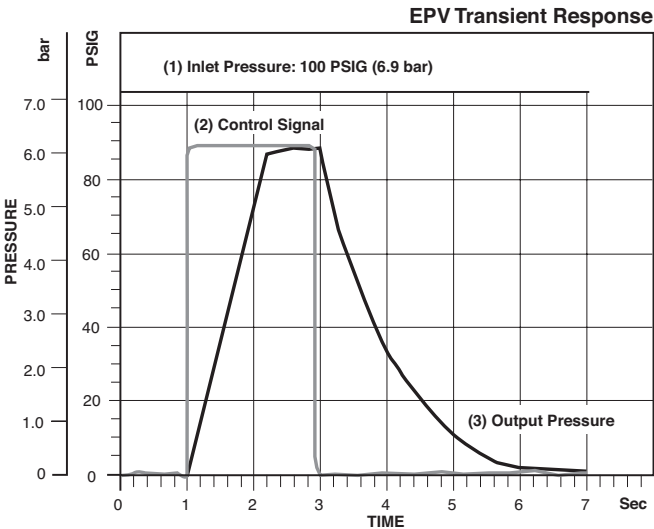
- Flat Bracket Kit..... EPP-95-351
- Angled Bracket Kit..... EPP-95-352
- Control Board, EPV 15 / 30 PSIG EPP-95-782



Flat Bracket



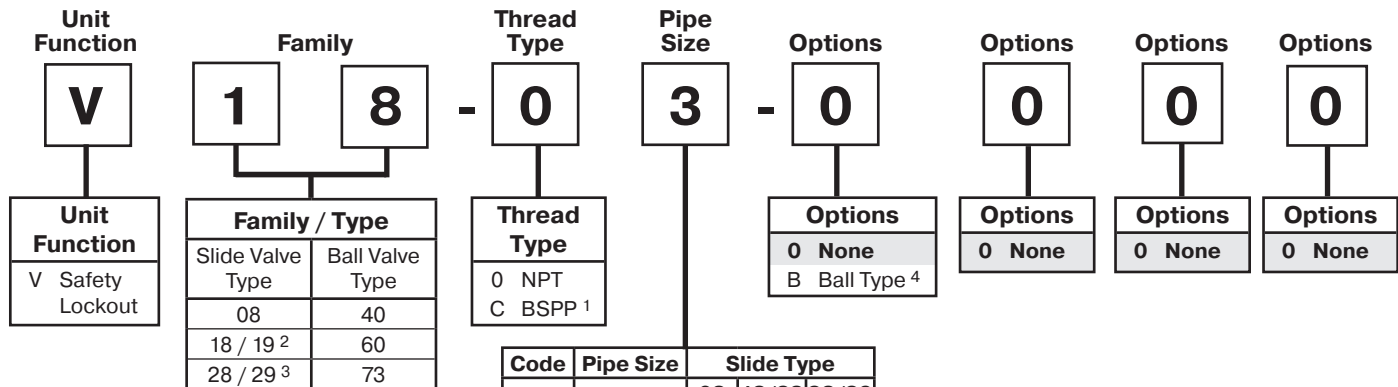
Angled Bracket



Ordering Information

Model Type	Port Size	Display	0 to 10VDC w/ LCD	4 to 20mA w/ LCD	Internal With LCD
EPV	1/8	PSI	EPV-01-P0H0	EPV-01-PAH0	EPV-01-PBH0
		bar	EPV-C1-B0H0	EPV-C1-BAH0	EPV-C1-BBH0
		None	EPV-01-00H0	EPV-01-0AH0	—

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Safety Lockout Valve Numbering System = "Most Popular"


Code	Pipe Size	Slide Type		
		08	18/28	28/29
1	1/8"	X		
2	1/4"	X	X	
3	3/8"		X	X
4	1/2"		X	X
6	3/4"			X
Code	Pipe Size	Ball Type		
		40	60	73
1	1/8"			
2	1/4"			
3	3/8"		X	
4	1/2"		X	X
6	3/4"			X

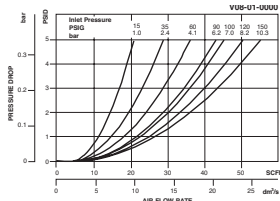
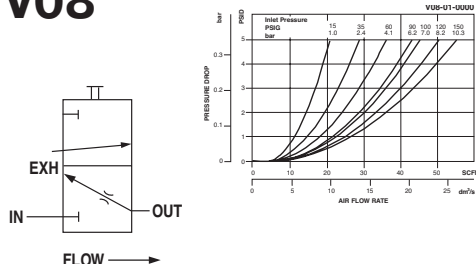
¹ ISO, R228 (G Series)² V18 / 19 - 18 Series is left-to-right (viewed from front) flow, designated by orange slide. 19 Series is right-to-left flow, designated by yellow slide.³ V28 / 29 - 28 Series is left-to-right (viewed from front) flow, designated by orange slide. 29 Series is right-to-left flow, designated by yellow slide.⁴ Not available on V08, V18 / V19, V28 / V29 units.

Ordering Information			
Port Size	Slide Valve Type		
1/8"	V08-01-0000		
1/4"	V08-02-000	V18-02-0000 *	
		V19-02-0000 **	
3/8"		V18-03-0000 *	V28-03-0000 *
		V19-03-0000 **	V29-03-0000 **
1/2"		V18-04-0000 *	V28-04-0000 *
		V19-04-0000 **	V29-04-0000 **
3/4"			V28-06-0000 *
			V29-06-0000 **
Port Size	Ball Valve Type		
1/8"			
1/4"	V40-02-B000		
3/8"		V60-03-B000	
1/2"		V60-04-B000	V73-04-B000
3/4"			V73-06-B000

* V18 / v28 series is left to right flow (viewed from front), designated by orange slide.

** V19 / v29 series is right to left flow (viewed from front), designated by yellow slide

Safety Lockout Valve V08

 = "Most Popular"


V08-01-0000

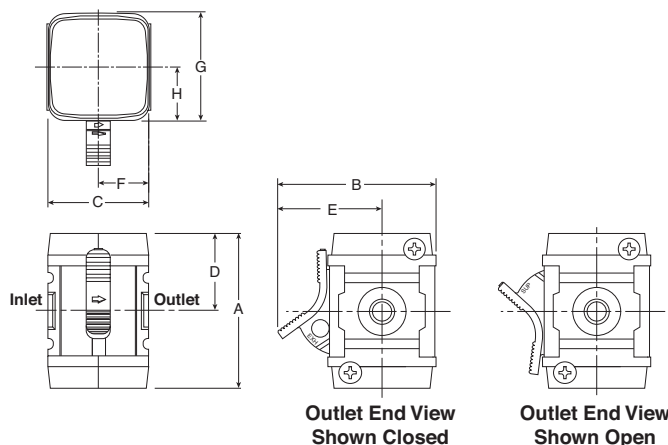
Features

The V08 safety lockout valve is a manually operated, slide-type, 2-position, 3-way valve. In the closed position, downstream air is exhausted to atmosphere. The valve slide can be locked in the closed position with a customer supplied padlock. The V08 safety lockout valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).

Ordering Information

Model Type	Port Size	Safety Lockout Valve
V08	1/8	V08-01-0000
	1/4	V08-02-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit V08-XX-0000		2.41 (61.2)	2.46 (62.5)	1.58 (40)	1.21 (30.7)	1.63 (41.4)	0.79 (20)	1.68 (42.7)	0.84 (21.3)

Specifications

Flow Capacity*	1/8	55 SCFM (26 dm³/s)
	1/4	100 SCFM (47.2 dm³/s)
Exhaust Flow	V08 1/8	C _v = 0.241
	V08 1/4	C _v = 0.253
Maximum Supply Pressure	150 PSIG (10.3 bar)	
Operating Temperature	32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	1/8, 1/4
Weight	lb. (kg)	.66 (0.3)

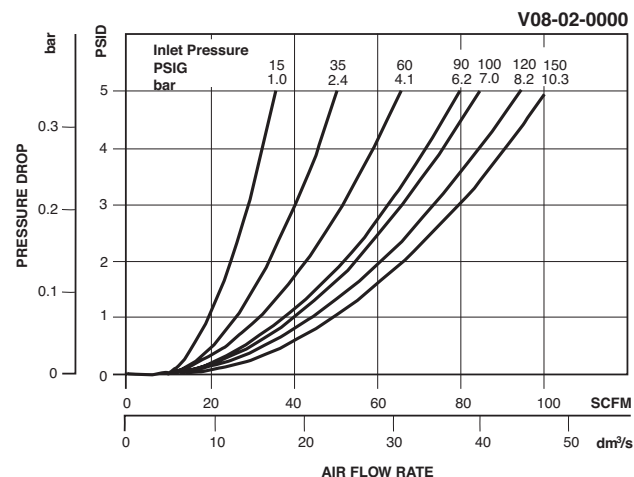
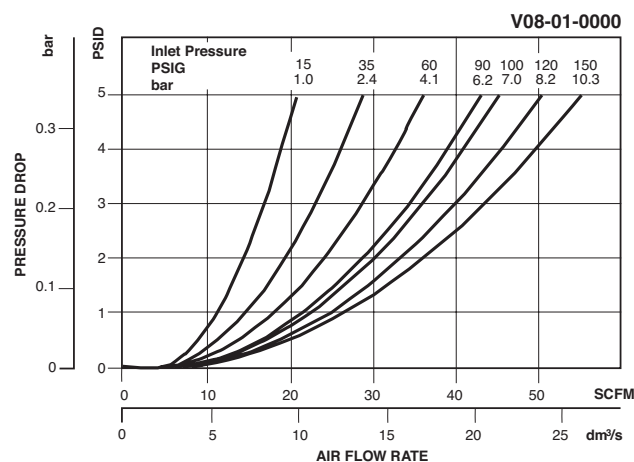
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

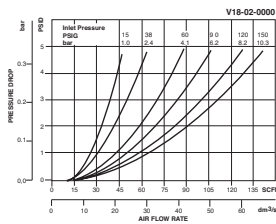
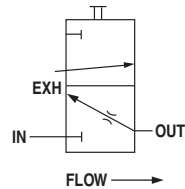
Blade	Acetal
Body	Zinc
Seals	Nitrile

Replacement Kit

Blade and O-ring VRP-96-92



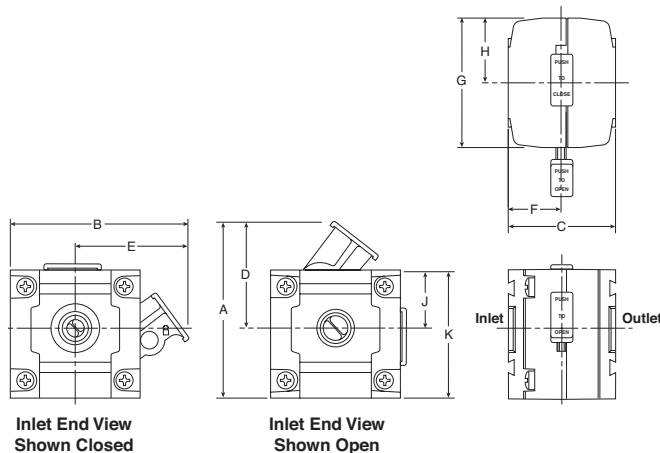
Safety Lockout Valve V18 / V28

 = "Most Popular"


V18-02-0000 Left to Right Flow (Orange Slide)

Features

The V18 / V28 safety lockout valve is a manually operated, slide-type, 2-position, 3-way valve. In the closed position, downstream air is exhausted to atmosphere. The valve slide can be locked in the closed position with a customer supplied padlock. The V18 / V28 safety lockout valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).



Specifications

Flow Capacity*	V18	1/4	141 SCFM (66.5 dm ³ /s)
		3/8	216 SCFM (101.9 dm ³ /s)
		1/2	272 SCFM (128.4 dm ³ /s)
	V28	3/8	208 SCFM (98.2 dm ³ /s)
		1/2	290 SCFM (136.9 dm ³ /s)
		3/4	300 SCFM (141.6 dm ³ /s)
Exhaust Flow	V18	3/8	C _v = 1.03
	V28	1/2	C _v = 1.05
Maximum Supply Pressure		150 PSIG (10.3 bar)	
Operating Temperature		32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	V18	1/4, 3/8, 1/2
		V28	3/8, 1/2, 3/4
Weight	lb. (kg)	V18	.74 (.34)
		V28	.90 (.41)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Blade	Acetal
Body	Zinc
Seals	Nitrile

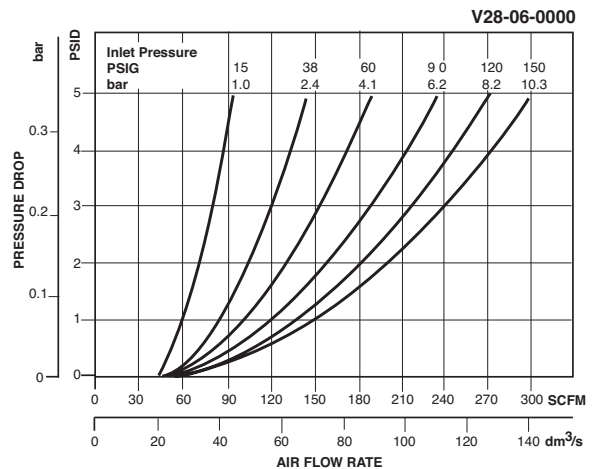
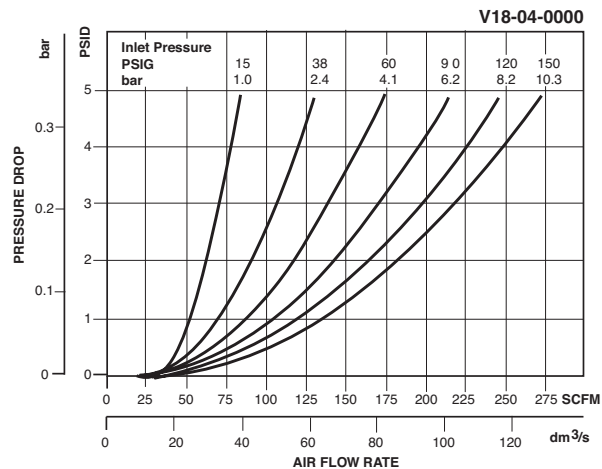
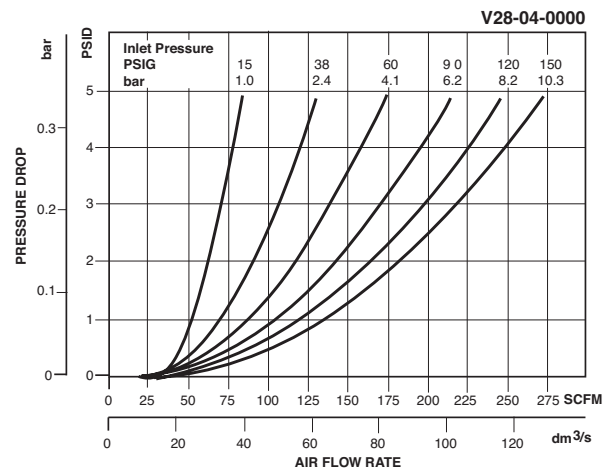
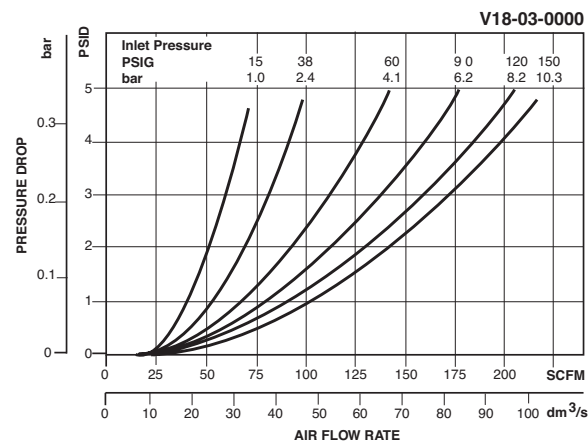
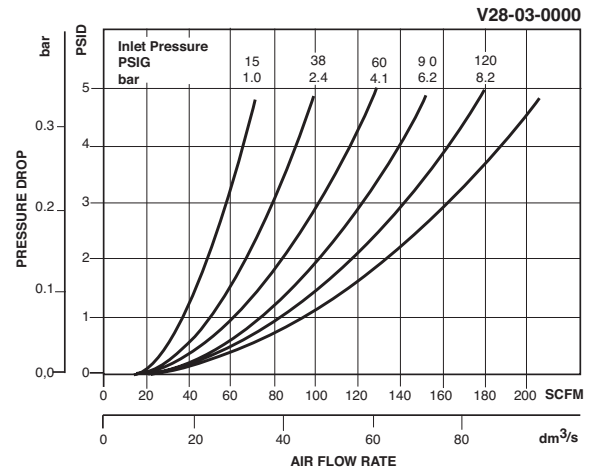
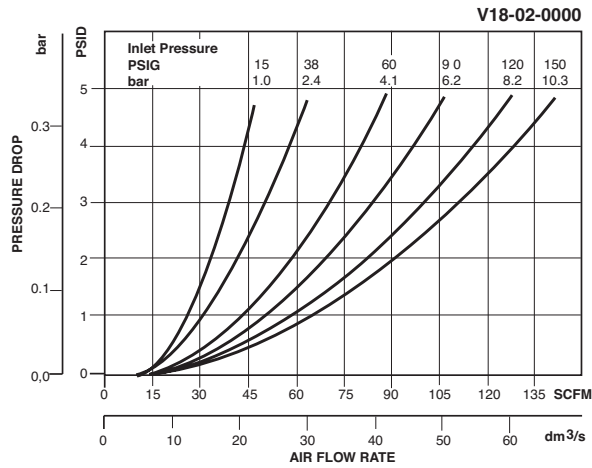
Replacement Kits

Plastic Slide And O-rings, (Orange) (V18).....VRP-96-925

Plastic Slide And O-rings, (Orange) (V28).....VRP-96-926

Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H	J	K
Standard Unit V18-XX-0000		3.16 (80)	3.19 (81)	1.93 (49)	1.91 (48.5)	2.02 (51)	0.97 (24.5)	2.36 (60)	1.18 (30)	1.03 (26)	2.28 (58)
Standard Unit V28-XX-0000		3.23 (82)	3.41 (86)	2.28 (58)	1.98 (50)	2.13 (54)	1.14 (28)	2.58 (65)	1.29 (33)	1.03 (26)	2.28 (58)

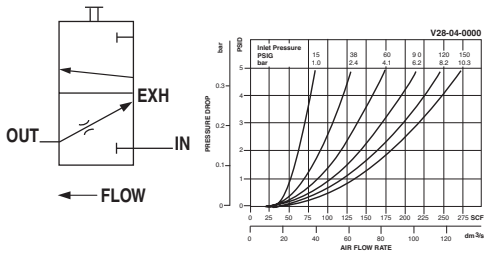
= "Most Popular"


Ordering Information

Model Type	Port Size	Safety Lockout Valve
V18	1/4	V18-02-0000
	3/8	V18-03-0000
	1/2	V18-04-0000
V28	3/8	V28-03-0000
	1/2	V28-04-0000
	3/4	V28-06-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

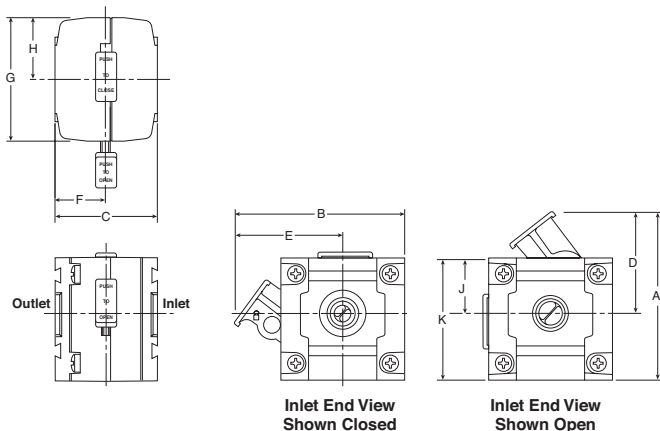
Safety Lockout Valve V19 / V29

 = "Most Popular"


V19-02-0000 Right to Left Flow (Yellow Slide)

Features

The V19 / V29 safety lockout valve is a manually operated, slide-type, 2-position, 3-way valve. In the closed position, downstream air is exhausted to atmosphere. The valve slide can be locked in the closed position with a customer supplied padlock. The V19 / V29 safety lockout valves have yellow slides and are for use in right-to-left flow applications. The V19 / V29 valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H	J	K
Standard Unit V19-XX-0000		3.16 (80)	3.19 (80)	1.93 (81)	1.91 (49)	2.02 (51)	0.97 (24.5)	2.36 (60)	1.18 (30)	1.03 (26)	2.28 (58)
Standard Unit V29-XX-0000		3.23 (82)	3.41 (86)	2.28 (58)	1.98 (50)	2.13 (54)	1.14 (28)	2.58 (65)	1.29 (33)	1.03 (26)	2.28 (58)

Specifications

Flow Capacity*	V19	1/4	141 SCFM (65.5 dm ³ /s)
		3/8	216 SCFM (101.9 dm ³ /s)
		1/2	272 SCFM (128.4 dm ³ /s)
	V29	3/8	208 SCFM (98.2 dm ³ /s)
		1/2	290 SCFM (136.9 dm ³ /s)
		3/4	300 SCFM (141.6 dm ³ /s)
Exhaust Flow	V19	3/8	C _v = 1.03
	V29	1/2	C _v = 1.05
Maximum Supply Pressure		150 PSIG (10.3 bar)	
Operating Temperature		32° to 150°F (0° to 65.5°C)	
Port Size	NPT / BSPP-G	V19	1/4, 3/8, 1/2
		V29	3/8, 1/2, 3/4
Weight	lb. (kg)	V19	.74 (.34)
		V29	.90 (.41)

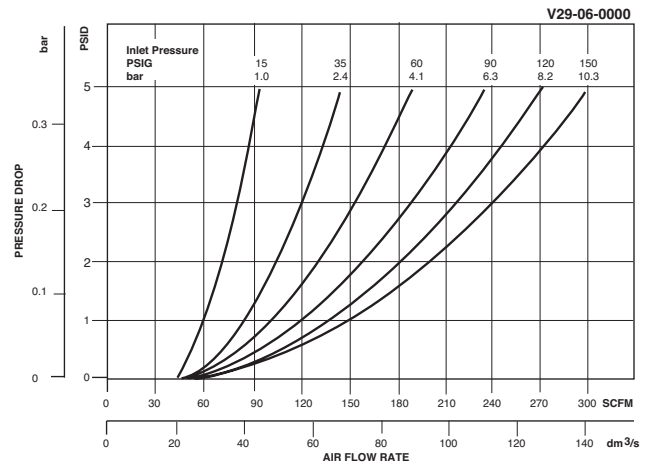
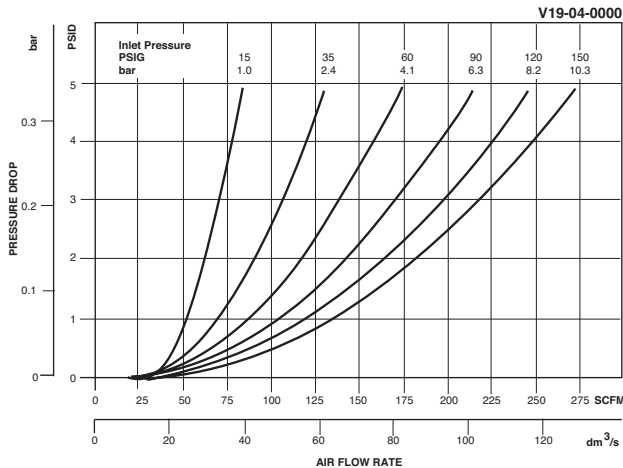
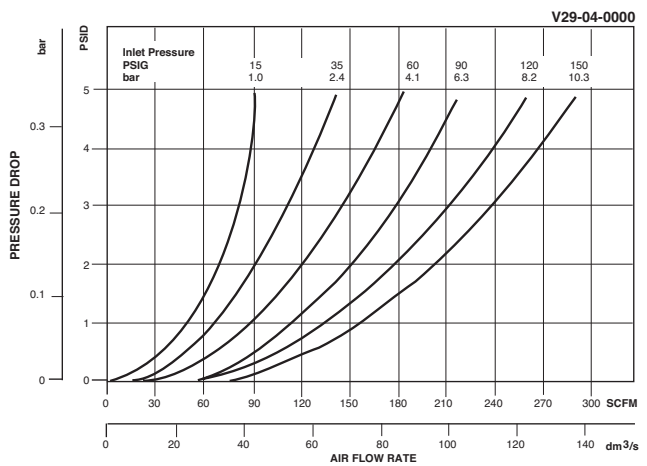
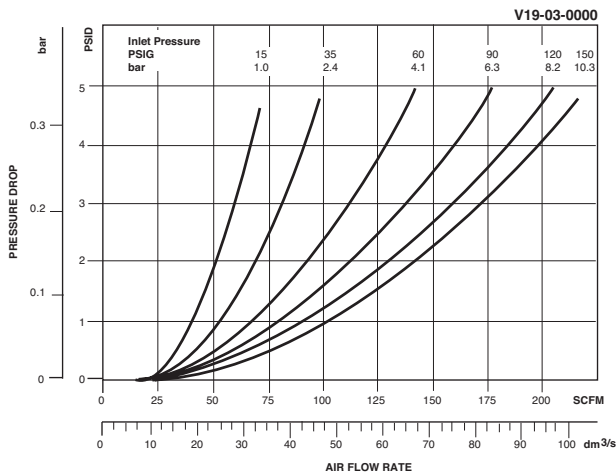
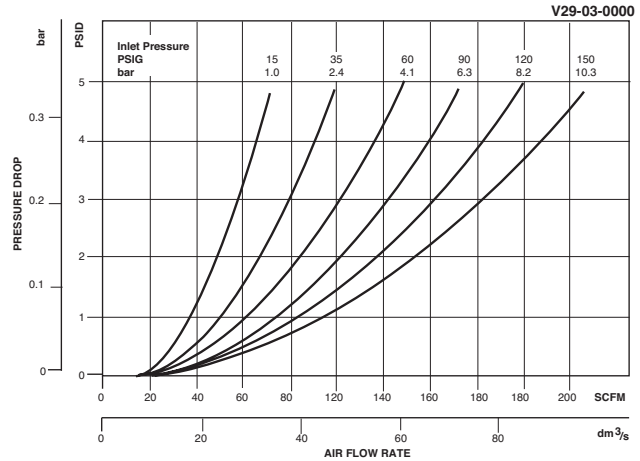
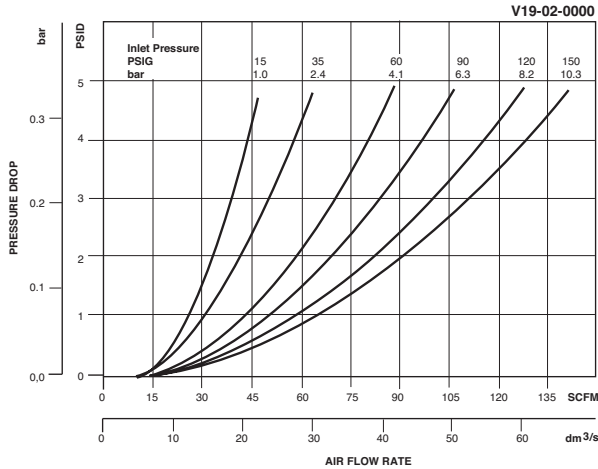
* Inlet pressure 150 PSIG (10,3 bar). Pressure drop 5 PSID) (0,3 bar).

Materials of Construction

Blade	Acetal
Body	Zinc
Seals	Nitrile

Replacement Kits

Plastic Slide And O-rings, (Yellow) (V19)..... VRP-97-100
 Plastic Slide And O-rings, (Yellow) (V29) VRP-97-101

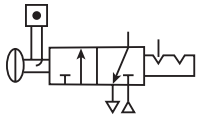
= "Most Popular"


Ordering Information

Model Type	Port Size	Safety Lockout Valve
V19	1/4	V19-02-0000
	3/8	V19-03-0000
	1/2	V19-04-0000
V29	3/8	V29-03-0000
	1/2	V29-04-0000
	3/4	V29-06-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Modular Ball Valve V40, V60, V73



 = "Most Popular"

Specifications

Operating Temperature	-40°C to 80°C (40°F to 176°F)		
Max. Supply Pressure	17 bar (246 psi)		
Port Size	NPT / BSPP / BSPT	1/4, 3/8, 1/2, 3/4	
Weight	V40:	0.15 kg (0.33 lbs)	
	V60:	0.36 kg (0.79 lbs)	
	V73:	0.55 kg (1.21 lbs)	

Materials of Construction

Body	Aluminum		
Seals	PTFE		
Ball	V40	Brass	
	V60 / V73	Chrome plated brass	

Features

The Modular Ball Valves provide shut off line pressure with a non-sticking 90° turn handle to prevent unauthorized adjustment. When the inlet pressure is turned off the downstream air pressure vents through the exhaust port. The padlock slide may be assembled on either side. It is recommended that this is assembled after mounting.

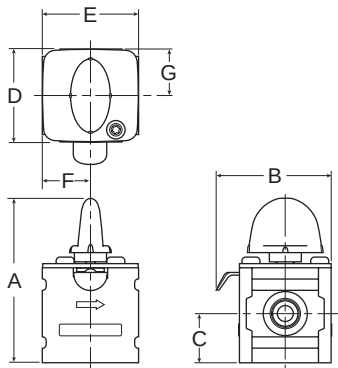
The Safety Lockout valves conform to OSHA #29 CFR part 1910 — control of hazardous energy source (lockout / tagout).

Note: This padlock slide is a permanent assembly and may not be removed later

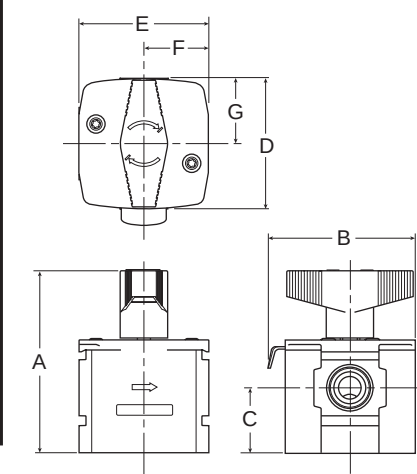
Ordering Information

Model Type	Port Size	Thread Type	Flow SCFM
V40-02-B000B	1/4	NPT	42
V60-03-B000B	3/8	NPT	190
V60-04-B000B	1/2	NPT	258
V73-04-B000B	1/2	NPT	561
V73-06-B000B	3/4	NPT	678

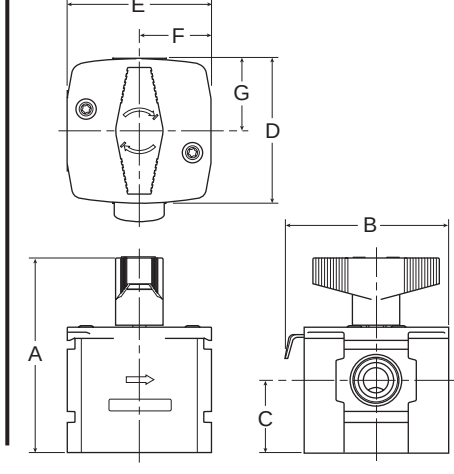
V40



V60



V73



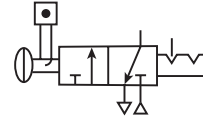
Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit V40-XX-B000B		2.81 (71.4)	1.96 (50)	0.84 (21.4)	1.57 (40)	1.65 (42)	0.82 (21)	0.78 (20)
Standard Unit V60-XX-B000B		3.46 (88)	2.87 (73)	1.00 (25.4)	2.36 (60)	2.36 (60)	1.18 (30)	1.18 (30)
Standard Unit V73-XX-B000B		3.87 (98.4)	3.25 (82.6)	1.44 (36.5)	2.87 (73)	2.87 (73)	1.43 (36.5)	1.43 (36.5)

Modular Ball Valve V90



Symbol



- Positive bubble tight shut-off
- 90° turn handle to prevent unauthorized adjustment
- Padlockable (up to 6 times)
- When the inlet pressure is turned off the downstream vents through the exhaust port

Ball / Lockout Valve shuts off downstream line pressure in the closed position with a 90° turn of the handle. In the closed position, inlet air pressure is blocked and downstream / system air is exhausted through a threaded port. To prevent unauthorized adjustment, the padlock slide may be assembled on either side. It is recommended that this slide is installed after final system assembly.

The Safety Lockout valves conform to OSHA #29 CFR part 1910 – control of hazardous energy source (lockout / tagout).

V90	-	0	6	-	B	0	0	0
Series		Thread type*		Port size		Option		
Ball Valve V90		NPT 0		3/4 6		Ball B		
		BSPP C		1 8				

***Note:** For 1-1/2" ported unit, please order P3YKA*BCP port block kit separately.
Bold items are most common.

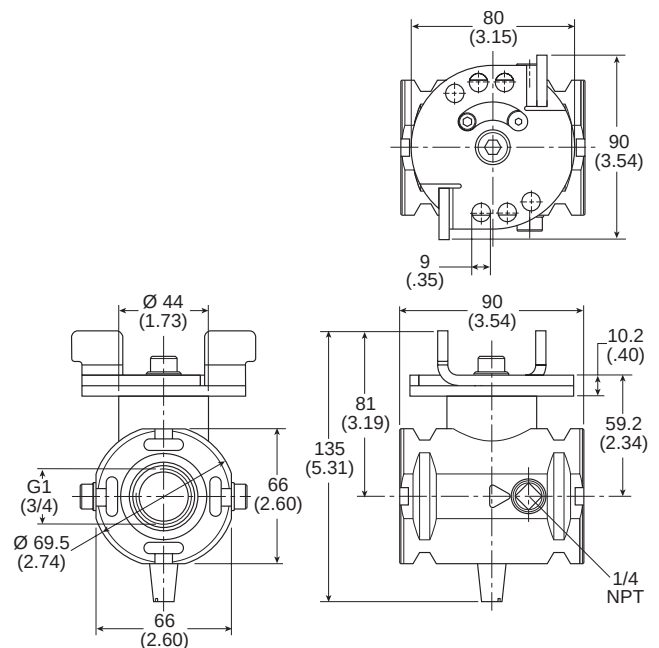
Specifications

Flow capacity	3/4"	333 dm ³ /s (705.6 scfm)
	1"	333 dm ³ /s (705.6 scfm)
Max. pressure air pilot operated		17.5 bar (254 psig)
Operating temperature		-10°C to 60°C (14°F to 140°F)
Weight	3/4"	1.1 kg (2.4 lb)
	1"	1.1 kg (2.4 lb)

Material Specifications

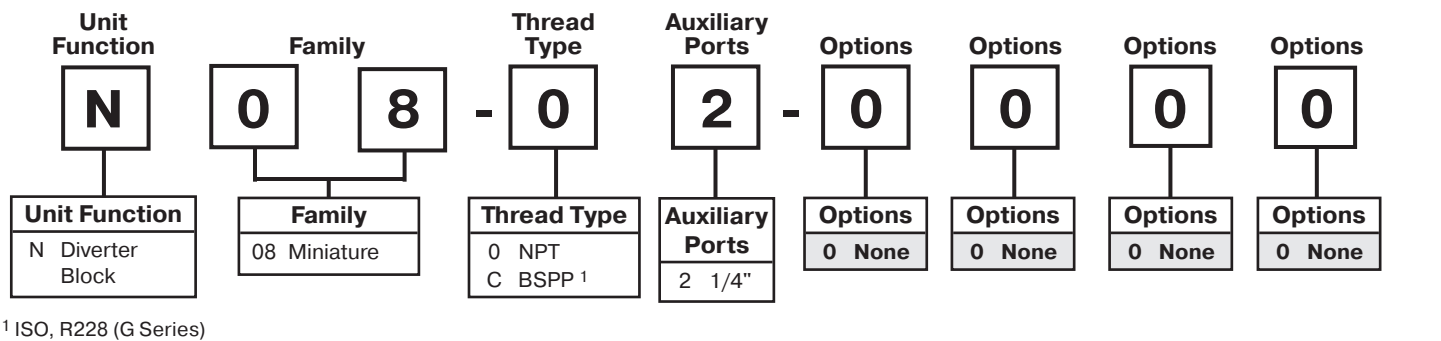
Body	Aluminum
Valve ball	Brass / Nickle plated
Handle	Aluminum
Seals	Nitrile NBR
Exhaust silencer	Sintered bronze

Dimensions mm (inches)

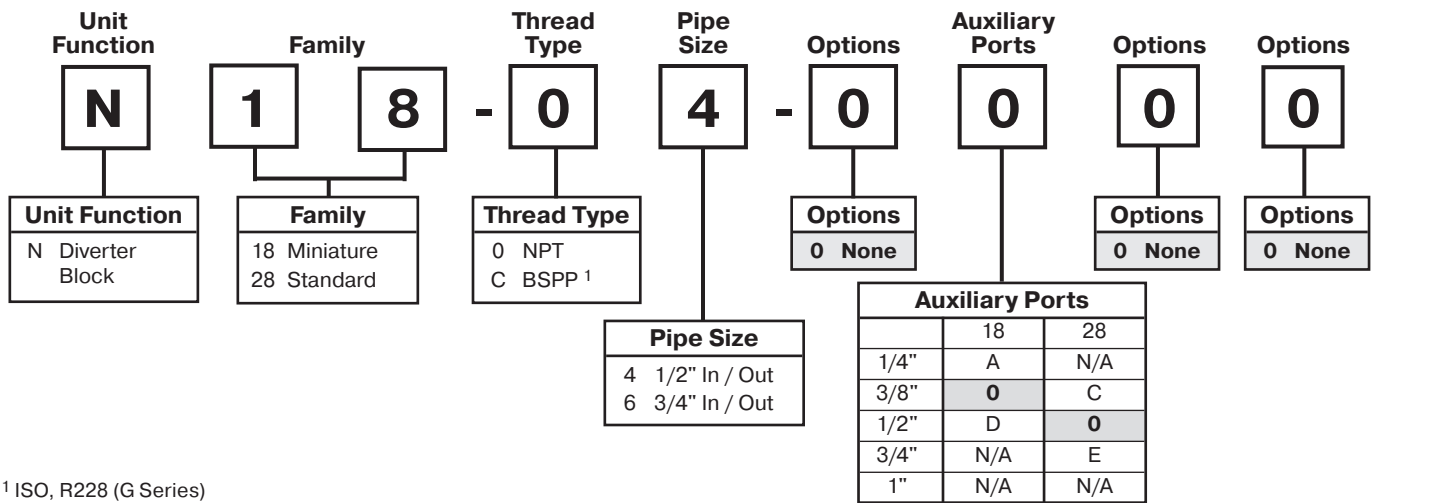


08 Series Diverter Block Numbering System

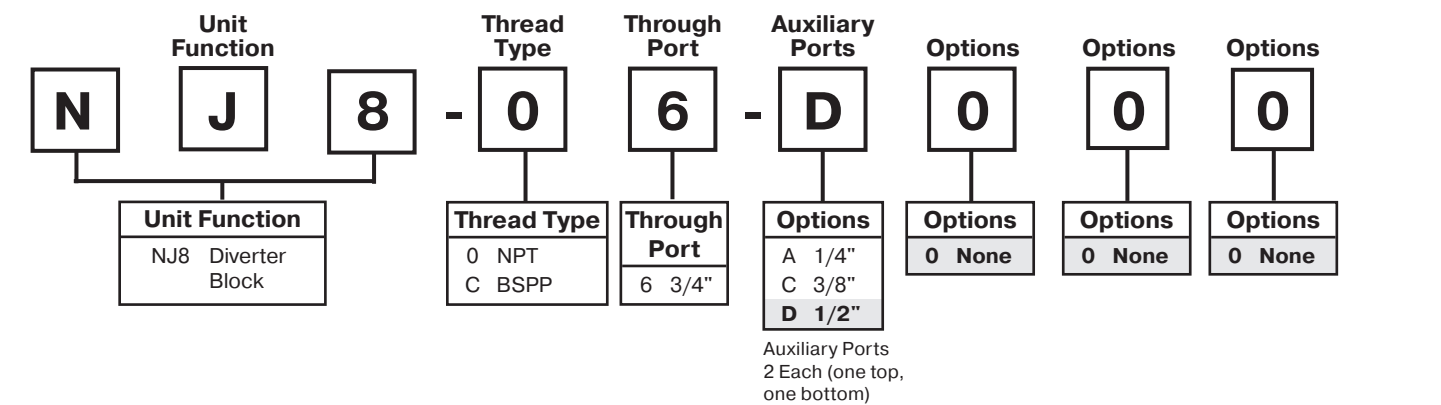
= "Most Popular"



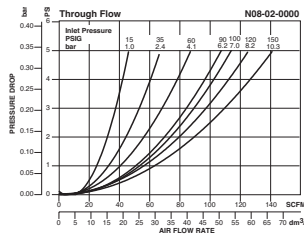
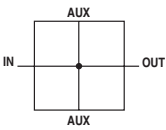
18 / 28 Series Diverter Block Numbering System



NJ8 Diverter Block Numbering System



Diverter Block N08



Specifications

Flow Capacity*	1/4	140 SCFM (66.1 dm ³ /s)
Auxiliary Port (2)	NPT / BSPP-G	1/4
Maximum Supply Pressure	300 PSIG (20.7 bar)	
Operating Temperature	-40° to 150°F (0° to 65.5°C)	
Port Size (In / Out)	NPT / BSPP-G	1/4
Weight	lb. (kg)	.42 (0.19)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

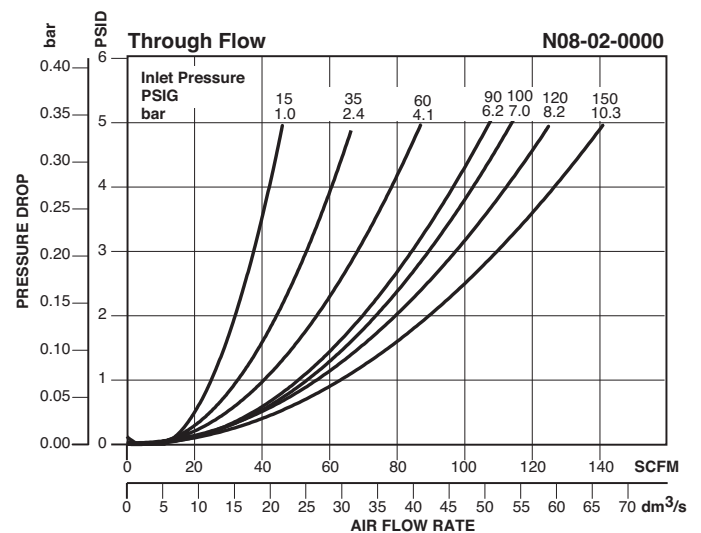
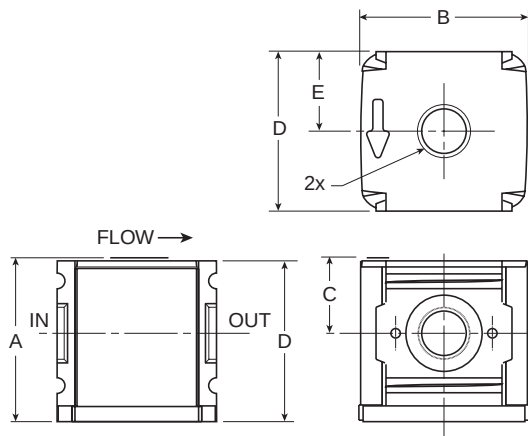
Body

Zinc

N08-02-0000

Features

- Available in 1/4 Threaded Ports
- Modern Design and Appearance
- Light Weight
- Two 1/4 Threaded Auxiliary Ports Standard
- Two Additional Auxiliary Ports Optional
- Can be Mounted Anywhere in the FRL System
- Includes One Pipe Plug



Dimensions

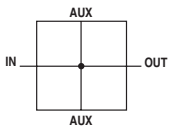
Models	Inches (mm)	A	B	C	D	E
Standard Unit N08-02-0000		1.61 (41)	1.66 (42)	0.74 (19)	1.58 (40)	0.79 (20)

Ordering Information

Model Type	In / Out Port Size	Auxiliary Port Size	Model
N08	1/4	1/4	N08-02-0000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Diverter Block N18 / N28



N18-04-0000

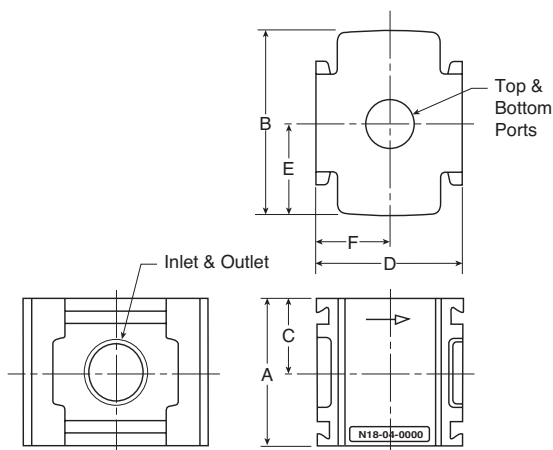
Features

- Available in 1/2 (N18) or 3/4 (N28) Threaded Ports
- Two Auxiliary Ports Standard
- Can be Mounted Anywhere in the FRL System

Ordering Information

Model Type	In / Out Port Size	Auxiliary Port Size	Model
N18	1/2	1/4	N18-04-0A00
		3/8	N18-04-0000
		1/2	N18-04-0D00
N28	3/4	3/8	N28-06-0C00
		1/2	N28-06-0000
		3/4	N28-06-0E00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.



Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit N18-XX-0000		1.88 (48)	2.36 (60)	0.94 (24)	1.88 (48)	1.18 (30)	0.94 (24)
Standard Unit N28-XX-0000		1.88 (48)	2.88 (73)	0.94 (24)	2.60 (66)	1.44 (36.5)	1.30 (33)

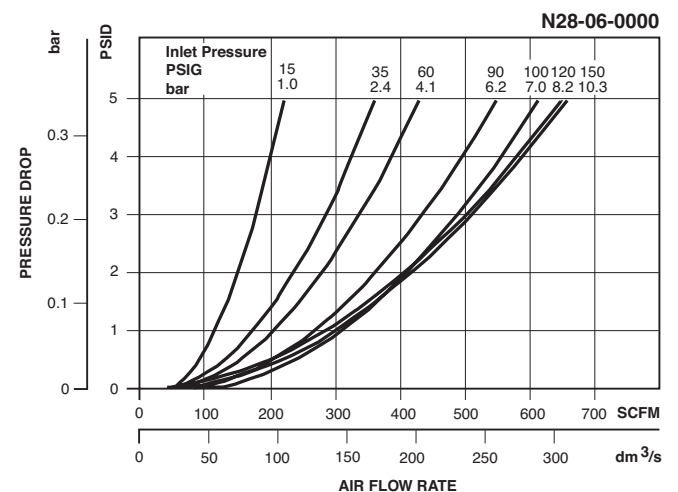
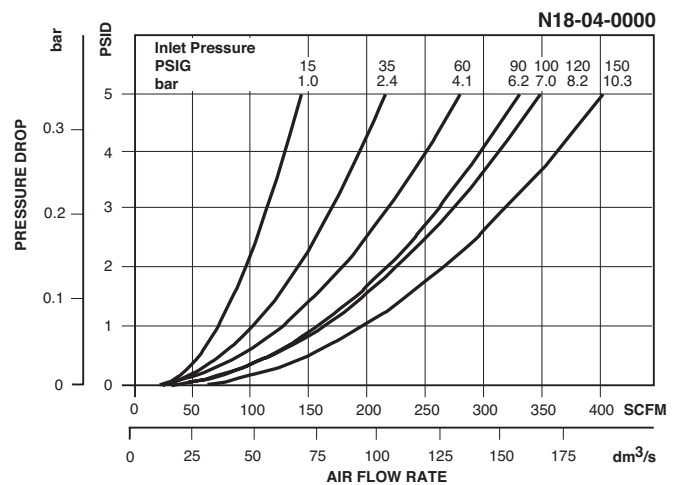
Specifications

Flow Capacity*	N18	1/2	400 SCFM (189 dm ³ /s)
	N28	3/4	647 SCFM (305 dm ³ /s)
Auxiliary Port (2)	NPT / BSPP-G	N18	3/8
		N28	1/2
Maximum Supply Pressure			300 PSIG (20.7 bar)
Operating Temperature			32° to 150°F (0° to 65.5°C)
Port Size (In / Out)	NPT / BSPP-G	N18	1/2
		N28	3/4
Weight	lb. (kg)	N18	.261 (.346)
		N28	.94 (1.08)

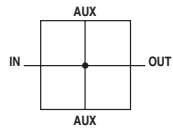
* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body	Aluminum
------	----------



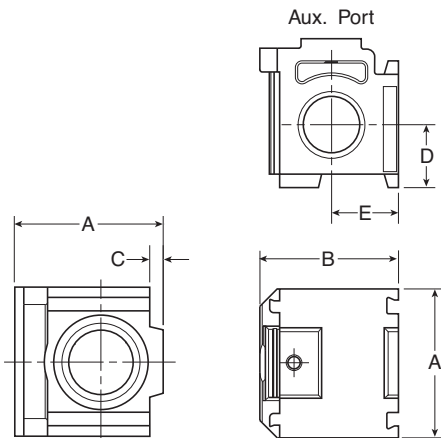
Diverter Block NJ8



NJ8-06-D000

Features

- Eliminates One Joiner Set
- Space-Saving Design.
- Can be Wall Mounted with T-Bracket
- Includes O-ring, One Pipe Plug and Joiner Clamp
- A000 Models Will Accept an Electronic Pressure Switch
- Can Assemble Multiple Units to Form a Manifold
- Auxiliary Ports Top and Bottom



Dimensions

Models	Inches (mm)	A	B	C	D	E
Standard Unit NJ8-X6-X000		1.88 (48)	1.75 (44)	0.17 (4)	0.80 (20)	0.85 (22)

Ordering Information

Model Type	Out Port Size	Auxiliary Port Size	Model
NJ8	3/4	1/4	NJ8-06-A000
		3/8	NJ8-06-C000
		1/2	NJ8-06-D000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Specifications

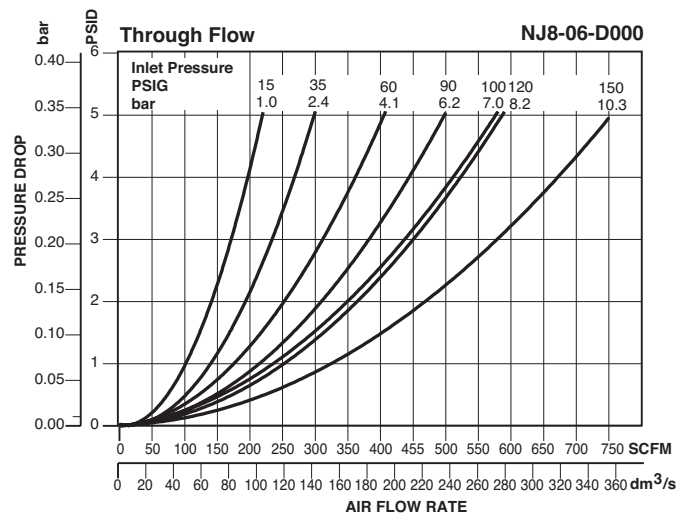
Flow Capacity*	(Model D000)	750 SCFM (354 dm ³ /s)
Auxiliary Port (2)	NPT / BSPP-G	1/4, 3/8, 1/2
Maximum Supply Pressure		300 PSIG (20.7 bar)
Operating Temperature		32° to 150°F (0° to 65.5°C)
Port Size (Out Only)	NPT / BSPP-G	3/4
Weight	lb. (kg)	.74 (0.34)

* Inlet pressure 150 PSIG (10.3 bar). Pressure drop 5 PSID (0.3 bar).

Materials of Construction

Body

Zinc



Modular Manifold P3YMA



90 Series Manifolds provide up to 4 extra outlet ports. They may be assembled at any position in a combination e.g. before the lubricator to provide oil free take off or at the end of a combination to provide extra outlet ports.

Thread type	Part number
NPT	P3YMA9V0N
BSPP	P3YMA1V0N

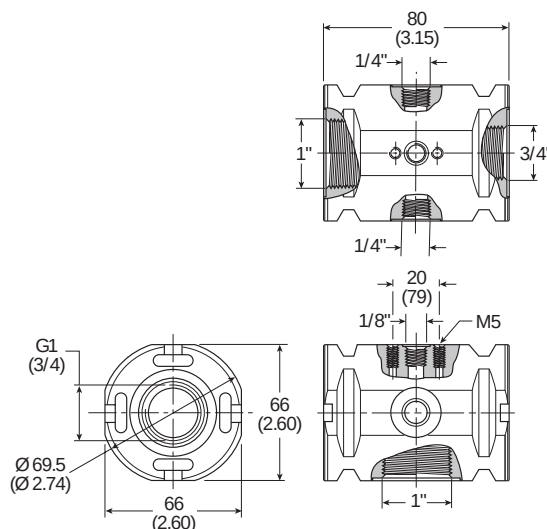
Port sizes

Inlet port	Top	Bottom	Front and Back
3/4"	1/8"	1"	1/4"
1"	1/8"	1"	1/4"

Material specifications

Body	Aluminum
Weight	0.7 kg (1.5 lb)

Dimensions mm (inches)



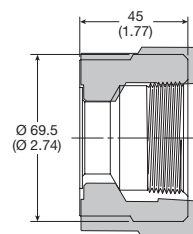
Optional Port Block Kits P3YKA



- To change port sizes Port Block Kits are available, they are attached to any unit utilizing the connecting kit.
- Allows assemblies to be removed from a hard piped system.

Material specifications

Body	Aluminum
Weight	0.65 kg (1.43 lb)



Inches (mm)

P3YKA		9	B	CP
Basic series	Port Blocks	Thread type	Port size	
P3YKA		BSPP	1-1/2	B
		NPT	9	



Modular Accessories and Repair Kits

D

Accessories & Repair Kits

Filter Replacement Element Kits.....	D2	Accessories –	
Filter Replacement Bowl Kits	D3	Filter / Regulators.....	D13-D15
Accessories – Filters	D4-D5	Accessories – 08 Series	D16
Accessories – Regulators	D6-D7	Accessories – 18 / 28 Series	D17
Regulator Replacement Kits	D8	Accessories – 16 / 26 Series	D18
Lubricator Replacement Kits	D9	Accessories – 90 Series	D19
Accessories – Lubricators.....	D10-D11		
Filter / Regulator –			
Replacement Repair Kits	D12		

Filter Replacement Element Kits



Model	Type A 5 Micron	Type B1 1 Micron	Type B 0.5 Micron	Type C 0.01 Micron	Type D Oil Vapor Removing
Particulate Filters					
F01	FRP-95-199	—	—	—	—
F03	PS403	—	—	—	—
F08	FRP-96-729	—	—	—	—
F16	FRP-95-160	—	—	—	—
F18	FRP-96-639	—	—	—	—
F26	FRP-95-115	—	—	—	—
F28	FRP-96-653	—	—	—	—
F30	FRP-95-209	—	—	—	—
F34	FRP-95-209	—	—	—	—
F35	FRP-95-505	—	—	—	—
F36	FRP-95-506	—	—	—	—
F37	FRP-95-507	—	—	—	—
F39	P3NKA00ESE	—	—	—	—
F43	FRP-95-508	—	—	—	—
F50	FRP-95-212	—	—	—	—
F51	FRP-95-213	—	—	—	—
F52	FRP-95-212 (3 kits)	—	—	—	—
F53	FRP-95-213 (3 kits)	—	—	—	—
Coalescing Filters					
M03	—	PS456	—	PS446	PS452
M08	—	—	MSP-96-732	MTP-96-649	MXP-96-222
M16	—	—	MSP-95-988	MTP-95-548	MXP-95-987
M18	—	—	MSP-96-647	MTP-96-646	MXP-96-650
M21	—	—	MSP-96-649	MTP-96-648	MXP-96-651
M26	—	—	MSP-95-989	MTP-95-549	MXP-95-540
M28	—	—	MSP-96-649	MTP-96-648	MXP-96-651
M30	—	—	MSP-95-992	MTP-95-551	MXP-95-532
M31	—	—	MSP-95-993	MTP-95-521	MXP-95-522
M32	—	MSP-95-873	—	MTP-95-559	MXP-95-558
M35	—	MSP-95-502	—	MTP-95-502	MXP-95-502
M36	—	MSP-95-503	—	MTP-95-503	MXP-95-503
M37	—	MSP-95-504	—	MTP-95-504	MXP-95-504
M39	—	—	P3NKA00ES9	P3NKA00ESC	—
M43	—	MSP-95-876	—	MTP-95-562	MXP-95-565
M45	—	MSP-95-500	—	MTP-95-500	MXP-95-500

* For F12 Series Filters.

Filter Replacement Bowl Kits



Model	Plastic Bowl / Bowl Guard / No Drain	Plastic Bowl / Manual Drain	Plastic Bowl / Bowl Guard / Manual Drain	Metal Bowl / Manual Drain	Metal Bowl / Sight Gauge / Manual Drain	Plastic Bowl / Bowl Guard / Automatic Drain	Metal Bowl / Automatic Drain	Metal Bowl / Sight Gauge / Automatic Drain
Particulate Filter / Coalescing Filter								
F03 / M03	—	PS404	—	PS447B	—	—	PS451B**	—
F08 / M08	—	—	GRP-96-712	GRP-96-714*	—	—	—	—
F18 / M18	GRP-96-638	—	GRP-96-634	—	GRP-96-636	GRP-96-635	—	GRP-96-637
F16 / M16	—	FRP-95-017	FRP-95-014	FRP-95-178	GRP-95-133	FRP-95-015	FRP-95-950	—
F28 / M28	GRP-96-652	—	GRP-96-642	—	GRP-96-644	GRP-96-643	—	GRP-96-645
F26 / M26	—	GRP-95-929	GRP-95-935	GRP-95-930	GRP-96-931	GRP-95-948	GRP-95-960	—
M21	—	MRP-96-415	FRP-95-722	—	—	—	—	—
F39 / M39	—	—	—	—	P3NKA00BSM	—	—	P3NKA00BSA
F30 / M30	—	FRP-96-315	FRP-95-832	FRP-95-593	GRP-95-676	FRP-95-77	GRP-95-970	—
F34	—	—	GRP-95-902	—	—	—	—	—
M31	—	MRP-95-940	MRP-95-938	MRP-95-939	—	MRP-95-941	—	—

* Metal bowl does not have sight gauge.

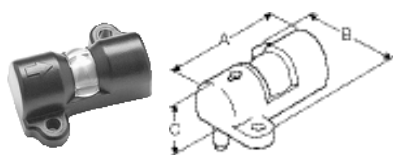
** 12 Series has Piston Style Drain.

Model	Bowl O-ring (Nitrile)	Bowl O-ring (Fluorocarbon)	Filter Retainer Element Baffle	Manual Drain
Particulate Filter				
F08	GRP-96-710	GRP-96-711	—	—
F18	GRP-96-640	GRP-96-754	FRP-96-641	GRP-96-685
F28	GRP-96-654	GRP-96-755	FRP-96-283	GRP-96-685
F39	—	—	—	PS512
Coalescing Filter				
M08	GRP-96-710	GRP-96-711	—	—
M18	GRP-96-640	GRP-96-754	—	GRP-96-685
M28	GRP-96-654	GRP-96-755	—	GRP-96-685
M30	—	—	—	PS512

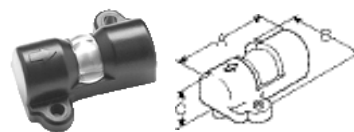
D

Accessories & Repair Kits

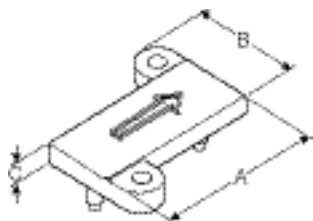
Accessories – Filters



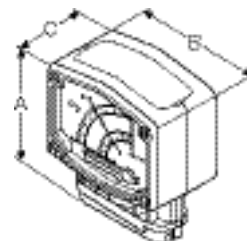
Differential Pressure Indicator
DP2-01-000, DP2-01-001



Differential Pressure Indicator
DP8-01-000



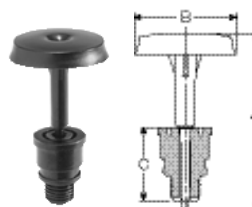
Cap, Differential Pressure Indicator
GRP-95-020, GRP-95-022



Differential Pressure Gauge
DP3-01-000



Automatic Drain
GRP-95-973, GRP-95-981



Piston Drain
GRP-96-716



(Use with GRP-95-981 shown above. Order separately)

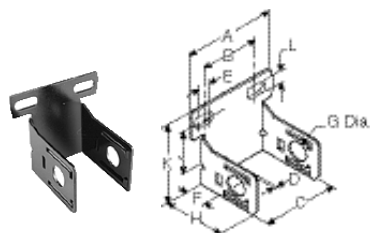
Manual Override for Auto Float Drains
GRP-96-001

Dimensions

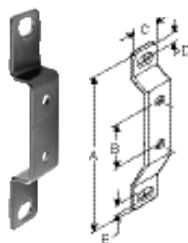
Inches (mm)

Accessories	Part Number	Used On	A	B	C
Differential Pressure Indicator	DP2-01-000	M16, M21, M26, M30, M31, M32	2.12 (54)	1.85 (47)	0.84 (21)
	DP2-01-001	F35, F36, F37, F43, M35, M36, M37, M43, M45			
	DP8-01-000	F18, F28, M18, M28	2.12 (54)	1.85 (47)	.84 (21)
Cap, Differential Pressure Indicator (Pressures over 150 PSIG, 10.3 bar)	GRP-95-020	M16, M21, M26, M30, M31, M32	2.12 (54)	1.85 (47)	0.25 (6.3)
	GRP-95-022	F35, F36, F37, F43, M35, M36, M37, M43, M45			
Differential Pressure Gauge	DP3-01-000	M32, M42	3.0 (75.9)	2.55 (65)	1.54 (39)
Automatic Drains, Nitrile	GRP-95-973	F18, M18, B18 F28, M28, B28 F16, F26, F30, F35, F36, F43	2.93 (74.4)	1.47 (37.3)	1.17 (29.7)
Automatic Drains, Fluorocarbon	GRP-95-981				
Manual Override for Auto Float Drains	GRP-96-001	GRP-95-981	—	—	—
Piston Drain	GRP-96-716	F08, M08, B08	1.70 (43)	.94 (24)	.68 (17)

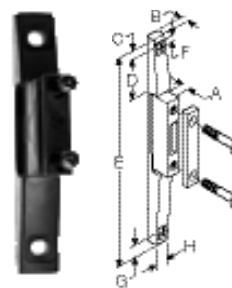
Accessories – Filters



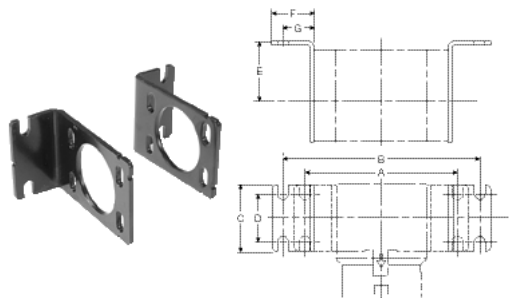
C-Bracket
GPA-97-010



T-Bracket
GPA-96-602

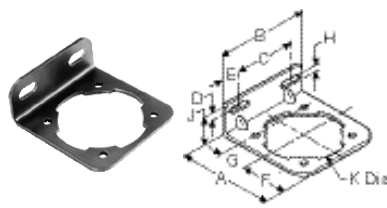


T-Bracket
GPA-96-737
w/ Joiner

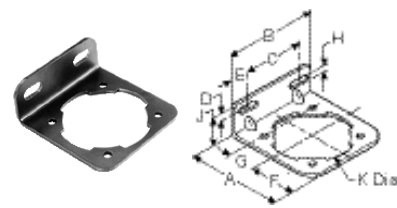


L-Bracket
P3NKA00MW

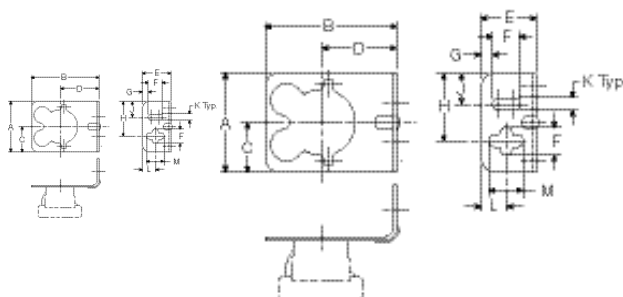
For 1-1/2" BSPP Port Block with E02 fitting application,
use **Mounting Bracket Kit P3NKA00BMW**



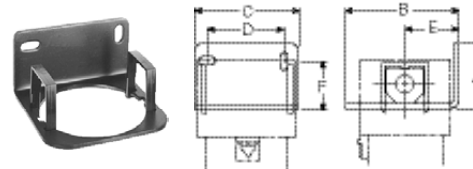
L-Bracket
GPA-96-604



L-Bracket
GPA-96-605



L-Bracket
PS417B



L-Bracket
GPA-95-016, GPA-95-946

Dimensions Inches (mm)

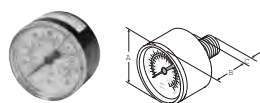
Accessories	Part Number	Used On	A	B	C	D	E	F	G	H	J	K	L	M
C-Bracket	GPA-97-010	F08, M08, B08	2.67 (68)	1.73 (44)	1.57 (40)	.07 (1.8)	.39 (9.9)	1.57 (40)	.78 (20)	2.32 (59)	1.37 (35)	2.41 (61)	.26 (6.6)	—
L-Bracket	GPA-95-016	F16, M16	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	1.60 (41)	—	—	—	—	—	—
	GPA-95-946	F26, M26	2.12 (53)	3.62 (91)	3.80 (96)	2.93 (74)	1.88 (47)	1.60 (41)	—	—	—	—	—	—
	GPA-96-604	F18, M18, B18	2.84 (72)	2.74 (69.5)	1.66 (42)	.38 (9.6)	.54 (14)	1.26 (32)	.88 (22)	.28 (7.1)	1.10 (28)	2.25 (57)	—	—
	GPA-96-605	F28, M28, B28	3.44 (87)	3.00 (76)	1.88 (48)	.38 (9.6)	.56 (14)	1.49 (38)	1.10 (28)	.28 (7.1)	1.10 (28)	2.66 (67.5)	—	—
	P3NKA00MW	F39, B39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	—	—	—	—	—
	PS417B	F03, M03	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)
T-Bracket	GPA-96-602	F18, F28, M18, M28	3.75 (95)	1.25 (32)	.76 (19.3)	.25 (6.3)	.28 (7.1)	—	—	—	—	—	—	—
T-Bracket w/ Joiner	GPA-96-737	F08, M08	.45 (11)	.28 (7.1)	.40 (10)	.67 (17)	3.97 (100.8)	.22 (5.6)	.40 (10)	.64 (16)	—	—	—	—

Accessories – Regulators

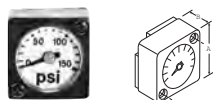
Dimensions Inches (mm)



Flush Mount Gauge*



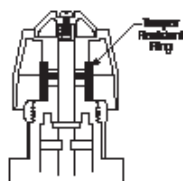
Gauges



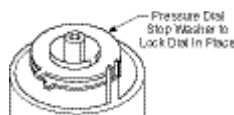
Flush Mount Gauge

Digital Gauge

Accessories		Used On	A	B	C
Flush Mount Series Gauge *For R08/R09 Regulators with date code after November 2023 (4423 Date Code), please use these part numbers when ordering a replacement gauge.	GRP-96-791-04B (0 to 4 bar)	R08, R09	1.06 (26.9)	.63 (16)	-
	GRP-96-792-11B (0 to 11 bar)				
	GRP-96-792-20B (0 to 20 bar)				
	GRP-96-791-060 (0 to 60 psig)				
	GRP-96-791-160 (0 to 160 psig)				
	GRP-96-791-290 (0 to 290 psig)				
Gauges, 5mm 2" Round 1/4" Center Back Mount	K4520N14030 (0 to 30 PSIG)	R18, R28	1.97 (50)	0.94 +(24)	0.71 (18)
	K4520N14060 (0 to 60 PSIG)				
	K4520N14160 (0 to 160 PSIG)				
	K4520N14300 (0 to 300 PSIG)				
Gauges, 1/8 Port, CBM	K4515N18060 (0 to 60 PSIG)	R08	1.64 (41.6)	1.09 (27.6)	.80 (20)
	K4515N18160 (0 to 160 PSIG)				
Flush Mount Series Gauges	K4511SCR060 (0 to 60 PSIG)	R08	1.06 (26.9)	.63 (16)	—
	K4511SCR160 (0 to 160 PSIG)	R08			
	K4511SCR11B (0 to 11 bar)	R08			
Round Digital Gauge, 1/4 Port	K4517N14160D (0 to 160 PSIG)	R18, R28	1-3/4" Diameter		
Tamper Resistant Kit	RPA-95-006	R16, R26, P15, P16	—	—	—
	RRP-95-585	R11, R21, R31, R41			
Tamperproof Lock and Cover Kit	RPA-96-736B	R08, R09, B08	—	—	—
	RPA-96-737B	R18, B18	—	—	—



RPA-95-006



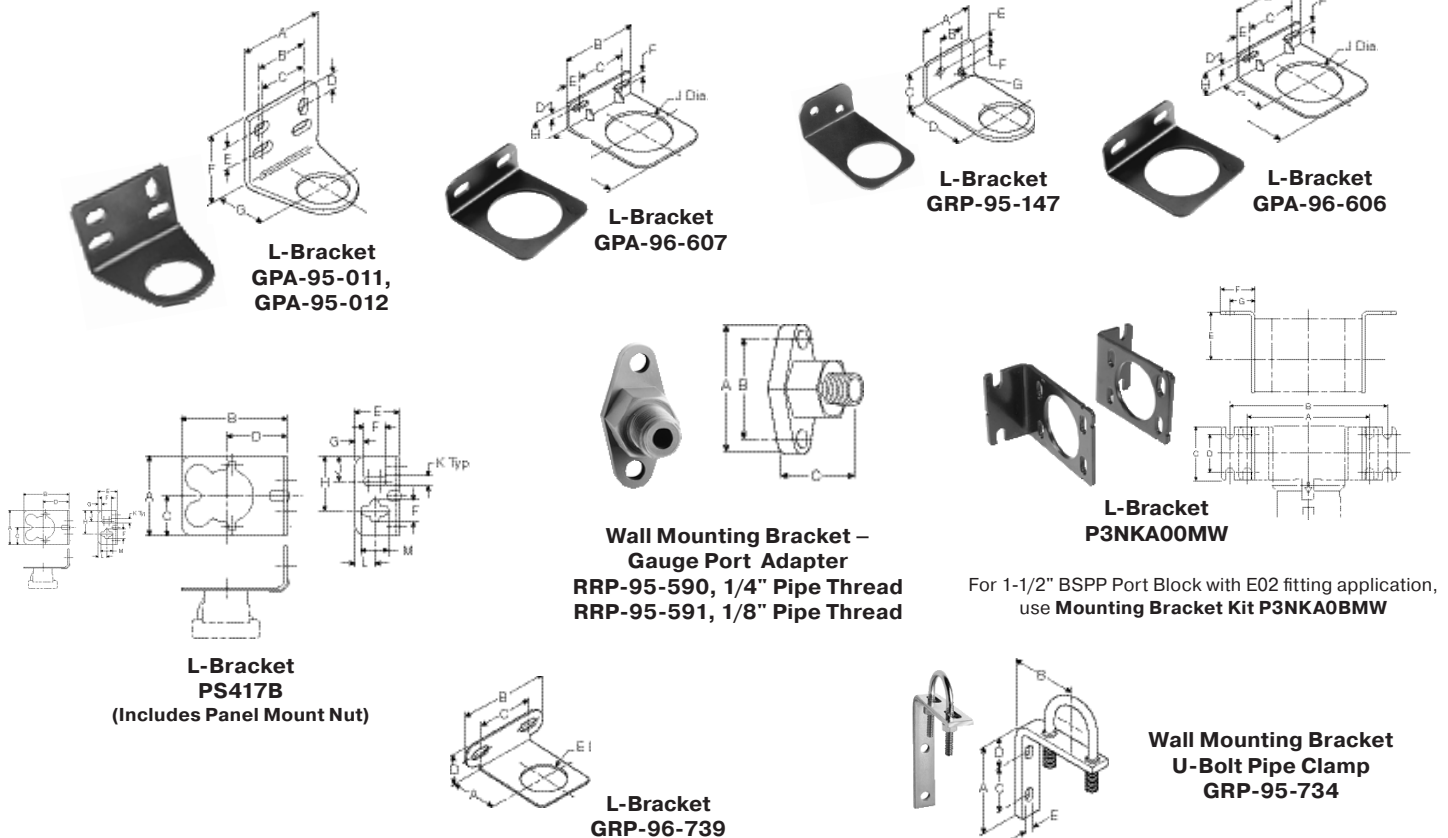
RRP-95-585



Tamperproof Lock and Cover Kit

Tamper Resistant Kit

Accessories – Regulators



Dimensions

Inches (mm)

Accessories		Used On	A	B	C	D	E	F	G	H	J	K	L	M
L-Bracket with Plastic Panel Nut	GPA-95-011	R16, P15, P16	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	—	—	—	—	—
	GRP-95-747	RB3, RA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	—	—	—	—	—
L-Bracket	GPA-95-012	R16, P15, P16	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	—	—	—	—	—
	GRP-95-147	RB3, RA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	—	—	—	—	—
	GPA-95-956	R26	3.00 (76.2)	2.06 (50.8)	—	0.55 (14.0)	3.50 (88.9)	4.05 (102.9)	1.88 (47.8)	—	—	—	—	—
	GRP-96-739	R08, R09	1.57 (40)	2.68 (68)	1.74 (44)	.97 (25)	1.19 (30)	—	—	—	—	—	—	—
	GPA-96-606	R18, R19	2.74 (69.5)	2.74 (69.5)	1.66 (42)	.43 (11)	.54 (14)	.28 (7.1)	1.57 (40)	1.00 (25)	2.0 (51)	—	—	—
	GPA-96-607	R28	3.33 (84.5)	3.00 (76)	1.88 (48)	.43 (11)	.56 (14)	2.40 (61)	1.94 (49)	1.00 (25)	2.40 (61)	—	—	—
	P3NKA00MW	R39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	—	—	—	—	—
	PS417B	R03	1.80 (46)	2.37 (60)	0.90 (23)	1.35 (34)	1.00 (25)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)
Wall Mtg. Bracket Gauge Port Adapter	RRP-95-590	P15, P16, R16, R21, R26, R30, R31, R40, R41	1.87 (47.5)	1.38 (35)	1.25 (31.7)	—	—	—	—	—	—	—	—	—
	RRP-95-591	RB3, RA3, R03	1.87 (47.5)	1.38 (35)	1.09 (27.6)	—	—	—	—	—	—	—	—	—
	GRP-95-734	For All Non-Modular Units Up to 1" N	3.34 (85)	2.76 (70)	1.62 (41)	1.10 (28)	0.30 (7.6)	—	—	—	—	—	—	—

Regulator Replacement Kits

Model	Self-relieving Diaphragm (Nitrile)	Non-relieving Diaphragm (Nitrile)	Valve Assembly Kit	Tamper Resistant Ring	Plastic Panel Nut	Aluminum Panel Nut
R08, R09	—	—	—	—	RPA-96-734	RPA-96-733
R18, R19	—	—	RRP-96-658	—	RRP-96-675B	RRP-96-673
R28	RRP-96-986	RRP-96-987	RRP-96-049	RRP-96-672	RRP-96-676	RRP-96-674
Model	Main Regulating Spring 0-30 PSIG	Main Regulating Spring 0-60 PSIG	Main Regulating Spring 0-125 PSIG	Main Regulating Spring 0-250 PSIG		
R08, R09	GRP-95-111	GRP-96-718	GRP-96-717B	—		
R18, R19	RRP-96-659B	RRP-96-660B	RRP-96-661B	RRP-96-662B		
R28	RRP-96-163	RRP-96-164	RRP-96-165	RRP-96-166		
R39	—	C10A1304	CA101308	CA101317		

Model Regulator	Self-relieving Piston	Non-relieving Piston	Self-relieving Diaphragm	Non-relieving Diaphragm	Repair Kit Self-relieving	Repair Kit Non-relieving	Valve Assembly Kit
R03	—	—	—	—	PS423	PS422	PS424B
R16	—	—	RRP-96-213	RRP-96-216	RRP-95-130	RRP-95-129	RRP-96-215
R21	—	—	—	—	RRP-95-151	—	—
R26	—	—	RRP-96-238	RRP-96-332	RRP-95-951	RRP-95-950	RRP-96-294
R30	—	RRP-95-451	—	—	—	—	RRP-95-159
R31	RRP-95-192	—	—	—	RRP-95-152	—	RRP-96-935
R40	—	RRP-95-451	—	—	RRP-95-161	RRP-95-162	—
R41	RRP-95-192	—	—	—	—	—	RRP-96-935

Model	Self-relieving Diaphragm	Non-relieving Diaphragm	Repair Kit Self-relieving	Repair Kit Non-relieving	Valve Assembly Kit	Fluorocarbon Diaphragm Self-relieving	Fluorocarbon Valve Assembly
Precision Regulator P15 / P16	PRP-95-960	—	PRP-95-004	PRP-95-053	PRP-95-959	PRP-95-073	PPA-95-067

	Pressure Spring 0-15 PSIG	Pressure Spring 0-30 PSIG	Pressure Spring 0-40 PSIG	Pressure Spring 0-50 PSIG	Pressure Spring 0-60 PSIG	Pressure Spring 0-125 PSIG	Pressure Spring 0-160 PSIG	Pressure Spring 0-180 PSIG	Pressure Spring 0-250 PSIG
R16	—	—	—	RRP-95-222	—	RRP-95-224	—	—	RRP-95-218
R21	—	—	RRP-95-906	—	—	—	RRP-95-905	—	—
R26	—	—	—	—	RRP-95-962	GRP-95-225	—	—	RRP-95-219
R30	—	—	—	—	—	RRP-95-226	—	RRP-95-220	—
R31	—	—	RRP-95-906	—	—	—	RRP-95-905	—	—
R40	—	—	—	—	—	RRP-95-226	—	RRP-95-220	—
R41	—	—	RRP-95-906	—	—	—	RRP-95-905	—	—
P15 / P16	RRP-95-233	RRP-95-916	—	RRP-95-222	—	RRP-95-224	—	—	—

Lubricator Replacement Bowl Kits



Model	Manual Drain Kit	Plastic Bowl No Drain Port	Plastic Bowl / Bowl Guard Manual Drain	Plastic Bowl Petcock Drain	Metal Bowl / Sight Gauge Manual Drain
L03	—	PS421	—	—	—
L16	—	LRP-96-937	—	LRP-96-543	GRP-95-133
L08	—	—	LRP-96-736	—	GRP-96-714*
L17	—	LRP-96-937	—	LRP-96-543	GRP-95-133
L18	GRP-96-685	—	LRP-96-701	—	GRP-96-636
L26	—	LRP-95-938	LRP-95-967	LRP-95-958	GRP-95-931
L27	—	LRP-95-938	LRP-95-967	LRP-95-958	GRP-95-931
L28	GRP-96-685	—	LRP-96-702	—	GRP-96-644
L30	—	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676
L34	—	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676
L39	PS512	—	—	—	P3NKA00BSM
L40	—	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676
L50	—	LRP-96-940	LRP-95-830	LRP-96-160	GRP-95-676

*Metal bowl does not have sight gauge. ** No Drain.

D

Accessories & Repair Kits

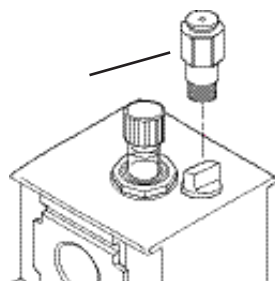
Lubricator Replacement Kits

Model	Siphon Tube Assembly	Bowl O-ring (Nitrile)	Bowl O-ring (Fluorocarbon)	Force Fill Adapter	Fill Plug Kit (Fill Plug & O-ring)	Sight Dome Assembly
L08	LRP-96-731	GRP-96-710	GRP-96-711	N/A	LRP-96-730	LRP-96-301
L18	LRP-96-677	GRP-96-640	GRP-96-754	LRP-96-704	LRP-96-679	LRP-96-720
L28	LRP-96-781	GRP-96-654	GRP-96-755	LRP-96-704	LRP-96-679	LRP-96-720
L39	N/A	N/A	N/A	P3NKA00PK	P3NKA00PL	PS740

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)



Force Fill Adapter

(Optional – Replaces Fill Plug)

Accessories – Lubricators



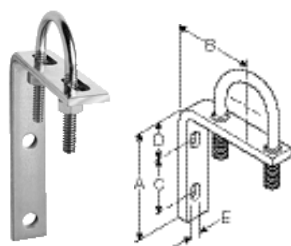
F442 Oil
F442001 - 1 Quart Bottle
F442002 - 1 Gallon
F442005 - 4 Gallon Case

Accessories	Part Number	Used On
Oil	F442001 – 1 Quart Bottle	
	F442002 – 1 Gallon	
	F442005 – 4 Gallon Case	

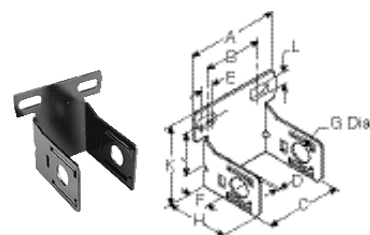
D

Accessories & Repair Kits

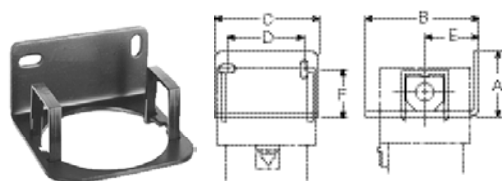
Accessories – Lubricators



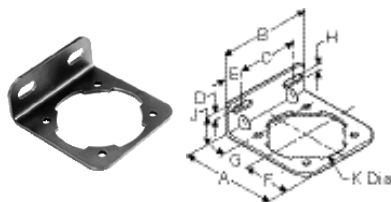
**Wall Mounting Bracket
U-Bolt Pipe Clamp
GRP-95-734**



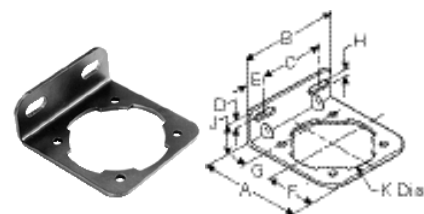
**C-Bracket
GPA-97-010**



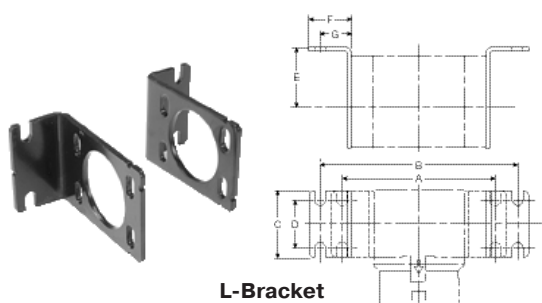
**L-Bracket
GPA-95-016, GPA-95-946**



**L-Bracket
GPA-96-604**

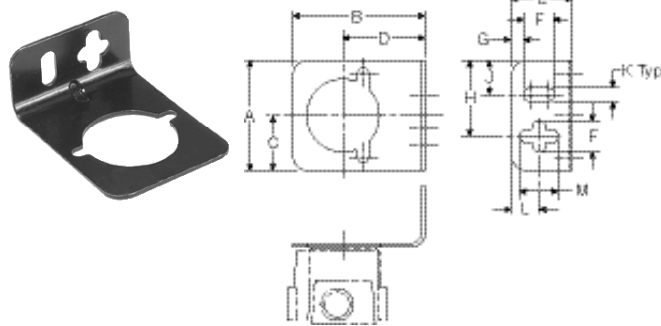


**L-Bracket
GPA-96-605**



**L-Bracket
P3NKA00MW**

For 1-1/2" BSPP Port Block with E02 fitting application,
use **Mounting Bracket Kit P3NKA00MW**



**L-Bracket
PS419**

Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E	F	G	H	J	K	L	M
Wall Mounting Bracket	GRP-95-734	For All Non-Modular Units Up To 1" NPT	3.34 (85)	2.76 (70)	1.62 (41)	1.10 (28)	0.30 (7.6)	—	—	—	—	—	—	—
C-Bracket	GPA-97-010	L08	2.67 (68)	1.73 (44)	1.57 (40)	.07 (1.8)	.39 (9.9)	1.57 (40)	.78 (20)	2.32 (59)	1.37 (35)	2.41 (61)	.26 (6.6)	—
L-Bracket	GPA-95-016	L16 / L17	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	2.12 (54)	—	—	—	—	—	—
	GPA-95-946	L26 / L27	2.12 (53)	3.62 (91)	3.80 (96)	2.93 (74)	1.88 (47)	2.12 (54)	—	—	—	—	—	—
	GPA-96-604	L18	2.84 (72)	2.74 (69.5)	1.66 (42)	.38 (9.6)	.54 (14)	1.26 (32)	.88 (22)	.28 (7.1)	1.10 (28)	2.25 (57)	—	—
	GPA-96-605	L28	3.44 (87)	3.00 (76)	1.88 (48)	.38 (9.6)	.56 (14)	1.49 (38)	1.10 (28)	.28 (7.1)	1.10 (28)	2.66 (67.5)	—	—
	P3NKA00MW	L39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	—	—	—	—	—
	PS419	L03	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)

Filter / Regulators Replacement Repair Kits



Model	Plastic Bowl / Bowl Guard Manual Drain	Metal Bowl / Sight Gauge Manual Drain	Plastic Bowl / Bowl Guard Automatic Drain	Metal Bowl / Sight Gauge Automatic Drain	Plastic Bowl / Bowl Guard Closed Bottom
B08	GRP-96-712	GRP-96-714*	—	—	—
B18	GRP-96-634	GRP-96-636	GRP-96-635	GRP-96-637	GRP-96-638
B28	GRP-96-642	GRP-96-644	GRP-96-643	GRP-96-645	GRP-96-652
B39	—	P3NKA00BSM	—	P3NKA00BSA	—

* Metal bowl does not have sight gauge.

** 12 Series has Piston Style Drain.

Model	Filter Element 5 Micron	Bowl O-ring (Nitrile)	Bowl O-ring (Fluorocarbon)	Filter Retainer Element Baffle	Manual Drain
B08	FRP-96-729	GRP-96-710	GRP-96-711	—	—
B18	FRP-96-639	GRP-96-640	—	FRP-96-641	GRP-96-685
B28	FRP-96-653	GRP-96-654	GRP-96-755	FRP-96-283	GRP-96-685
B39	P3NKA00ESE	—	—	—	PS512
Model	Self-relieving Diaphragm (Nitrile)	Non-relieving Diaphragm (Nitrile)	Valve Assembly Kit	Valve Spring	Service Kit (Relieving)
B08	GRP-96-725	GRP-96-726	—	RRP-96-728	—
B18	RRP-96-656	RRP-96-657	RRP-96-658	—	—
B28	RRP-96-986	RRP-96-987	RRP-96-049	—	—
Model	Main Regulating Spring 0-30 PSIG	Main Regulating Spring 0-60 PSIG	Main Regulating Spring 0-125 PSIG	Main Regulating Spring 0-250 PSIG	
B08	GRP-95-111	GRP-96-718	GRP-96-717	—	
B18	RRP-96-659	RRP-96-660	RRP-96-661	RRP-96-662	
B28	RRP-96-163	RRP-96-164	RRP-96-165	RRP-96-166	
B39	—	C10A1304	CA101308	CA101317	
Tamper Resistant Model	Aluminum Resistant Ring	Plastic Panel Nut	Manual Panel Nut		
B08	—	RPA-96-733	RPA-96-734		
B18	—	RRP-96-673	RRP-96-675		
B28	RRP-96-672	RRP-96-674	RRP-96-676		

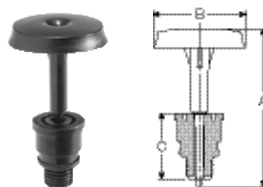
D

Accessories & Repair Kits

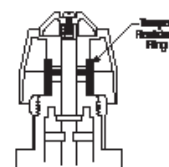
Accessories Filter / Regulators



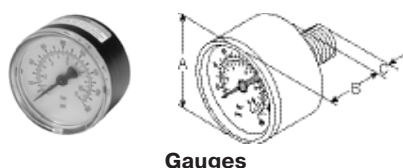
Automatic Drain
GRP-95-973, GRP-95-981



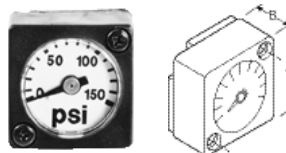
Piston Drain
GRP-96-716



Tamper Resistant Kit
RPA-95-006



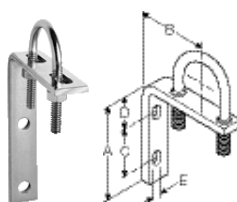
Gauges



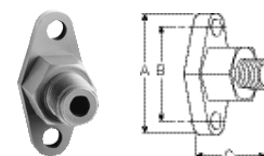
Flush Mount Gauge
08 Series



Digital Gauge



Wall Mounting Bracket
U-Bolt Pipe Clamp
GRP-95-734

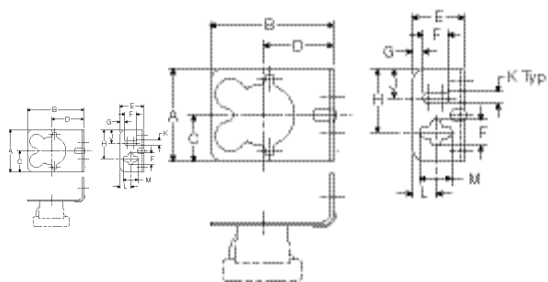


Wall Mounting Bracket
—
Gauge Port Adapter
RRP-95-590

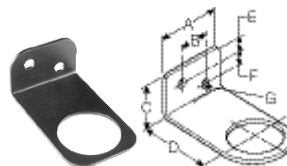
Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E
Automatic Drains, Nitrile	GRP-95-973	B18, B28, CB6	2.93 (74.4)	1.47 (37.3)	1.17 (29.7)	—	—
Automatic Drains, Fluorocarbon	GRP-95-981	B18, B28, CB6					
Piston Drain	GRP-96-716	B08	1.70 (43)	.94 (24)	.68 (17)	—	—
Gauges, 1/8 Port, CBM	K4515N18030 (0 to 30 PSIG)	B03	1.64 (41.6)	1.09 (27.6)	.80 (20)	—	—
	K4515N18060 (0 to 60 PSIG)	B03, BB3, BA3					
	K4515N18160 (0 to 160 PSIG)						
Gauges, 1/4 Port, CBM	K4520N14030W (0 to 30 PSIG)	PC5, PC6	1.96 (49.8)	1.08 (27)	.91 (23)	—	—
	K4520N14060W (0 to 60 PSIG)	CB6, PC5, PC6					
	K4520N14160W (0 to 160 PSIG)						
	K4520N14300W (0 to 300 PSIG)	CB6					
Gauges, 5mm 2" Round 1/4 Center Back Mount	K4520N14030 (0 to 30 PSIG)	B18, B28	1.67 (50)	.94 (24)	.71 (18)	—	—
	K4520N14060 (0 to 60 PSIG)						
	K4520N14160 (0 to 300 PSIG)						
	K4520N14300 (0 to 20 bar)						
Flush Mount Series Gauges	K4511SCR150 (0 to 150 PSIG)	B08	1.06 (26.9)	.63 (16)	—	—	—
	K4511SCR060 (0 to 60 PSIG)						
	K4511SCR11B (0 to 11 bar)						
Round Digital Gauge, 1/4 Port	K4517N14160D (0 to 160 PSIG)	B18, B28	1-3/4" Diameter				
Tamper Resistant Kit	RPA-95-006	CB6, PC5, PC6	—	—	—	—	—
Wall Mtg. Bracket U-Bolt Pipe Clamp	GRP-95-734	For All Non-Modular Units Up to 1" NPT	3.34 (85)	2.76 (70)	1.62 (41)	1.10 (28)	0.30 (7.6)
Wall Mtg. Bracket Gauge Port Adapter	RRP-95-590	CB6, PC5, PC6	1.87 (47.5)	1.36 (34.5)	1.06 (27)	—	—

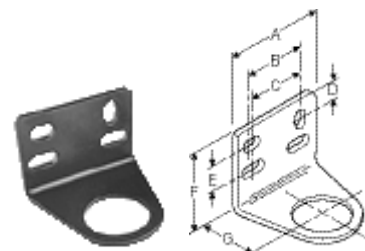
Accessories – Filter / Regulators



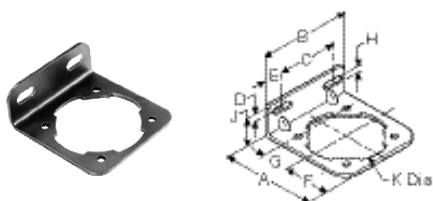
**L-Bracket
PS417B**
(Includes Panel Mount Nut)



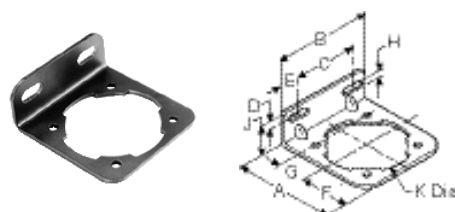
**L-Bracket
GRP-95-147**



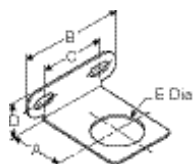
**L-Bracket
GPA-95-011, GPA-95-012**



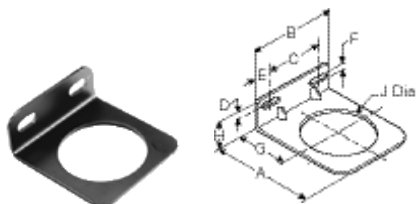
**Body L-Bracket
GPA-96-604**



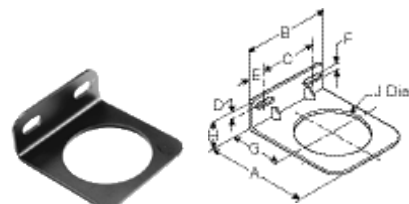
**Body L-Bracket
GPA-96-605**



**L-Bracket
GRP-96-739**



**Bonnet L-Bracket
GPA-96-606**

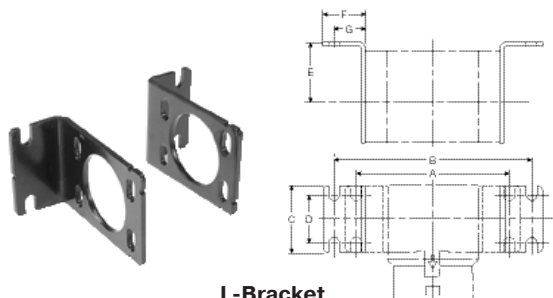


**Bonnet L-Bracket
GPA-96-607**

D

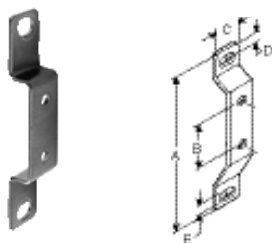
Accessories & Repair Kits

Accessories – Filter / Regulators

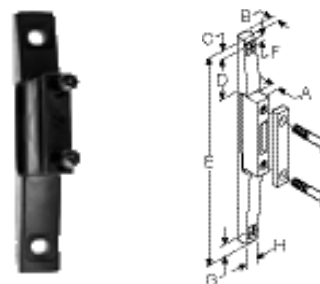


L-Bracket
P3NKA00MW

For 1-1/2" BSPP Port Block with E02 fitting application,
use **Mounting Bracket Kit P3NKA0BMMW**



T-Bracket
GPA-96-602

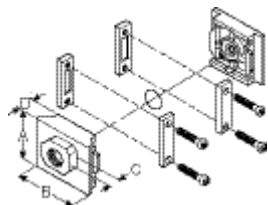


T-Bracket
GPA-96-737
w/ Joiner

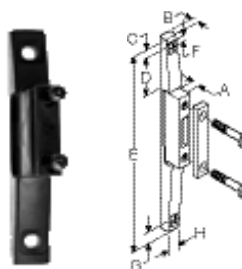
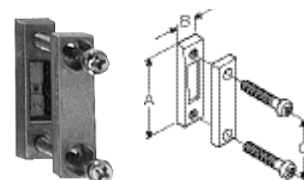
Dimensions Inches (mm)

Accessories	Part Number	Used On	A	B	C	D	E	F	G	H	J	K	L	M
L-Bracket with Plastic Panel Nut	GPA-95-011	CB6, PC5, PC6	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	—	—	—	—	—
	GRP-95-747	BB3, BA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	—	—	—	—	—
L-Bracket	GPA-95-012	CB6, PC5, PC6	2.50 (63.5)	1.60 (41)	1.50 (38)	0.46 (12)	0.62 (16)	1.88 (48)	1.62 (41)	—	—	—	—	—
	GRP-95-147	BB3, BA3	1.50 (38)	0.68 (17)	1.00 (25)	1.75 (44)	0.34 (8.6)	0.31 (7.9)	0.22 (5.6)	—	—	—	—	—
	GPA-96-606	B18	2.74 (69.5)	2.74 (69.5)	1.66 (42)	.43 (11)	.54 (14)	.28 (7.1)	1.57 (40)	1.00 (25)	2.0 (51)	—	—	—
	GPA-96-607	B28	3.33 (84.5)	3.00 (76)	1.88 (48)	.43 (11)	.56 (14)	2.40 (61)	1.94 (49)	1.00 (25)	2.40 (61)	—	—	—
	GRP-96-739	B08	1.57 (40)	2.68 (68)	1.74 (44)	.97 (25)	1.19 (30)	—	—	—	—	—	—	—
	P3NKA00MW	L39	6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	—	—	—	—	—
	PS417B	B03	2.12 (53)	3.62 (91)	3.40 (83)	2.53 (64)	1.88 (47)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)
C-Bracket	GPA-96-604	B18	2.84 (72)	2.74 (69.5)	1.66 (42)	.38 (9.6)	.54 (14)	1.26 (32)	.88 (22)	.28 (7.1)	1.10 (28)	2.25 (57)	—	—
	GPA-96-605	B28	3.44 (87)	3.00 (76)	1.88 (48)	.38 (9.6)	.56 (14)	1.49 (38)	1.10 (28)	.28 (7.1)	1.10 (28)	2.66 (67.5)	—	—
	GPA-97-010	B08	2.67 (68)	1.73 (44)	1.57 (40)	.07 (1.8)	.39 (9.9)	1.57 (40)	.78 (20)	2.32 (59)	1.37 (35)	2.41 (61)	.26 (6.6)	—
T-Bracket	GPA-96-602	B18, B28	3.75 (95)	1.00 (25.4)	.76 (19.3)	.25 (6.3)	.28 (7.1)	—	—	—	—	—	—	—
T-Bracket w/ Joiner	GPA-96-737	B08	.45 (11)	.28 (7.1)	.40 (10)	.67 (17)	3.97 (100.8)	.22 (5.6)	.40 (10)	.64 (16)	—	—	—	—

Modular Accessories – 08 Series



End Block Set

End Block Set
w/ T-BracketT-Bracket
GPA-96-737
w/ JoinerJoiner Set
GPA-96-738
(O-ring not shown)

Dimensions Inches (mm)

Accessories	Part Number	Pipe Size	A	B	C	D	E	F	G	H	J	K
T-Bracket Joiner Set	GPA-96-737	—	.45 (11)	.28 (7.1)	.40 (10)	.67 (17)	3.97 (100.8)	.22 (5.6)	.40 (10)	.64 (16)	—	—
Joiner Set	GPA-96-738	—	1.42 (36)	.39 (9.9)	.98 (26)	—	—	—	—	—	—	—
End Block Set	GPA-97-018	1/8 NPT	1.42 (36)	1.57 (40)	.53 (13.5)	.31 (8)	—	—	—	—	—	—
	GPA-97-019	1/4 NPT										
	GPA-97-020	3/8 NPT										
	GPA-97-066	G 1/8										
	GPA-97-067	G 1/4										
	GPA-97-065	G 3/8										
End Block Set With T-Brackets	GPA-97-025	1/8 NPT	1.42 (36)	1.57 (40)	.53 (13.5)	.31 (8)	—	—	—	—	—	—
	GPA-97-026	1/4 NPT										
	GPA-97-027	3/8 NPT										
	GPA-97-068	G 1/8										
	GPA-97-069	G 1/4										
	GPA-97-070	G 3/8										

D

Accessories & Repair Kits

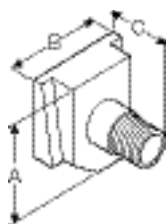
Modular Accessories – 18 / 28 Series



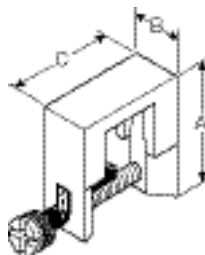
Dimensions Inches (mm)

Accessories	Part Number	Pipe Size	A	B	C	D	E	F	G	H	J	K
T-Bracket w/ Joiner Set	GPA-96-603	—	.35 (8.9)	.87 (22.1)	—	—	—	—	—	—	—	—
Joiner Set	GPA-96-601	—	.35 (8.9)	.87 (22.1)	—	—	—	—	—	—	—	—
End Block	GPA-96-610	1/4 NPT	1.59 (40)	—	—	—	—	—	—	—	—	—
	GPA-96-611	3/8 NPT										
	GPA-96-612	1/2 NPT										
	GPA-96-613	3/4 NPT										
	GPA-96-620	G 1/4										
	GPA-96-621	G 3/8										
	GPA-96-622	G 1/2										
	GPA-96-623	G 3/4										

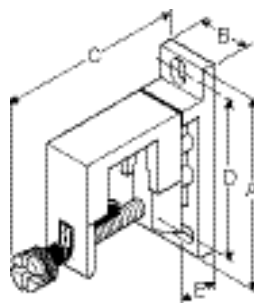
Modular Accessories – 16 / 26 Series



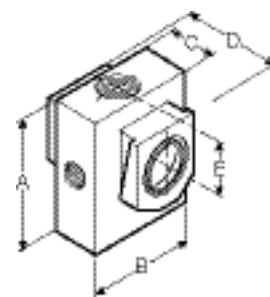
Modular Pipe Adapter
GPA-95-035,
GPA-95-036,
GPA-95-037



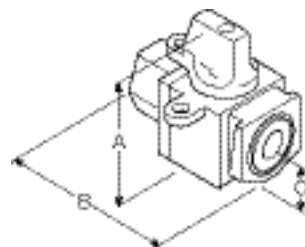
Modular Sleeve
GPA-95-292



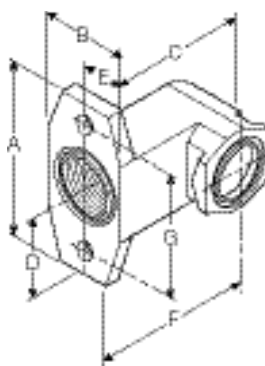
Modular Sleeve with T-Bracket
GPA-95-969



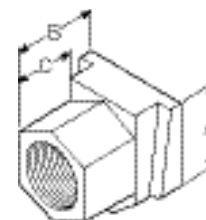
**Modular Manifold Block
(3 Auxiliary Ports)**
GPA-95-919



Modular 3-Way Shut-off Valve
GPA-95-096,
GPA-95-097,
GPA-95-098



Right-Angle Bracket
GPA-95-042



**Modular Connecting
End Block Set**
GPA-95-223, -224,
-225, -320, -321

Dimensions Inches (mm)

Accessories	Part Number	Pipe Size NPT	A	B	C	D	E	F	G
Modular Pipe Adapter	GPA-95-035 GPA-95-036 GPA-95-037	1/4 3/8 1/2	1.25 (31.7)	1.25 (31.7)	1.14 (28.9)	—	—	—	—
Modular Sleeve	GPA-95-292	—	2.15 (54.6)	0.82 (20.8)	1.92 (48.8)	—	—	—	—
Modular Sleeve With T-Bracket	GPA-95-969	—	3.60 (91.4)	.82 (20.8)	3.43 (87.1)	2.98 (75.7)	0.78 (19.8)	—	—
Modular Manifold Block (3 Auxiliary Ports)	GPA-95-919	1/4	2.30 (58.4)	2.00 (50.8)	0.72 (18.3)	1.57 (39.9)	0.98 (24.9)	—	—
Modular 3-Way Shut-off Valve	GPA-95-096 GPA-95-097 GPA-95-098	1/4 3/8 1/2	2.38 (60.4)	2.51 (63.7)	0.69 (17.5)	—	—	—	—
Modular Right Angle Bracket	GPA-95-042	—	2.75 (69.8)	1.25 (31.7)	2.38 (60.4)	1.00 (25.4)	0.63 (16.0)	1.75 (44.5)	2.00 (50.8)
Modular Connecting End Block Set	GPA-95-223 GPA-95-224 GPA-95-225 GPA-95-320 GPA-95-321	1/4 3/8 1/2 3/4 1	1.25 (31.7)	1.19 (30.2)	0.75 (19.0)	—	—	—	—

Modular Accessories – 90 Series

Description	Connection	Weight kg (lb)	Part number	
0.01 micron element kit			P3YKA00ESC	
5 micron element kit			P3YKA00ESE	
Adsorber element kit			P3YKA00ESA	
Angle bracket + metal lock ring			P3YKA00MS	
Bowl kit with combined manual / semi-auto drain			P3YKA00BSC	
Bowl kit with auto drain			P3YKA00BSA	
Bowl kit			P3YKA00BSN	
Connector o-ring kit	Qty: 5		P3YKA08CY	
Differential pressure indicator kit			P3YKA00RQ	
Diaphragm kit (relieving type)			P3YKA00RR	
Diaphragm kit (non-relieving type)			P3YKA00RN	
Key lock (replacement)			P3XKA00AS	
Lubricator oil	F442001 - 1 Qt.	0.92 (2.03)	F442001	
	F442002 - 1 Gal		F442002	
Neck mounting bracket kit		3.75 (8.27)	P3YKA00MS	
P3Y connecting kit		0.05 (0.11)	P3YKA00CB	
Panel mounting nut (Aluminum)		0.70 (1.54)	P3YKA00MM	
Pressure gauge	0 to 10 bar (0 to 160 psig)	1/4"	0.06 (0.13)	
	0 to 20 bar (0 to 300 psig)	1/4"	0.06 (0.13)	
Refill plug			P3YKA00PL	
Wall mounting brackets		0.2 (0.44)	P3YKA00CW	

D

Accessories & Repair Kits

Notes

D

Accessories & Repair Kits



Stainless Steel Compressed Air Treatment Products

E

Stainless Steel Products

Particulate FiltersE3
SF1 E4
SF2 E6

Coalescing FiltersE9
SM1 E10
SM2 E12

Regulators E15
SR1 E16
SR2 E18

Filter / Regulators E21
SB1 E22
SB2 E24

Lubricators..... E27
SL2 E28

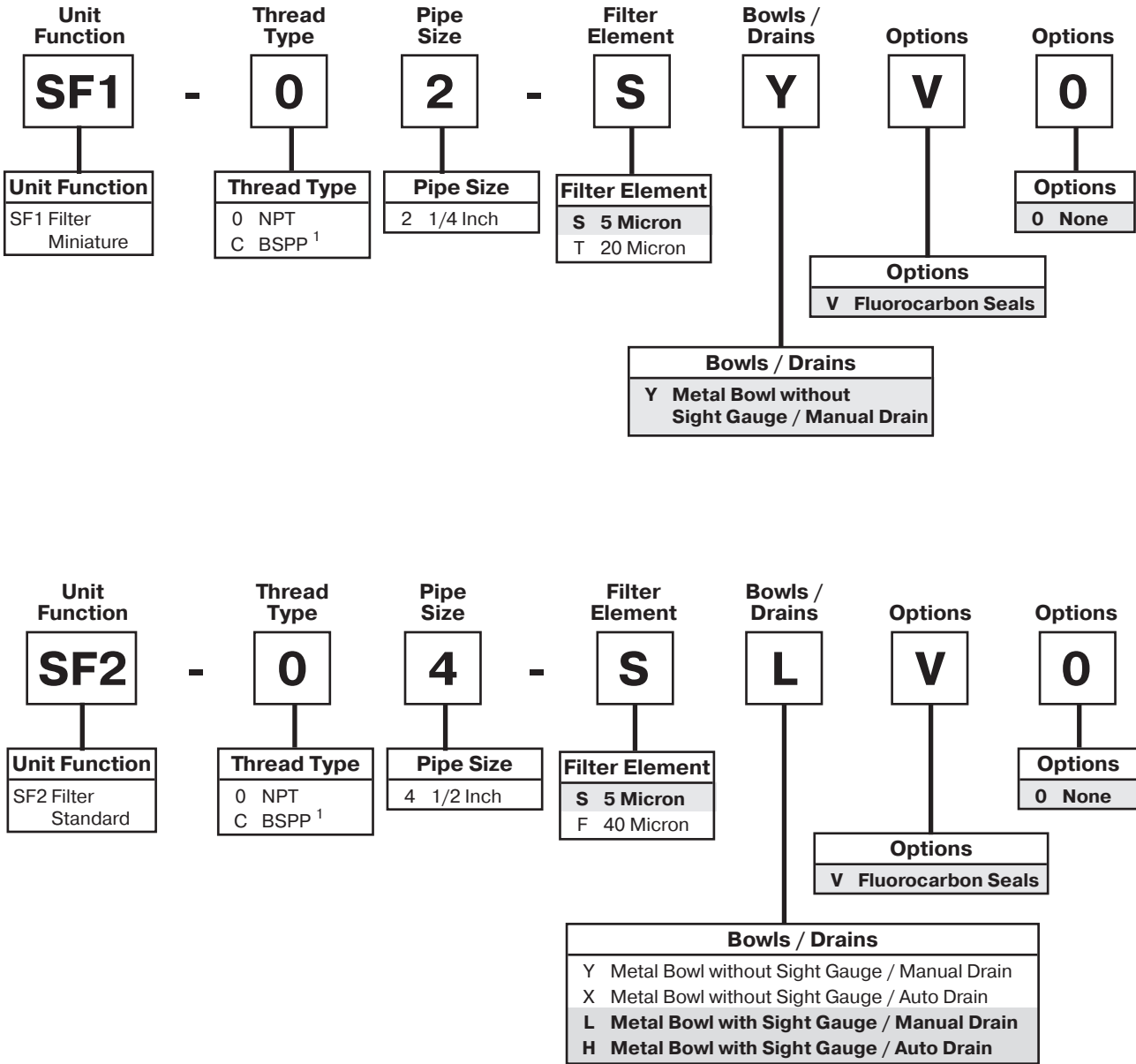
Notes



Stainless Steel Products

Particulate Filter Numbering System

= “Most Popular”



¹ ISO, R228 (G Series)

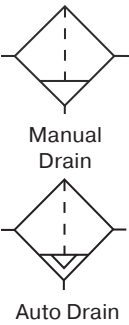
“SF” Series Filters, Type “A” 5 micron elements: All Wilkerson Type “A” 5 micron elements **meet or exceed** ISO Class 3 for maximum particle size and concentration of solid contaminants.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SF1 - 0 2 - S Y V 0

NOTE:All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Filter – Miniature SF1

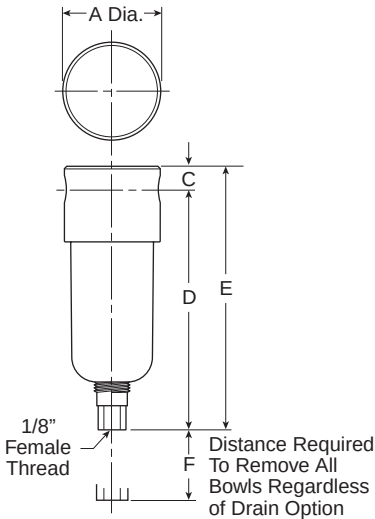


SF1-02-SYV0

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Fluorocarbon Seals Standard
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/4" - 23 SCFM§

§SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.



Dimensions

Models	Inches (mm)	A	C	D	E	F
Miniature Unit SF1-02-XXXX		1.57 (40)	0.31 (8)	3.69 (94)	4.00 (102)	1.58 (40)

= "Most Popular"

Specifications

Flow Capacity*	Port Size	5 Micron
	1/4	23 SCFM
Bowl Capacity		1.0 Ounce
Filter Rating		5 Micron
Port Threads		1/4 Inch
Pressure & Temperature Ratings –		
Metal Bowl –	0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)	
Auto Pulse Drain –	10 to 175 PSIG (0.7 to 12 bar) 32°F to 150°F (0°C to 66°C)	
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).		
Useful Retention**		0.4 Ounce
Weight		0.6 lb. (0.27 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
** Useful Retention refers to volume below the quiet zone baffle.

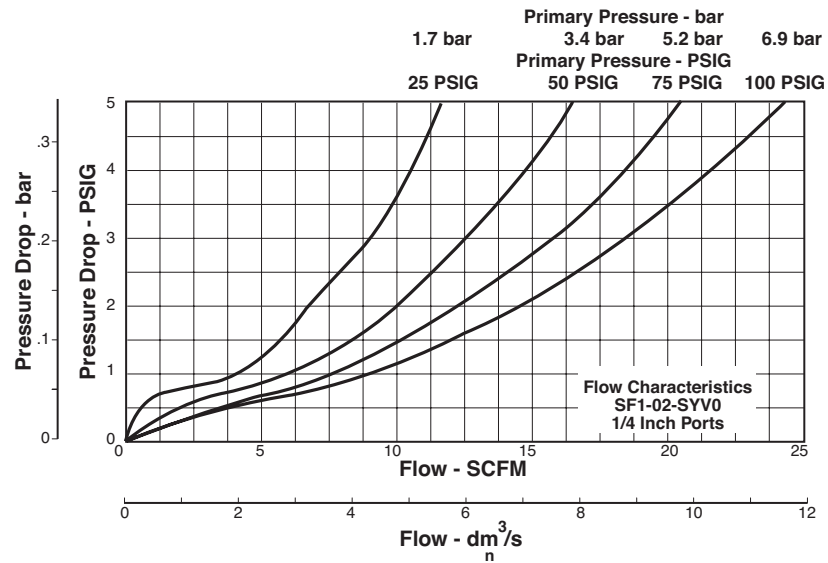
Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Deflector	Acetal
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Polyethylene
Seals	Fluorocarbon

= "Most Popular"

SF1 Filter Kits & Accessories

- Filter Element Kits –
- Particulate (5 Micron) SRP-96-001
- Particulate (20 Micron) SRP-96-002
- Manual Drain –
- Small (Old) SRP-96-008
- Large (New) SAP05481
- Pipe Nipple – 1/4" 316 Stainless Steel..... SRP-96-009

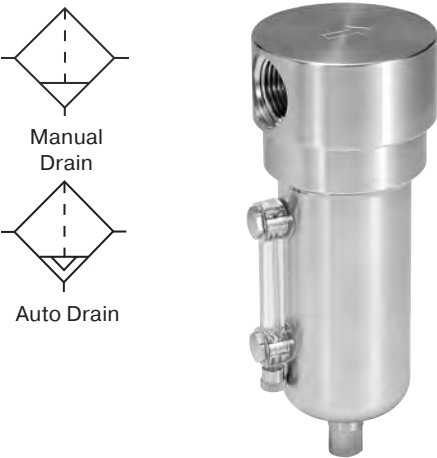


Ordering Information

Model Type	Port Size	Model Number
Manual Drain	1/4	SF1-02-SYV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter – Standard SF2

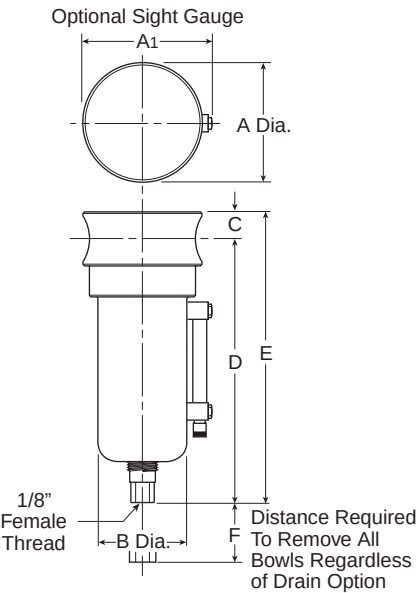
 = “Most Popular”

SF2-04-SLV0

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/2" - 70 SCFM§

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.



Dimensions

Models	Inches (mm)	A	A1	B	C	D	E	F
Miniature Unit SF2-04-XXXX		2.38 (60)	2.50 (64)	1.75 (44)	0.56 (14)	5.00 (127)	5.56 (141)	2.12 (54)

Specifications

Flow Capacity*	Port Size 1/2	5 Micron 70 SCFM
Bowl Capacity	4.0 Ounces	
Filter Rating	5 Micron	
Port Threads	1/2 Inch	
Pressure & Temperature Ratings –		
Metal Bowl –	0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)	
Metal Bowl with Sight Gauge –	0 to 250 PSIG (0 to 17.2 bar) 0°F to 150°F (-18°C to 66°C)	
Automatic Float Drain –	0 to 175 PSIG (0 to 12 bar) 32°F to 150°F (0°C to 66°C)	

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention**	1.7 Ounce
Weight	1.9 lb. (0.85 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
** Useful Retention refers to volume below the quiet zone baffle.

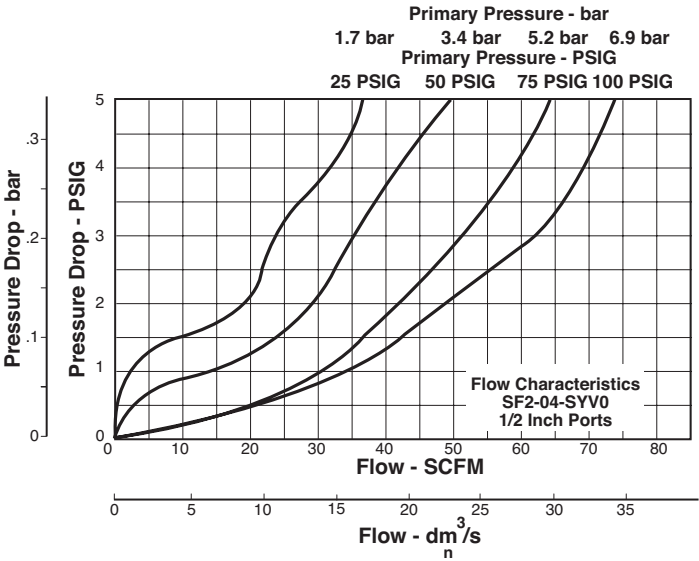
Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Deflector	Acetal
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Polyethylene
Seals	Fluorocarbon
Sight Gauge	Isoplast

= “Most Popular”

SF2 Filter Kits & Accessories

- Drain Kit –
Automatic Drain SRP-96-027
- Manual Drain –
Small (Old) SRP-96-008
Large (New) SAP05481
- Filter Element Kits –
Particulate (40 Micron) SRP-96-024
Particulate (5 Micron) SRP-96-023
- Liquid Level Sight Gauge Kit..... SRP-96-026
- Pipe Nipple – 1/2" 316 Stainless SteelSRP-96-010



Ordering Information

Model Type	Port Size	Model Number	Model Number
Manual Drain	1/2	SF2-04-SLV0	—
Automatic Drain	1/2	—	SF2-04-SHV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

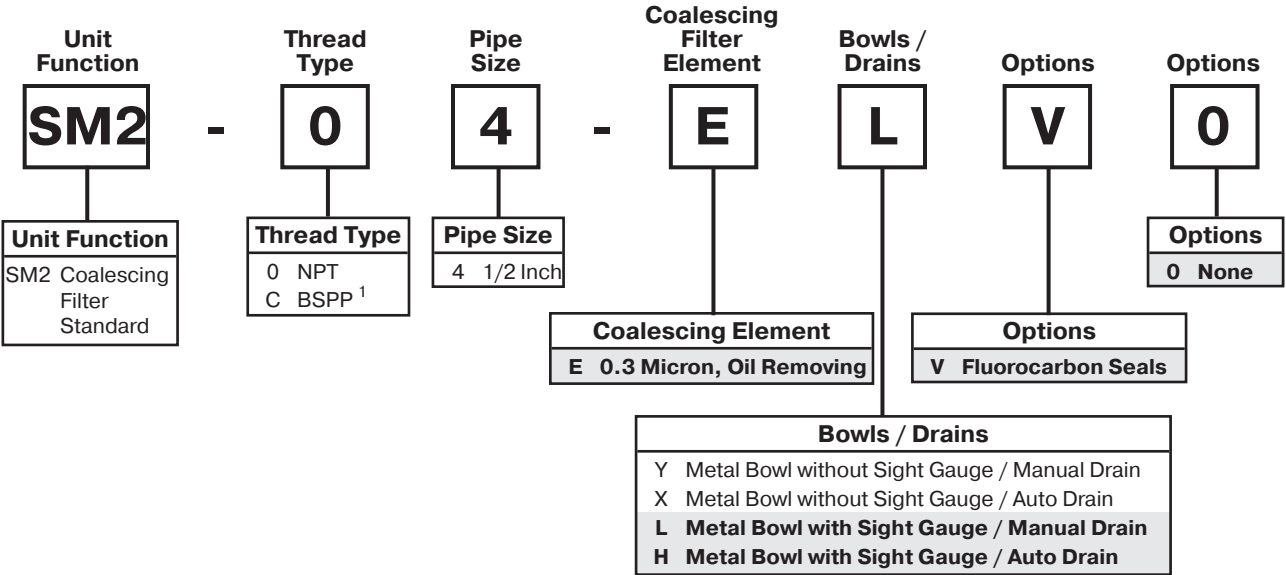
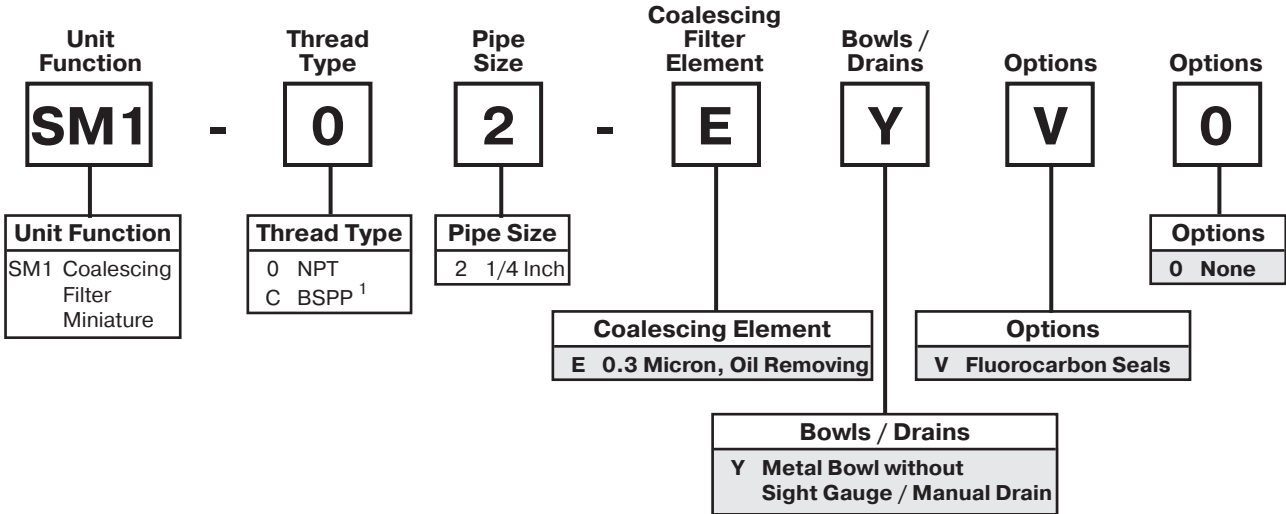
Notes



Stainless Steel Products

Coalescing Filter Numbering System

= "Most Popular"



¹ ISO, R228 (G Series)

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SM1 - 0 2 - E Y V 0

Coalescing Filter – Miniature SM1

 = “Most Popular”

SM1-02-EYV0

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/4" - 16 SCFM[§]

[§]SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

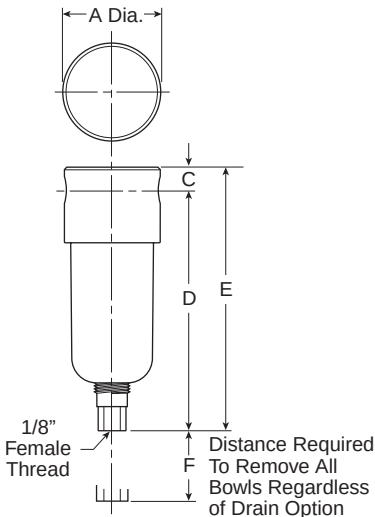
Specifications

Flow Capacity*	Port Size 1/4	0.3 Micron 16 SCFM
Bowl Capacity	1.0 Ounces	
Filter Rating	0.3 Micron	
Port Threads	1/4 Inch	
Pressure & Temperature Ratings –		
Metal Bowl –	0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)	
Auto Pulse Drain –	10 to 175 PSIG (0.7 to 12 bar) 32°F to 150°F (0°C to 66°C)	
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).		
Useful Retention**	0.4 Ounce	
Weight	0.6 lb. (0.27 kg)	

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
** Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Drain (Manual)	316 Stainless Steel
Element Holder	Acetal
Filter Element	Borosilicate Fiber
Seals	Fluorocarbon



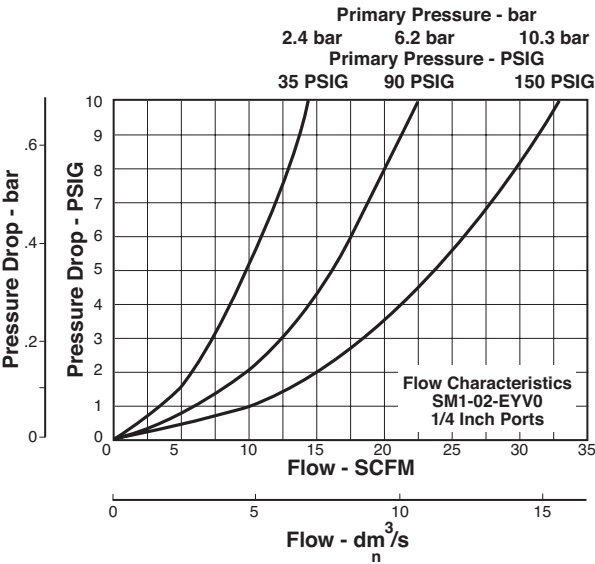
Dimensions

Models	Inches (mm)	A	C	D	E	F
Miniature Unit SM1-02-XXXX		1.57 (40)	0.31 (8)	3.69 (94)	4.00 (102)	1.58 (40)

= “Most Popular”

SM1 Filter Kits & Accessories

- Filter Element Kits – 0.3 Micron SRP-96-005
- Manual Drain –
- Small (Old) SRP-96-008
- Large (New) SAP05481
- Pipe Nipple – 1/4" 316 Stainless Steel..... SRP-96-009



Ordering Information

Model Type	Port Size	Model Number
Manual Drain	1/4	SM1-02-EYV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Coalescing Filter – Standard SM2

 = “Most Popular”

SM2-04-ELV0

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Meets NACE Specifications MR-01-75/ISO 15156
- 1/8" Female Threaded Drain
- High Flow: 1/2" - 45 SCFM[§]

[§]SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

Specifications

Flow Capacity*	Port Size 1/2	0.3 Micron 46 SCFM
Bowl Capacity	4.0 Ounces	
Filter Rating	0.01 Micron	
Port Threads	1/2 Inch	
Pressure & Temperature Ratings –		
Metal Bowl –	0 to 300 PSIG (0 to 20.7 bar) 0°F to 180°F (-18°C to 82°C)	
Metal Bowl with Sight Gauge –	0 to 250 PSIG (0 to 17.2 bar) 0°F to 150°F (-18°C to 66°C)	
Automatic Float Drain –	0 to 175 PSIG (0 to 12 bar) 32°F to 150°F (0°C to 66°C)	

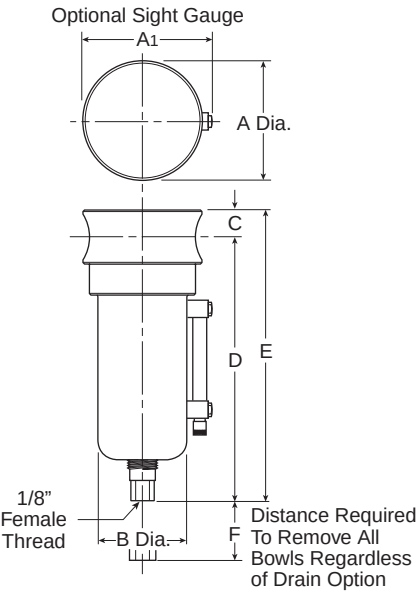
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention**	1.7 Ounce
Weight	1.9 lb. (0.85 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
** Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Drain	316 Stainless Steel
Element Holder	Acetal
Filter Element	Borosilicate Fiber
Seals	Fluorocarbon
Sight Gauge	Isoplast



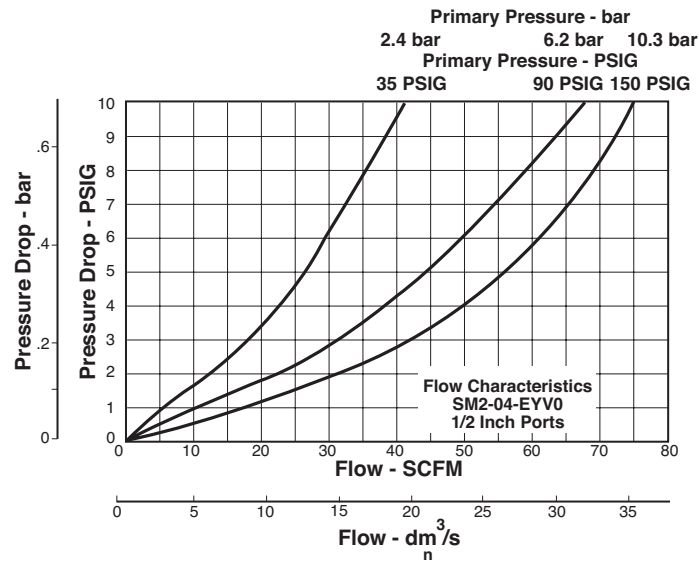
Dimensions

Models	Inches (mm)	A	A1	B	C	D	E	F
Miniature Unit SM2-04-XXXX		2.38 (60)	2.50 (64)	1.75 (44)	0.56 (14)	5.00 (127)	5.56 (141)	2.12 (54)

= "Most Popular"

SM2 Filter Kits & Accessories

- Drain Kit –
- Automatic Drain SRP-96-007
- Manual Drain –
- Small (Old) SRP-96-008
- Large (New) SAP05481
- Filter Element Kits – 0.01 Micron SRP-96-006
- Liquid Level Sight Gauge Kit..... SRP-96-026
- Pipe Nipple – 1/2" 316 Stainless SteelSRP-96-010



Ordering Information

Model Type	Port Size	Model Number	Model Number
Manual Drain	1/2	SM2-04-ELV0	—
Automatic Drain	1/2	—	SM2-04-EHV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

E

Stainless Steel Products

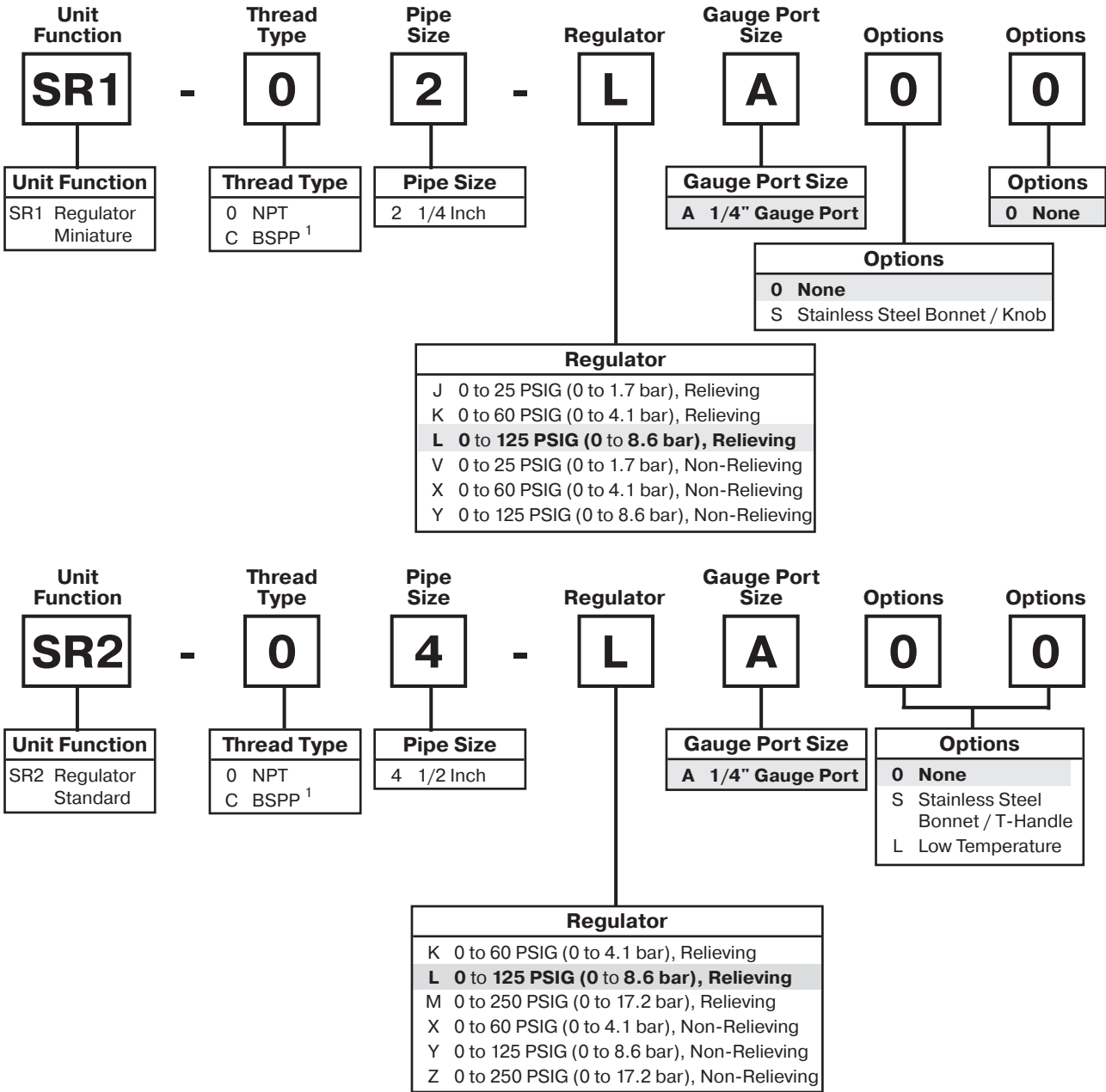
Notes



Stainless Steel Products

Regulator Numbering System

= "Most Popular"



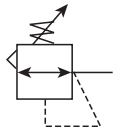
¹ ISO, R228 (G Series)

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SR1 - 0 2 - L A 0 0

Regulator – Miniature

SR1

 = "Most Popular"


SR1-02-LA00

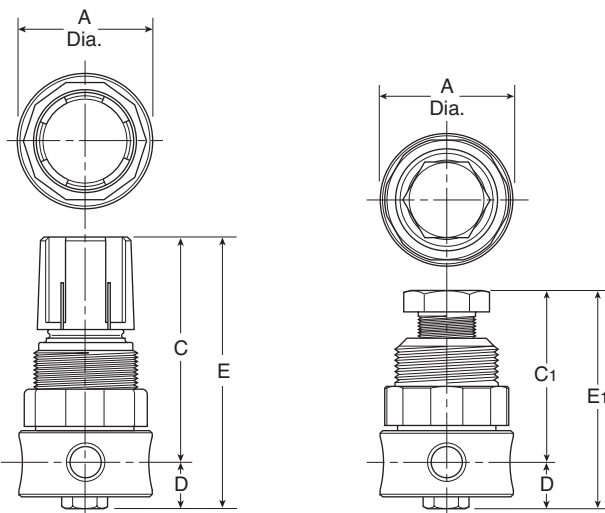


SR1-02-LAS0

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Meets NACE Specifications MR-01-75/ISO 15156
- High Flow: 1/4" – 12 SCFM[§]

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.



Dimensions

Models	Inches (mm)	A	C	C ₁	D	E	E ₁
Miniature Unit SR1-02-XXXX		1.56 (40)	2.56 (65)	2.17 (55)	0.50 (13)	3.06 (78)	2.67 (68)

Specifications

Flow Capacity*	Port Size 1/4	12 SCFM
Gauge Port		1/4 Inch
Port Threads		1/4 Inch

Pressure & Temperature Ratings –		
SR1-02-LA00	300 PSIG Max (20.7 bar)	0°F to 150°F (-18°C to 66°C)
SR1-02-LAS0	300 PSIG Max (20.7 bar)	0°F to 180°F (-18°C to 82°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Weight	0.5 lb. (0.23 kg)
--------	-------------------

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Adjusting Knob (SR1-02-LAS0)	316 Stainless Steel
Adjusting Knob (SR1-02-LA00)	Polypropylene
Body	316 Stainless Steel
Bonnet (SR1-02-LAS0)	316 Stainless Steel
Bonnet (SR1-02-LA00)	Acetal
Bottom Plug	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

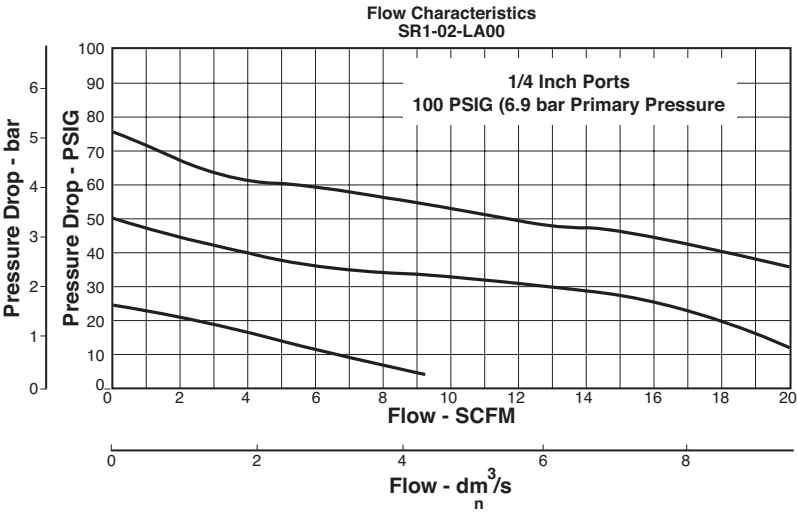
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

SR1 Regulator Kits & Accessories

- Bonnet Kit SR1-02-LA00 (Knob Included)SRP-96-017
- Bonnet Kit SR1-02-LAS0CKR354YSS
- Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 1-1/2" Face..... K4515N14160SS
- Mounting Bracket (Stainless) 161X57-SS
- Panel Mount Nut –
StainlessSRP-96-019
Plastic R05X51-P
- Pipe Nipple –
1/4" 316 Stainless Steel SRP-96-009
- Service Kit –
RelievingSRP-96-013
Non-RelievingSRP-96-014
- Springs –
0-25 PSIG Range..... SPR-375-2-SS
0-60 PSIG Range SPR-376-1-SS
0-125 PSIG Range SPR-377-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.25" dia. (32mm) hole required for panel mounting
(order panel nut separately).

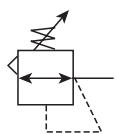


Ordering Information

Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 25 PSIG (0 to 1.7 bar)	0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/4	SR1-02-LA00	SR1-02-JA00	SR1-02-KA00
Non-Relieving	1/4	SR1-02-YA00	SR1-02-VA00	SR1-02-XA00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Regulator – Standard SR2

 = "Most Popular"


SR2-04-LA00

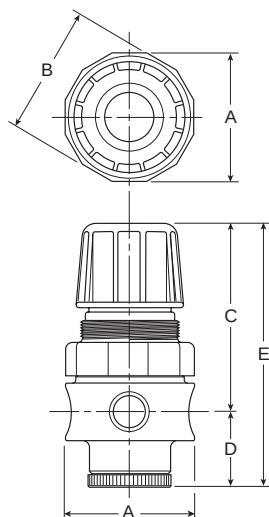
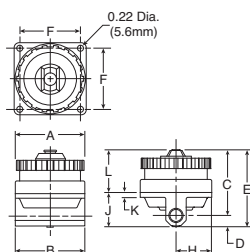


SR2-04-LAS0

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- Meets NACE Specifications MR-01-75/ISO 15156
- Low Temperature Version Available
- High Flow: 1/2" – 80 SCFM[§]

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.



Dimensions

Models	Inches (mm)	A	A1	B	B1	C	C1	D	E	E1
Miniature Unit SR2-04-XXXX		2.36 (60)	3.36 (85)	2.43 (62)	2.35 (60)	3.59 (91)	4.70 (119)	1.38 (35)	4.97 (126)	6.08 (154)

Specifications

Flow Capacity*	Port Size	80 SCFM
	1/2	
Gauge Port		1/4 Inch
Port Threads		1/2 Inch

Pressure & Temperature Ratings –	
SR2-04-LA00 –	300 PSIG Max (20.7 bar) 0°F to 150°F (-18°C to 66°C)
SR2-04-LAS0 –	300 PSIG Max (20.7 bar) 0°F to 180°F (-18°C to 82°C)

Option "L" Minimum Operating Temperature† --40°F (-40°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Weight	1.79 lb. (0.81 kg)
--------	--------------------

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

† **Note:** "Low Temperature" option is intended for applications where the ambient temperature may be down to -40° C/F. Air supply must be free of moisture to prevent ice formation and malfunction of units. These units contain EPDM seals. Make sure any oils in the airstream are compatible.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet / Tee Handle (SR2-04-LAS0)	316 Stainless Steel
Bonnet / Knob (SR2-04-LA00)	Acetal
Bottom Plug	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

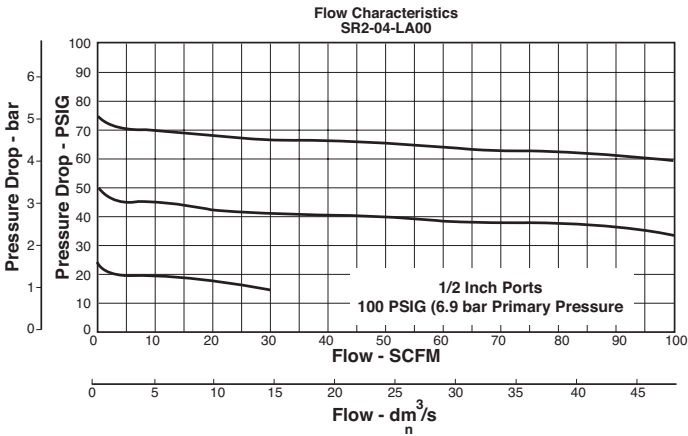
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

SR2 Regulator Kits & Accessories

- Bonnet Kit SR2-04-LA00 (Knob)SRP-96-018
- Bonnet Kit SR2-04-LAS0 (T-Handle)..... CKR11YSS
- Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 2" Face..... K4520N14160SS
- Mounting Bracket (Stainless) R10Y57-SS
- Panel Mount Nut –
Stainless SRP-96-020
PlasticR10X51-P
- Pipe Nipple –
1/2" 316 Stainless SteelSRP-96-010
- Service Kit –
RelievingSRP-96-011
Non-RelievingSRP-96-012
- Springs –
0-60 PSIG Range SPR-388-1-SS
0-125 PSIG Range SPR-389-1-SS
0-250 PSIG Range..... SPR-390-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.75" dia. (44.5 mm) hole required for panel mounting
(order panel nut separately).



Ordering Information

Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 250 PSIG (0 to 17.2 bar)
Relieving	1/2	SR2-04-LA00	SR2-04-KA00	SR2-04-MA00
Non-Relieving	1/2	SR2-04-YA00	SR2-04-XA00	SR2-04-ZA00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

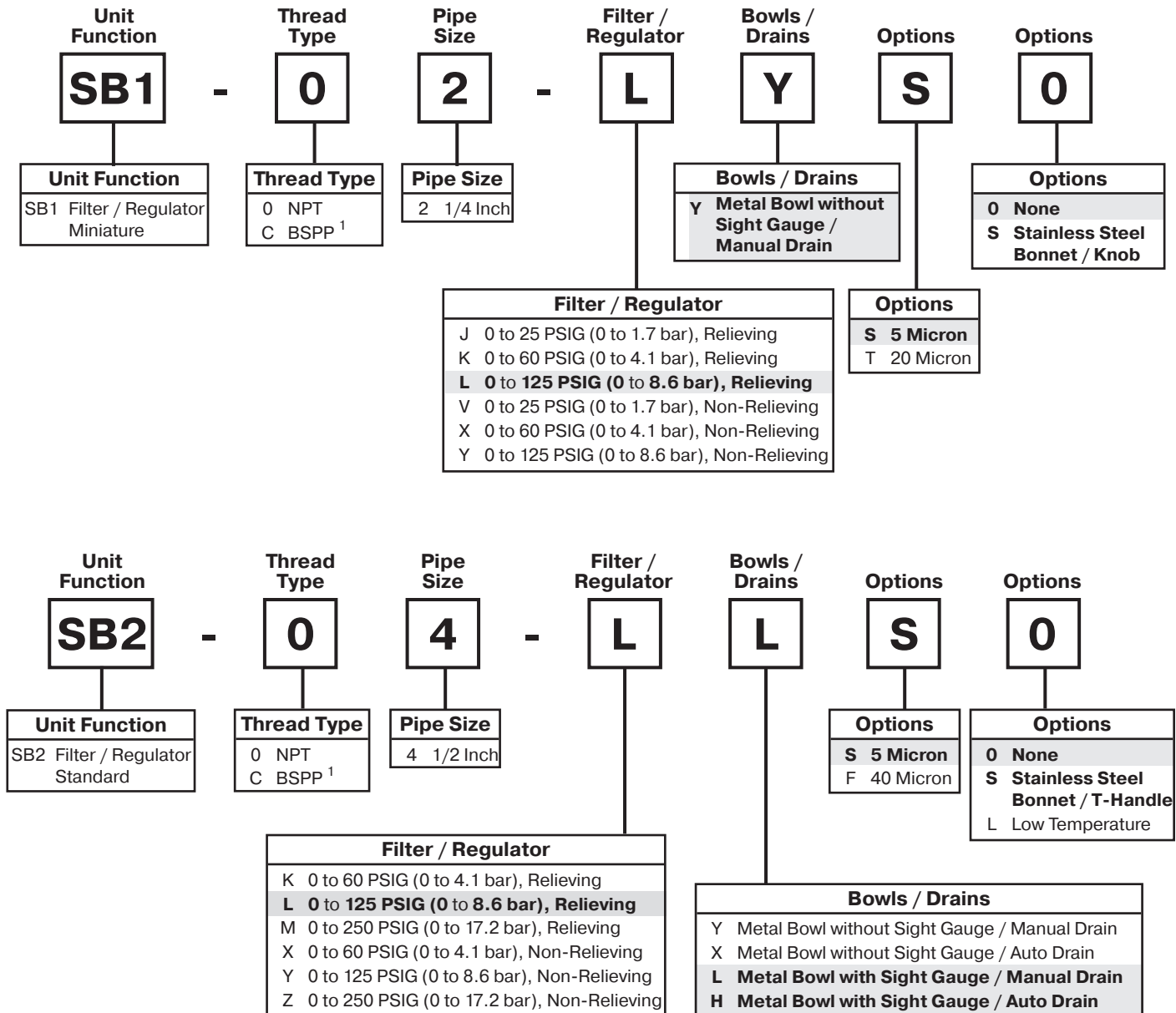
Notes



Stainless Steel Products

Filter / Regulator Numbering System

 = "Most Popular"



¹ ISO, R228 (G Series)

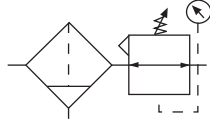
"SB" Series Filters / Regulators, Type "A" 5 micron elements: All Wilkerson Type "A" 5 micron elements **meet or exceed** ISO Class 3 for maximum particle size and concentration of solid contaminants.

NOTE: All classes above refer to International Standards Organization (ISO) standard 8573-1, pertaining to maximum particle size and concentration of solid contaminants, and maximum oil content.

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

SB1 - 0 2 - L Y S 0

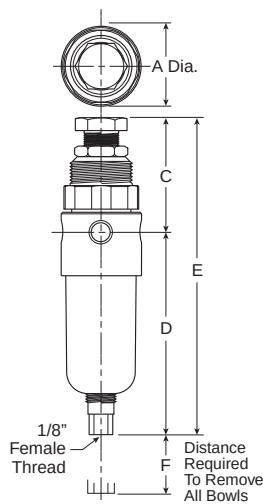
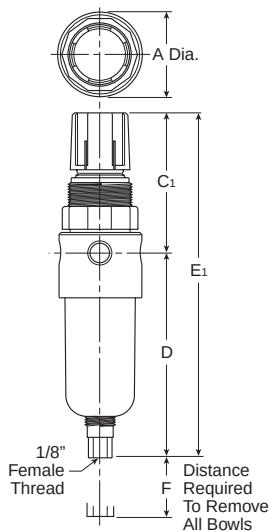
Filter / Regulator – Miniature SB1

 = "Most Popular"
**SB1-02-LYS0****SB1-02-LYSS**

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- 1/8" Female Threaded Drain
- Meets NACE Specifications MR-01-75/ISO 15156.
- High Flow: 1/4" – 12 SCFM[§]

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.



Dimensions

Models	Inches (mm)	A	C	C ₁	D	E	E ₁	F
Miniature Unit SB1-02-XXXX		1.56 (40)	2.17 (55)	2.63 (67)	3.63 (92)	5.80 (147)	6.26 (159)	1.58 (40)

Specifications

Flow Capacity*	Port Size 1/4	5 Micron 12 SCFM
Bowl Capacity	1.0 Ounces	
Filter Rating	5 Micron	
Gauge Port	1/4 Inch	
Port Threads	1/4 Inch	
Pressure & Temperature Ratings –		
SB1-02-LYS0 –	300 PSIG Max (20.7 bar) 0°F to 150°F (-18°C to 66°C)	
SB1-02-LYSS –	300 PSIG Max (20.7 bar) 0°F to 180°F (-18°C to 82°C)	
Auto Pulse Drain –	10 to 175 PSIG (0.7 to 12 bar) 32°F to 150°F (0°C to 66°C)	

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention **	0.4 Ounce
Weight	0.8 lb. (0.36 kg)

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

** Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet (SB1-02-LYS0)	Acetal
Bonnet (SB1-02-LYSS)	316 Stainless Steel
Bottom Plug	316 Stainless Steel
Knob (SB1-02-LYS0)	Polypropylene
Knob (SB1-02-LYSS)	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon

WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

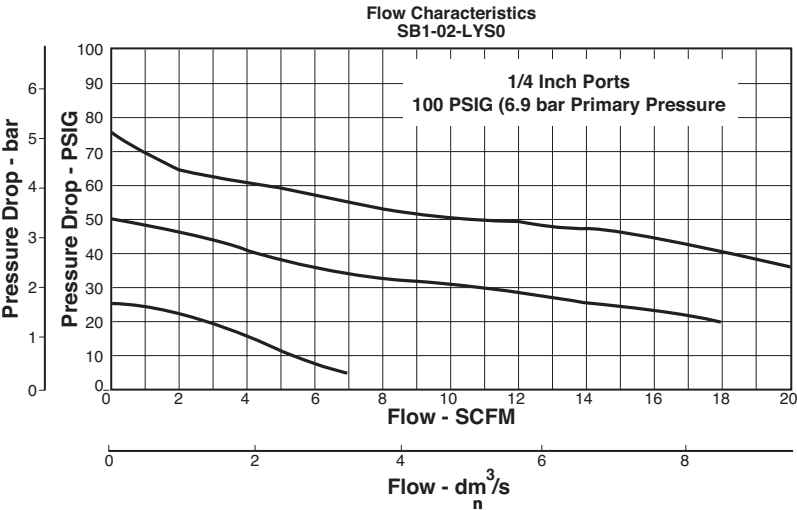
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

SB1 Regulator Kits & Accessories

- Bonnet Kit SB1-02-LYS0 (Knob Included)SRP-96-017
- Bonnet Kit SB1-02-LYSS (Knob Included)CKR354YSS
- Filter Element Kits –
 Particulate (5 Micron) SRP-96-001
 Particulate (20 Micron) SRP-96-002
- Gauge (Stainless) –
 160 PSIG (0 to 1100 kPa), 1-1/2" Face..... K4515N14160SS
- Manual Twist Drain (New) SAP05481
- Manual Twist Drain (Old) SRP-96-008
- Mounting Bracket (Stainless) 161X57-SS
- Panel Mount Nut –
 StainlessSRP-96-019
 Plastic R05X51-P
- Pipe Nipple –
 1/4" 316 Stainless Steel SRP-96-009
- Service Kit –
RelievingSRP-96-015
Non-RelievingSRP-96-016
- Springs –
 0-25 PSIG Range..... SPR-375-2-SS
 0-60 PSIG Range SPR-376-1-SS
 0-125 PSIG Range SPR-377-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.25" dia. (32mm) hole required for panel mounting
(order panel nut separately).



Ordering Information

Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 25 PSIG (0 to 1.7 bar)	0 to 60 PSIG (0 to 4.1 bar)
Relieving	1/4	SB1-02-LYS0	SB1-02-JYS0	SB1-02-KYS0
Non-Relieving	1/4	SB1-02-YYS0	SB1-02-VYS0	SB1-02-XYS0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Filter / Regulator – Standard SB2

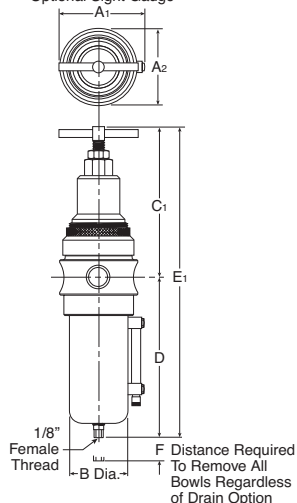
 = "Most Popular"
**SB2-04-LLS0****SB2-04-LLSS**

Features

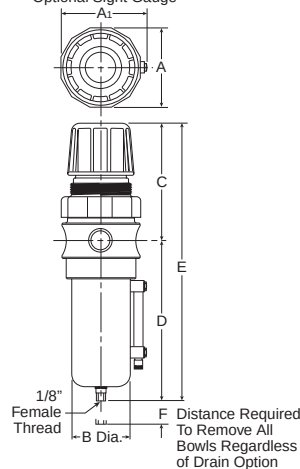
- Stainless Steel Construction Handles Most Corrosive Environments
- Large Diaphragm to Valve Area Ratio for Precise Regulation and High Flow Capacity
- 1/8" Female Threaded Drain
- Meets NACE Specifications MR-01-75/ISO-15156
- Low Temperature Version Available
- High Flow: 1/2" – 72 SCFM[§]

[§] SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

Optional Sight Gauge



Optional Sight Gauge



Dimensions

Models	Inches (mm)	A	A1	A2	B	C	C1	D	E	E1	F
Miniature Unit SB2-04-XXXX		2.34 (60)	2.50 (64)	3.36 (85)	1.75 (44)	3.59 (91)	4.70 (119)	5.00 (127)	8.59 (218)	9.70 (246)	2.12 (54)

Specifications

Flow Capacity*	Port Size 1/2	5 Micron 72 SCFM
Bowl Capacity	4.0 Ounces	
Filter Rating	5 Micron	
Gauge Port	1/4 Inch	
Port Threads	1/2 Inch	

Pressure & Temperature Ratings –

SB2-04-LLS0 (Metal Bowl with or without Sight Gauge)–
300 PSIG Max. (20.7 bar)
0°F to 150°F (-18°C to 66°C)

SB2-04-LLSS (Metal Bowl without Sight Gauge)–
300 PSIG Max. (20.7 bar)
0°F to 180°F (-18°C to 82°C)

SB2-04-LLSS (Metal Bowl with Sight Gauge)–
300 PSIG Max. (20.7 bar)
0°F to 150°F (-18°C to 66°C)

Automatic Float Drain –
15 to 175 PSIG (1 to 12 bar)
32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Useful Retention **	1.7 Ounce
Weight	2.42 lb. (1.09 kg)

* Inlet pressure 100 PSIG (6.9 bar) and 75 PSIG (5.2 bar) no flow secondary setting and 25% pressure drop.

** Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

Adjustment Mechanism / Springs	316 Stainless Steel
Body	316 Stainless Steel
Bonnet / Knob (SB2-04-LLS0)	Acetal
Bonnet / Tee Handle (SB2-04-LLSS)	316 Stainless Steel
Bottom Plug	316 Stainless Steel
Poppet	316 Stainless Steel
Seals	Fluorocarbon
Sight Gauge	Isoplast



WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

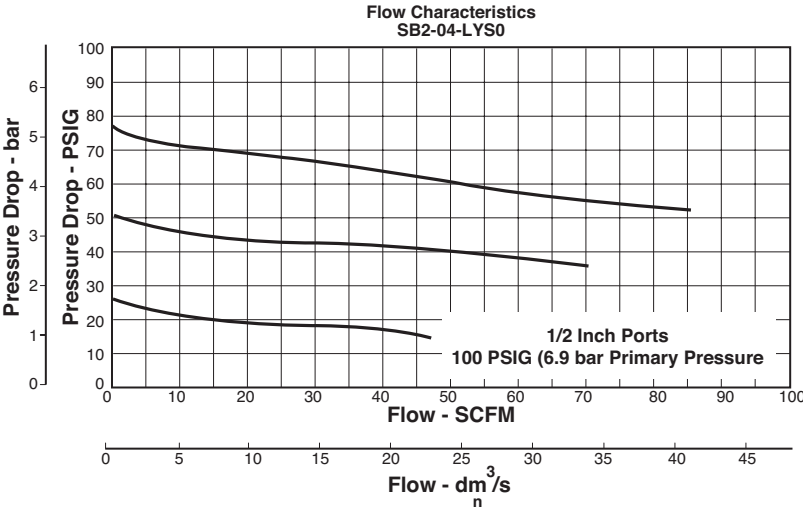
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

= “Most Popular”

SB2 Regulator Kits & Accessories

- Bonnet Kit SB2-04-LLS0 (Knob)SRP-96-018
- Bonnet Kit SB2-04-LLSS (T-Handle) CKR11YSS
- Drain Kit –
- Automatic Float Drain (New)..... SRP-96-27
- Automatic Float Drain (Old) SRP-96-007
- Manual Twist Drain (New)..... SAP05481
- Manual Twist Drain (Old)..... SRP-96-008
- Filter Element Kits –
- Particulate (5 Micron) SRP-96-003
- Particulate (40 Micron) SRP-96-004
- Gauge (Stainless) –
- 160 PSIG (0 to 1100 kPa), 2" Face.....K4520N14160SS
- Liquid Level Sight Gauge Kit..... SRP-96-026
- Mounting Bracket (Stainless) R10Y57-SS
- Panel Mount Nut –
- Stainless SRP-96-020
- PlasticR10X51-P
- Pipe Nipple –
- 1/2" 316 Stainless SteelSRP-96-010
- Service Kit –
- RelievingSRP-96-011
- Non-RelievingSRP-96-012
- Springs –
- 0-60 PSIG Range SPR-388-1-SS
- 0-125 PSIG Range SPR-389-1-SS
- 0-250 PSIG Range..... SPR-390-1-SS

Note: Order pressure gauge and panel mount nut separately.
Note: 1.75" dia. (44.5 mm) hole required for panel mounting
(order panel nut separately).



Ordering Information

Model Type	Port Size	0 to 125 PSIG (0 to 8.6 bar)	0 to 60 PSIG (0 to 4.1 bar)	0 to 250 PSIG (0 to 17.2 bar)
Relieving	1/2	SB2-04-LLS0	SB2-04-KYS0	SB2-04-MYS0
Non-Relieving	1/2	SB2-04-YS0	SB2-04-XYS0	SB2-04-ZYS0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

E

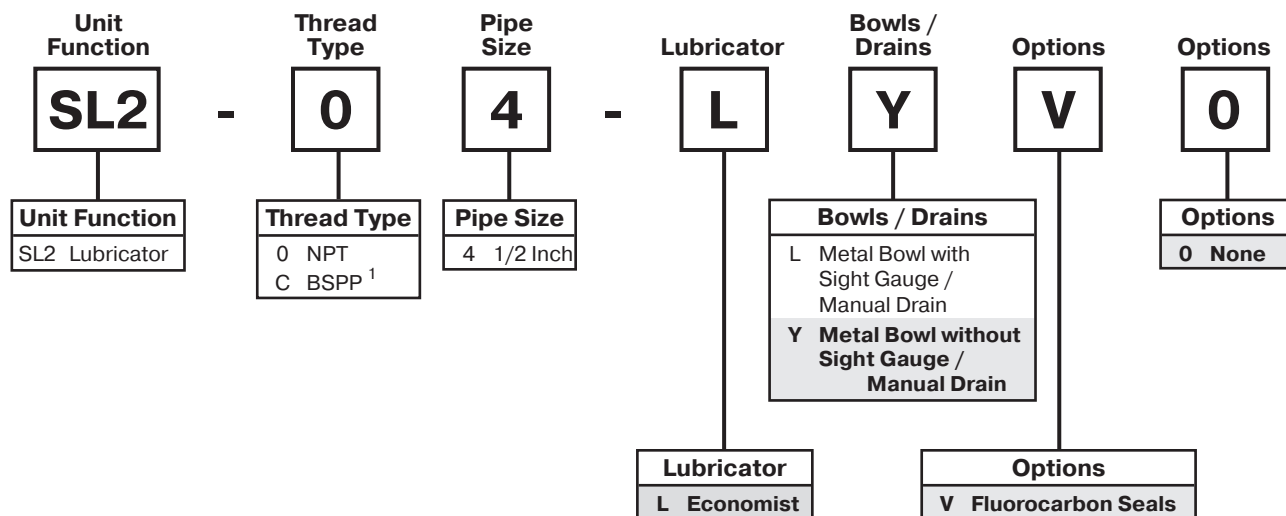
Stainless Steel Products

Notes



Stainless Steel Products

Lubricator Numbering System

 = "Most Popular"
¹ ISO, R228 (G Series)

Note: When selecting from the options columns, please enter letters in alphabetical order for positions 7, 8, and 9. For example:

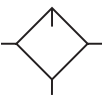
SL2 - 0 2 - L L V 0

Suggested Lubricant

Airline Oil F442001

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Lubricator – Standard SL2

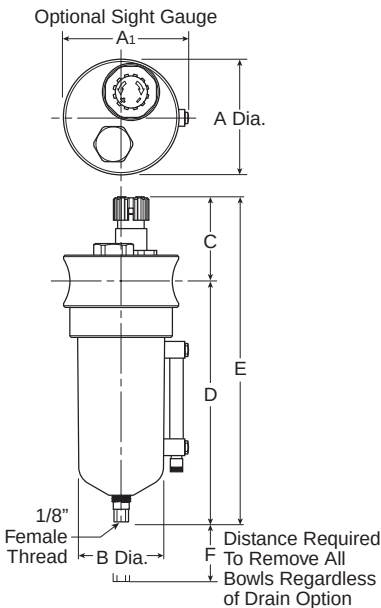


SL2-04-LYV0

Features

- Stainless Steel Construction Handles Most Corrosive Environments
- 1/8" Female Threaded Drain
- Fillable Under Pressure
- Meets NACE Specifications MR-01-75/ISO 15156
- High Flow: 1/2" - 100 SCFM§

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet, and 5 PSIG pressure drop.



Dimensions

Models	Inches (mm)	A	A1	B	C	D	E	F
Miniature Unit SL2-04-XXXX		2.36 (60)	2.52 (64)	1.73 (44)	2.17 (55)	5.46 (139)	7.62 (194)	3.50 (89)

= “Most Popular”

Specifications

Flow Capacity*	Port Size 1/2	100 SCFM
Bowl Capacity		4.0 Ounces
Port Threads		1/2 Inch
Pressure & Temperature Ratings –		
Metal Bowl –		0 to 300 PSIG (0 to 20.7 bar) 0°F to 150°F (-18°C to 66°C)
Metal Bowl with Sight Gauge –		0 to 250 PSIG (0 to 17.2 bar) 0°F to 150°F (-18°C to 66°C)
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).		
Useful Retention **		4 Ounces
Weight		1.9 lb. (0.85 kg)

* Inlet pressure 90 PSIG (6.2 bar) and 5 PSID (0.3 bar) pressure drop.
** Useful Retention refers to volume below the quiet zone baffle.

Materials of Construction

Body	316 Stainless Steel
Bowl	316 Stainless Steel
Dip Tube	316 Stainless Steel
Drain	316 Stainless Steel
Fill Plug	316 Stainless Steel
Seals	Fluorocarbon
Sight Dome	Nylon
Sight Gauge	Isoplast

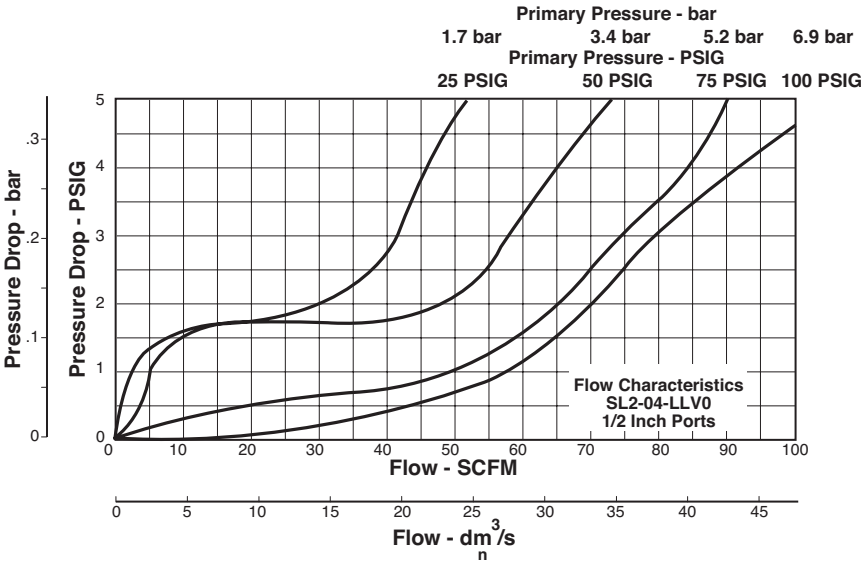
Suggested Lubricant

Airline Oil F442001
Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

= “Most Popular”

SL2 Filter Kits & Accessories

- Drain Kit –
- Manual Twist Drain (New)..... SAP05481
 - Manual Twist Drain (Old) SRP-96-008
- Liquid Level Sight and Gauge Kit SRP-96-026
- Pipe Nipple – 1/2” 316 Stainless SteelSRP-96-010
- Sight Dome / Metering Screw Kit –
- Old SRP-96-025
 - New Style Nylon.....
- LRP-96-720.....



Ordering Information

Model Type	Port Size	Model Number
Manual Drain	1/2	SL2-04-LYV0

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Notes



Stainless Steel Products



Sources of Contamination	F2-F4	Heatless Desiccant Air Dryers – TW	F21-F24
Purification Technologies	F5	Automatic Electrical Drain Valve – WDV3-G	F25
Quality Standards	F6	Zero Air Loss Condensate Drain – ED	F26
Purity Levels	F7		
Refrigeration Air Dryers –			
SPE / DRD	F8-F11		
Mini Disposable Inline Desiccant Dryer – DD10	F12		
Manual Desiccant Dryers	F13		
X06.....	F14-F15		
X03 / X04	F16-F17		
X25.....	F18		
X08.....	F19		

Compressed air and its purification from generation to application

Compressed air is an essential power source that is widely used throughout industry. This safe, powerful and reliable utility can be the most important part of your production process. However, your compressed air will contain water, dirt, wear particles and even degraded lubricating oil which all mix together to form an unwanted condensate. This condensate often acidic, rapidly wears tools and pneumatic machinery, blocks valves and orifices causing high maintenance and costly air leaks. It also corrodes piping systems and can bring your production process to an extremely expensive standstill!

The quality of air required throughout a typical compressed air system can vary.

It is highly recommended that the compressed air is treated prior to entry into the distribution system as well as at each usage point or application.

This approach to system design provides the most cost effective solution to system purification as it not only removes the contamination already in the distribution system, it ensures that only the most critical areas receive air treated to the highest level.

In many instances the compressed air system will be supplying air to more than one application and although the purification equipment specified in the compressor room would remain unchanged, the point of use protection will vary depending upon the air quality requirements of each application.

In many cases this action alone is not enough, as modern production systems and processes demand an even higher level of air quality. Where required, "point of use" filtration, refrigeration or desiccant air dryers can provide the correct air quality, without the need for drying the complete compressed air installation, which can be both costly and totally unnecessary.

Sources of contamination found in a compressed air system

Contaminants in a compressed air system can generally be attributed to the following:

The quality of air being drawn into the compressor
Air compressors draw in a large volume of air from the surrounding atmosphere containing large numbers of airborne contaminants.

The type and operation of the air compressor
The air compressor itself can also add contamination, from wear particles to coolants and lubricants.

Compressed air storage devices and distribution systems

The air receiver and system piping are designed to store and distribute the compressed air. As a consequence, they will also store the large amounts of contaminants drawn into the system. Additionally, piping and air receivers will also cool the moist compressed air forming condensate which causes damage and corrosion.

Types of contamination found in a compressed air system

Atmospheric Dirt

Atmospheric air in an industrial environment typically contains 183 million per yd³ (140 million per m³) of dirt particles. 80% of these particles are less than 2 microns in size and are too small to be captured by the compressor intake filter, therefore passing directly into the compressed air system.

Water Vapor, Condensed Water And Water Aerosols

Atmospheric air contains water vapor (water in a gaseous form). The ability of compressed air to hold water vapor is dependent upon its temperature. The higher the temperature, the more water vapor that can be held by the air. During compression, the air temperature is increased significantly, which allows it to easily retain the incoming moisture. After the compression stage, air is normally cooled to a usable temperature. This reduces the air's ability to retain water vapor, resulting in a proportion of the water vapor being condensed into liquid water which is removed by a condensate drain fitted to the compressor after-cooler. The air leaving the after-cooler is now 100% saturated with water vapor and any further cooling of the air will result in more water vapor condensing into liquid water. Condensation occurs at various stages throughout the system as the air is cooled further by the air receiver, piping and the expansion of valves, cylinders, tools and machinery. The condensed water and water aerosols cause corrosion to the storage and distribution system, damage production equipment and the end product. It also reduces production efficiency and increases maintenance costs. Water in any form must be removed to enable the system to run correctly and efficiently.

Rust and Pipescale

Rust and pipescale can be found in air receivers and the piping of "wet systems" (systems without adequate purification equipment) or systems which were operated "wet" prior to purification being installed. Over time, this contamination breaks away to cause damage or blockage in production which can also contaminate final product and processes.

Micro-Organisms

Bacteria and viruses will also be drawn into the compressed air system through the compressor intake and warm, moist air provides an ideal environment for the growth of micro-organisms. If only a few micro-organisms were to enter a clean environment, a sterile process or production system, enormous damage could be caused that not only diminishes product quality, but may even render a product entirely unfit for use and subject to recall.

Liquid Oil And Oil Aerosols

Most air compressors use oil in the compression stage for sealing, lubrication and cooling. During operation, lubricating oil is carried over into the compressed air system as liquid oil and aerosols. This oil mixes with water vapor in the air and is often very acidic, causing damage to the compressed air storage and distribution system, production equipment and final product.

Oil Vapor

In addition to dirt and water vapor, atmospheric air also contains oil in the form of unburned hydrocarbons. The unburned hydrocarbons drawn into the compressor intake as well as vaporized oil from the compression stage of a lubricated compressor will carry over into a compressed air system where it can cool and condense, causing the same contamination issues as liquid oil.

Up to 99% of the total liquid contamination found in a compressed air system is water.

Oil is perceived to cause the most problems as it is seen emanating from open drain points and exhausting valves, however, in the majority of

instances, it is actually oily condensate (oil mixed with water) that is being observed.

How much water can be found in a typical compressed air system?

The amount of water in a compressed air system is staggering. A small 100 SCFM (2.8m³/min) compressor and refrigeration dryer combination, operating for 4,000 hours in typical climatic conditions can produce approximately 2,200 gallons (8,328 liters) of liquid condensate per year.

If the compressor is oil lubricated with a typical 2ppm (2 mg/m³) oil carryover, then although the resulting condensate would visually resemble oil, oil would in fact account for less than 0.1% of the

overall volume and it is this resemblance to oil to which a false association is made.

The example above assumes uses a small compressor to highlight the large volume of condensate produced. If a compressed air system was operated in warmer, more humid climates, or with larger compressors installed, running for longer periods, the volume of condensate would increase significantly.

Contamination and types of compressors

It is often believed that the level of compressed air purification equipment required in a system is dependent upon the type of compressor used. Contamination in a compressed air system originates from many sources and is not related solely to the compressor or it's lubricants. No

matter what compressor type is selected, adequate filtration and separation products will be required to remove the large volume of dirty contaminated water as well as the dirt, rust, pipescale and microbiological contamination in the system.

Preventative maintenance provides you with the following benefits:

- Lowest operating costs
- Superior compressed air quality
- Continued protection of downstream equipment and processes
- Peace of mind

Compressed air and it's purification

Having identified the different types of contamination that can be found within a

compressed air system, we can now examine the purification technologies available for it's removal.

Particle and coalescing filters

Coalescing filters are probably the most important items of purification equipment in any compressed air system. They are designed to remove oil and water aerosols using mechanical filtration techniques and have the additional benefit of removing solid particulate to very low levels (as small as 0.01 micron in size). Installed in pairs, most users believe one to be an oil removal filter and the

other to be a particulate filter, when in fact, the pair of filters both perform the same function. The first filter, a general purpose filter is used to protect the high efficiency filter against bulk contamination. This "dual filter" installation ensures a continuous supply of high quality compressed air with low operational costs and minimal maintenance time.

Bulk liquid removal high efficiency water separators

Used to protect filters in systems where excessive cooling takes place in distribution piping. Water Separators will remove in excess of 98% of bulk

liquid contamination through centrifugal separation techniques.

Refrigeration dryers

Refrigeration dryers work by cooling the air, so are limited to positive pressure dewpoint ratings to prevent freezing of the condensed liquid. Ideal for general purpose applications, they typically provide pressure dewpoints of 38°F (3°C), 45°F (7°C) or 50°F (10°C) pdp. Air is reheated before it re-enters

the system to prevent piping from "sweating" in humid conditions. Refrigeration dryers are not suitable for installations where piping is installed in ambient temperatures below the dryer dewpoint i.e. systems with external piping.

Adsorption (desiccant) dryers

Water vapor is water in a gaseous form and is removed from compressed air using a dryer, with dryer performance being measured as pressure dewpoint. Adsorption or desiccant dryers remove moisture by passing air over a regenerative adsorbent material which strips the moisture from the air. This type of dryer is extremely efficient and typical pressure dewpoint ratings are -40°F (-40°C) or -100°F (-70°C) pdp. This means that for water

vapor to condense into a liquid, the air temperature would have to drop below -40°F (-40°C) to -100°F (-70°C) respectively (the actual air temperature after an adsorption dryer is not the same as it's dewpoint).

Beneficially, a pressure dewpoint of -15°F (-26°C) or better will not only prevent corrosion, but will also inhibit the growth of microorganisms within the compressed air system.

Important note regarding compressed air dryers

As adsorption and refrigeration dryers are designed to remove only water vapor and not water in a liquid form, they require the use of particulate

and coalescing filters, and possibly a bulk liquid separator to work efficiently.

Compressed air quality standards – ISO 8573

ISO 8573 is the group of International standards relating to the quality of compressed air and consists of nine separate parts. Part 1 specifies the quality requirements of the compressed air and parts 2 - 9 specify the methods of testing for a range of contaminants.

ISO 8573.1 : 2010 is the primary document used from the ISO 8573 series and it is this document which allows the user to specify the air quality or purity required at key points in a compressed air system.

ISO8573-1 lists the main contaminants as Solid Particulate, Water and oil. The purity levels for each contaminant are shown in separate tables, however for ease of use, this document combines all three contaminants into one easy to use table.

ISO8573-1:2010 Class	Solid Particulate				Water		Oil
	Maximum number of particles per m ³			Concentration	Vapor	Liquid	Total oil (aerosol, liquid and vapor)
	0.1 - 0.5 micron	0.5 - 1 micron	1 - 5 micron	mg/m ³	Pressure Dewpoint	g/m ³	ppm (mg/m ³)
0	As specified by the equipment user or supplier and more stringent than Class 1						
1	≤ 20,000	≤ 400	≤ 10	–	≤ -94°F (-70°C)	–	0.008 (0.01)
2	≤ 400,000	≤ 6,000	≤ 100	–	≤ -40°F (-40°C)	–	0.08 (0.1)
3	–	≤ 90,000	≤ 1,000	–	≤ -4°F (-20°C)	–	0.83 (1)
4	–	–	≤ 10,000	–	≤ 37°F (3°C)	–	4.2 (5)
5	–	–	≤ 100,000	–	≤ 45°F (7°C)	–	–
6	–	–	–	≤ 5	≤ 50°F (10°C)	–	–
7	–	–	–	5 - 10	–	≤ 0.5	–
8	–	–	–	–	–	0.5 - 5	–
9	–	–	–	–	–	5 - 10	–
X	–	–	–	≤ 10	–	≤ 10	≤ 10

Specifying Air Purity In Accordance With ISO 8573-1:2010

When specifying the purity of air required, the standard must always be referenced, followed by the purity class selected for each contaminant (a different purity class can be selected for each contaminant if required). An example of how to write an air quality specification is shown below:

Example:

ISO 8573-1:2010 Class 1.2.1

ISO8573-1:2010 refers to the standard document and its revision, the three digits refer to the purity classifications selected for solid particulate, water and total oil. Selecting an air purity class of 1.2.1 would specify the following air quality when operating at the standard's reference conditions:

Class 1, Particulate

In each cubic meter of compressed air, the particulate count should not exceed 20,000 particles in the 0.1 - 0.5 micron size range, 400 particles in the 0.5 - 1 micron size range and 10 particles in the 1 - 5 micron size range.

Class 2, Water

A pressure dewpoint (PDP) of -40°F (-40°C) or better is required and no liquid water is allowed.

Class 1, Oil

In each cubic meter of compressed air, not more than 0.01mg of oil is allowed. This is a total level for liquid oil, oil aerosol and oil vapor.

Cost Effective System Design

To achieve the stringent air quality levels required for today's modern production facilities, a careful approach to system design, commissioning and operation must be employed.

Treatment at one point alone is not enough and it is highly recommended that the compressed air is treated in the compressor room to a level that will provide general purpose air to the site and also protect the distribution piping.

Point of use purification should also be employed, not only to remove any contamination remaining in the distribution system, but also with specific attention on the quality of air required by each application. This approach to system design ensures that air is not "over treated" and provides the most cost effective solution to high quality compressed air.

General purpose oil free air

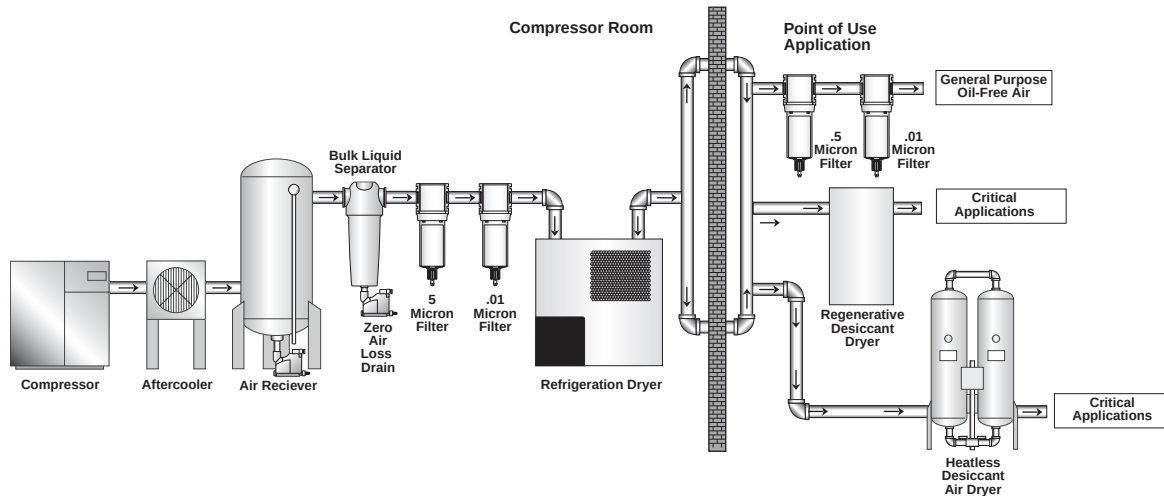
Bulk contamination is removed to an adequate level prior to the air entering the distribution system.

Point of use particulate filter(s) are used for removal of contamination within the distribution system.

Point of use adsorption dryer installed where lower dewpoints are required.

Typical Applications

- Plant Automation
- Air Logistics
- Pneumatic Tools
- General Instrumentation
- Air Conveying
- Air Motors
- Temperature Control Systems
- Blow Guns
- Gauging Equipment
- Raw Material Mixing
- Sand / Bead Blasting



High quality oil free air

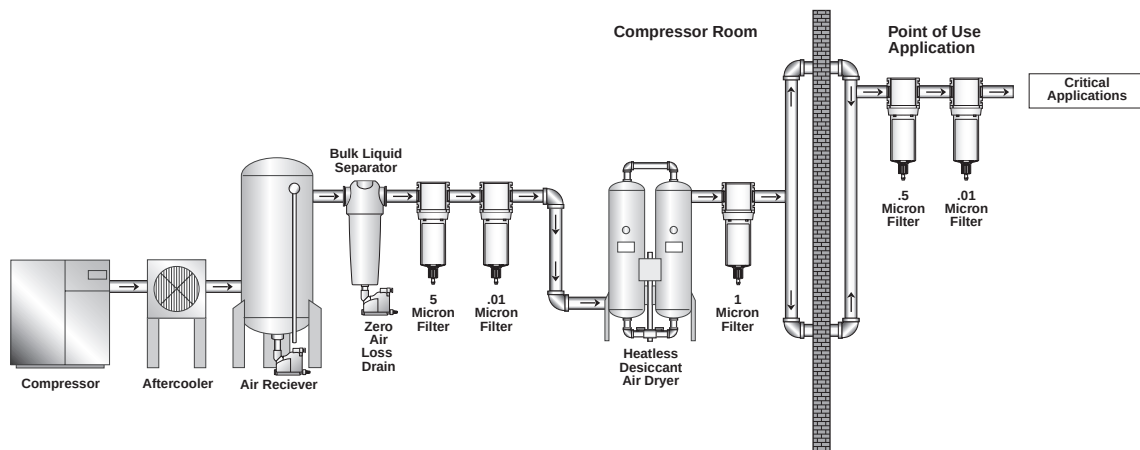
Bulk contamination is removed to an adequate level prior to the air entering the distribution system.

Point of use particulate filter(s) are used for removal of contamination within the distribution system.

Adsorption dryers are used for critical applications where lower dewpoints are required.

Typical Applications

- Blow Molding of Plastics e.g.. P.E.T. Bottles
- Film Processing
- Critical Instrumentation
- Advanced Pneumatics
- Air Blast Circuit Breakers
- Decompression Chambers
- Cosmetic Production
- Medical Air
- Dental Air
- Lasers and Optics
- Robotics
- Spray Painting
- Air Bearings
- Pipeline Purging
- Measuring Equipment



SPE010 - SPE0250



- “Plug & Play” design for easy installation and operation
- Small space saving design
- High reliability, easy to use and maintain
- All models equipped standard with a digital controller
 - controls integral timed drain
 - various warning and alarms
 - on/off indicator
- Drain has access from both sides
- Non cycling dryer

DRD325 - DRD2400



=
“Most
Popular”

- Optimum dewpoint levels for highest system performance
- Advanced patented design solutions
- High reliability, easy to use and maintain
- Unique 4-in-1 SmartPack heat exchanger
- Integral drain
- Extremely low pressure drop design
- SmartControl energy saving function (cycling dryer)
- Excellent dewpoint performances
- Advanced compliant scroll compressor

Capacity SCFM @ 100 psig (m³/min @ 6.9 bar)	Primary voltage	Part number	Pipe size (NPT) ‡	Recommended filtration		
				Bulk separator	Pre-filter (5µ particulate)*†	Post-filter (.01µ coalescing w DPI)
10 (17)	115V/1 ph / 60 Hz	SPE010-A11516016TIU	1/2"	WSA-04-FM0	M18-04-BH00B *	M18-04-CH00B
15 (26)	115V/1 ph / 60 Hz	SPE015-A11516016TIU	1/2"	WSA-04-FM0	M18-04-BH00B *	M18-04-CH00B
25 (43)	115V/1 ph / 60 Hz	SPE025-A11516016TIU	1/2"	WSA-04-FM0	M18-04-BH00B *	M18-04-CH00B
35 (60)	115V/1 ph / 60 Hz	SPE035-A11516016TIU	3/4"	WSA-06-FM0	M28-06-BH00B *	M28-06-CH00B
50 (85)	115V/1 ph / 60 Hz	SPE050-A11516016TIU	3/4"	WSA-06-FM0	M28-06-BH00B *	M28-06-CH00B
75 (127)	115V/1 ph / 60 Hz	SPE075-A11516016TIU	1"	WSA-08-FM0	F90-08-SL00 †	M90-08-CL00
100 (170)	115V/1 ph / 60 Hz	SPE100-A11516016TIU	1"	WSA-08-FM0	F90-08-SL00 †	M90-08-CL00
125 (212)	115V/1 ph / 60 Hz	SPE125-A11516016TIU	1"	WS0-08-000B	F90-08-SL00 †	M90-08-CL00
150 (255)	115V/1 ph / 60 Hz	SPE150-A11516016TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
175 (297)	115V/1 ph / 60 Hz	SPE175-A11516016TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
175 (297)	230 V/1 ph / 60 Hz	SPE0175-A23016016TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
200 (340)	230 V/1 ph / 60 Hz	SPE0200-A23016014TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
250 (425)	230 V/1 ph / 60 Hz	SPE0250-A23016014TIU	1-1/2"	WS0-0B-000B	F35-0B-F00 †	M35-0B-F00
325 (552)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD325-A23036014EI DRD325-A46036014EI	2" NPT-F	WS0-0C-000B	F35-0C-F00	M35-0C-F00
400 (680)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD400-A23036014EI DRD400-A46036014EI	2" NPT-F	WS0-0C-000B	F35-0C-F00	M35-0C-F00
500 (849)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD500-A23036014EI DRD500-A46036014EI	2" NPT-F	WS0-0C-000B	F35-0C-F00	M35-0C-F00
700 (1189)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD700-A23036014EI DRD700-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
800 (1359)	230V/3ph/60Hz & 460V/3ph/60Hz	DRD800-A23036014EI DRD800-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
1000 (1700)	460V/3ph/60Hz	DRD1000-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
1200 (2039)	460V/3ph/60Hz	DRD1200-A46036014EI	3" NPT-M	WS0-0E-000B	F43-0E-F00	M43-0E-F00
1600 (2718)	460V/3ph/60Hz	DRD1600-A46036014EI	4" Flg.	WWSA1000F	M55-0F-F00*	M55-0F-FS0
2000 (3400)	460V/3ph/60Hz	DRD2000-A46036014EI	6" Flg.	WWSA1800F	M55-0H-F00*	M55-0H-FS0
2400 (4078)	460V/3ph/60Hz	DRD2400-A46036014EI	6" Flg.	WWSA1800F	M55-0H-F00*	M55-0H-FS0

‡ SPE010-025 are 1/2" NPT compatible. SPE035-0250 are manufactured with BSPP-F ports, but come standard with BSP to NPT adapter.

* 0.5µ coalescing

† 5 micron

The importance of compressed air as a provider of energy for modern industrial processes is widely known. What is often overlooked however is the need to provide quality treatment for this air.

In fact, the air entering the system contains condensate which, when cooled, will turn into liquid water, causing extensive damage not only to the compressed air network, but also to the finished product.

DRD refrigeration dryers actively remove this condensate to achieve extremely dry compressed air.

Our SmartPack heat exchanger offers minimal pressure drops and class leading performance, and significantly increases the efficiency of the whole compressed air treatment process. The innovative SmartControl function automatically and continuously adjusts dryer operation to the effective working conditions, minimizing operating costs and maximizing performances.

Compressed air purification equipment must deliver uncompromising performance and reliability while providing the right balance of air quality with the lowest cost of operation. Many manufacturers offer products for the filtration and purification of contaminated compressed air, which are often selected only upon their initial purchase cost, with little or no regard for the air quality they provide, the cost of operation throughout their life or their environmental impact. When purchasing purification equipment, delivered air quality, the overall cost of ownership and the equipment's environmental impact must always be considered.



Smart Technology: The Benefits

SmartPack Heat Exchanger Provides Less Than 2 PSI Pressure Drop

The SmartPack (patent pending) heat exchanger features an extremely robust, all-in-one aluminum design, with no interconnecting tubing.

The geometry of the heat exchanger has been designed in order to optimize its performances. In particular, large volumes allow low air velocity through the heat exchanger section, resulting in high exchange efficiency and low pressure drops. Pressure drops are further improved thanks to the absence of interconnecting pipes through the different sections of the heat exchanger and to a straight forward path of the compressed air flow with smooth and minimum changes of flow directions.

Smart BMS Interface

Simple BMS interface includes:

- RS485 serial card provides direct communication to Modbus. Requires no gateway or A.N.I.
- Provides visualization of dewpoint, alarm conditions and service indication.
- Provides remote control of the dryer including on/off and alarm reset (depending on actual alarm)

SmartDrain - Dual Mode Zero Air Loss Drain

The drainage chamber is integrated into the heat exchanger while the valve mechanism is fitted in an easily accessible drain niche. The SmartDrain continuously adjusts itself to the actual working conditions, ensuring zero air loss and a notable reduction in system power consumption.

An innovative control system continuously monitors for fault situations. If a fault does occur, an alarm is signaled and the drain switches to conventional timed solenoid drain operation. The dual mode circuitry ensures maximum reliability.

Smart Control With SmartSave Cycling

The multifunction SmartControl provides a versatile platform for user interface and SmartSave Cycling (if enabled). The innovative SmartSave (patent pending).

Cycling Control continuously monitors the demand placed on the dryer. At conditions of low demand the refrigerant compressor is cycled off to save energy. A sophisticated algorithm continuously adapts the operation of the dryer for optimum energy efficiency while minimizing the dewpoint spikes common to traditional thermal mass dryers.

Compliant Scroll Compressors

These units feature Compliant Scroll compressors, offering energy savings of 20 -30% when compared with piston compressors. The ability to tolerate liquid returns coupled with 50% less moving parts render them nearly indestructible and highly reliable. Low vibration levels increase overall refrigeration circuit.

= "Most Popular"

Operating information

Dryer Models	Dewpoint	Operating pressure		Operating temperature		Ambient maximum	Electrical supply	Thread	Noise level bB(A)	Refrigerant type
		Min	Max	Min	Max					
SPE010 - SPE050	ISO 8573-1 Class 5	29 psig (2 bar)	232 psig (16 bar)	41°F (5°C)	149°F (65°C)	122°F (50°C)	115V 1ph 60 Hz	NPT	<75	R134a
SPE075 - SPE0175										
SPE0200 - SPE0250			203 psig (14 bar)				230 1ph 60 Hz			

Controller Functions

Dryer Models	Power on indication	Visual fault indication	Compressed air temperature	Dryer service indicator	Fault relay power loss
SPE010-0250	X	X	X	X	X

Quality Assurance / IP Rating / Pressure Vessel Approvals

Development/Manufacture ISO 9001 / ISO 14001
Ingress Protection Rating IP22 Indoor Use Only

Product Selection and Correction Factors

Capacities are based upon: Ambient temperature - 100°F (38°C); inlet temperature - 100°F (38°C); and working pressure - 100 psig (7 bar g)

Minimum Drying Capacity = System flow x CFIT x CFATx CFMIP

NOTE: Flowrate, temperatures, and pressure MUST be provided by customer.

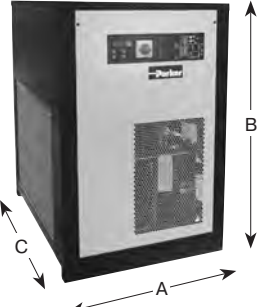
Example: 50 scfm flowrate Inlet temperature - 100°F (38°C) = 1.0
Max ambient temperature - 110°F (43°C) = 1.08
Min inlet pressure - 80°F (27°C) = 1.09
50 (1.0) + 1.08 + 1.09 = 59, therefore, a larger 75 scfm dryer is required

	SPE010 - SPE0250											DRD325 - DRD2400							
CFIT - Correction factor minimum inlet temperature																			
°F	90	95	100	110	120	130	140	149				90	100	110	120	130	140		
°C	32	35	38	43	49	54	60	65				32	38	43	49	54	60		
Factor	0.74	0.82	1.00	1.33	1.76	2.38	2.60	2.67				1.22	1.00	0.82	0.68	0.56	0.46		
CFAT - Correction factor maximum ambient temperature																			
°F	60	70	80	90	95	100	110	120	122				70	80	90	100	110	120	122
°C	16	21	27	32	35	38	43	49	50				21	27	32	38	43	49	50
Factor	0.93	0.93	0.93	0.93	0.96	1.00	1.08	1.16	1.18				1.22	1.15	1.05	1.00	0.94	0.79	0.71
CFMIP - Correction factor minimum inlet pressure																			
psig	45	60	80	100	125	145	150	160	175	200	232	60	80	100	125	150	174	203	
bar	3	4	6	7	9	10	10	11	12	14	16	3	6	7	9	10	12	14	
Factor	1.40	1.17	1.09	1.00	0.88	0.83	0.82	0.81	0.79	0.75	0.71	0.83	0.93	1.00	1.07	1.12	1.15	1.18	

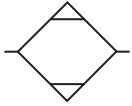
Dimensions	Part number	A width	B height	C depth	Weight (kg)
	SPE010-A11516016TIU	11.8 (300)	20.5 (520)	15.7 (400)	53 (24)
	SPE015-A11516016TIU	11.8 (300)	20.5 (520)	15.7 (400)	53 (24)
	SPE025-A11516016TIU	11.8 (300)	20.5 (520)	15.7 (400)	55 (25)
	SPE035-A11516016TIU	13.0 (330)	22.8 (580)	21.7 (550)	77 (35)
	SPE050-A11516016TIU	13.0 (330)	22.8 (580)	21.7 (550)	79 (36)
	SPE075-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	101 (46)
	SPE0100-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	101 (46)
	SPE0125-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	104 (47)
	SPE0150-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	117 (53)
	SPE0175-A11516016TIU	15.7 (400)	25.6 (650)	24.8 (630)	121 (55)
	SPE0175-A23016016TIU	15.7 (400)	25.6 (650)	24.8 (630)	121 (55)
	SPE0200-A23016014TIU	17.7 (450)	33.1 (840)	30.7 (780)	176 (80)
	SPE0250-A23016014TIU	17.7 (450)	33.1 (840)	30.7 (780)	176 (80)

Inches (mm)

= "Most Popular"

Dimensions	Part number	A width	B height	C depth	Weight (kg)
DRD325-DRD2400  Inches (mm)	DRD325-A23036014EI	28.0 (711)	42.0 (1067)	41.0 (1041)	320 (145)
	DRD400-A23036014EI	28.0 (711)	42.0 (1067)	41.0 (1041)	320 (145)
	DRD500-A23036014EI	28.0 (711)	42.0 (1067)	41.0 (1041)	342 (155)
	DRD700-A23036014EI	32.0 (813)	52.0 (1321)	46.0 (1168)	529 (240)
	DRD800-A23036014EI	32.0 (813)	52.0 (1321)	46.0 (1168)	529 (240)
	DRD1000-A46036014EI	32.0 (813)	52.0 (1321)	46.0 (1168)	551 (250)
	DRD1200-A46036014EI	40.0 (1016)	67.0 (1702)	43.0 (1092)	816 (370)
	DRD1600-4A6036014EI	40.0 (1016)	68.0 (1727)	71.0 (1803)	1279 (580)
	DRD2000-A46036014EI	40.0 (1016)	68.0 (1727)	71.0 (1803)	1477 (670)
	DRD2400-A46036014EI	40.0 (1016)	68.0 (1727)	71.0 (1803)	1521 (690)

Mini Disposable Inline Desiccant Dryer DD10



Used at the point-of-use, this disposable, mini inline desiccant dryer removes all traces of water vapor, oil vapor and dirt. It is often used directly upstream of blow guns or spray guns as final protection for critical parts blow off and paint spraying. Install in either direction; it functions in both directions.

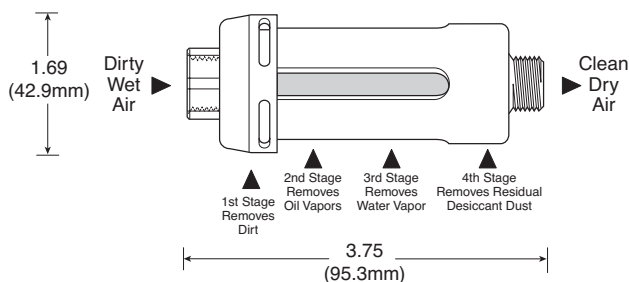
A 40 micron, porous bronze element removes fine dirt particles, an oil removing media removes oil vapor, and desiccant beads adsorb water vapor. The see-through housing shows desiccant color change from the original orange to a green color in the desiccant beads, which indicates that the dryer needs to be replaced.

Features

- Polycarbonate Material Allows Clear Desiccant Visibility
- Disposable
- Used for Parts Blow Off
- Protection for Paint Guns Below the Filter / Dryer
- Non-toxic Desiccant Standard

Non-metallic material is highly resistant to chemicals.

See through housing shows color change when dryer needs replacement.



Specifications

Maximum Pressure Rating	125 PSIG (0 to 8.6 bar)	
Maximum Temperature Rating	130°F (54°C)	
Maximum Flow Capacity	15 SCFM	
Port Size	NPT	1/4
Weight	lb. (g)	2.8 oz. (79.4)

Materials of Construction

Housing	Polycarbonate
---------	---------------

Installation

The DD10 is equipped with a 1/4" NPT (F) and (M) ports and can be installed in either direction. When installing the filter / dryer hand tighten to a leak proof seal. Do not use any mechanical means to hold the filter / dryer and do not over torque the threads.

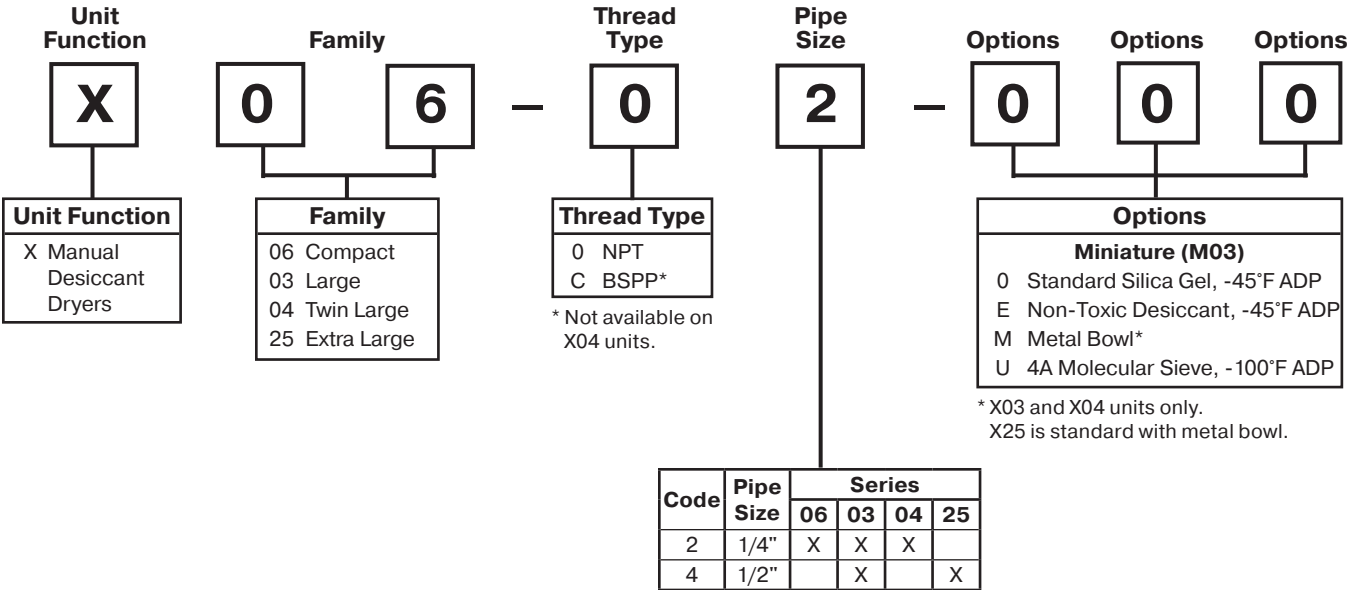
Operation

1. The unique feature of the filter / dryer design allows you to visually see when it is time to install a new DD10 by observing the color change from the original dark color to a complete light transparent color in the desiccant beads.
2. Do not attempt to clean the filter / dryer as the use of solvents, ketones, etc., will adversely affect the plastic housing.
3. Keep the hose free of snags. Extra tension on the filter / dryer assembly could break the unit at the connecting ports. To clear stuck hoses, grasp hose below the filter / dryer.

Ordering Information

Model Type	Port Size	Model Number
DD10	1/4	DD10-02

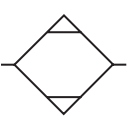
Manual Desiccant Dryer Numbering System



If more than one option is desired, arrange them in alphabetical order in positions 6, 7, and 8.

NOTE: 000 in position 6, 7, and 8 signifies standard product.

Desiccant Dryer
X06



X06-02-000

Features and Benefits

- Atmospheric Dew Points as Low as -100°F
- No Electrical Connection Necessary
- Color change of the Desiccant Provides an Instant Status of the Compressed Air System

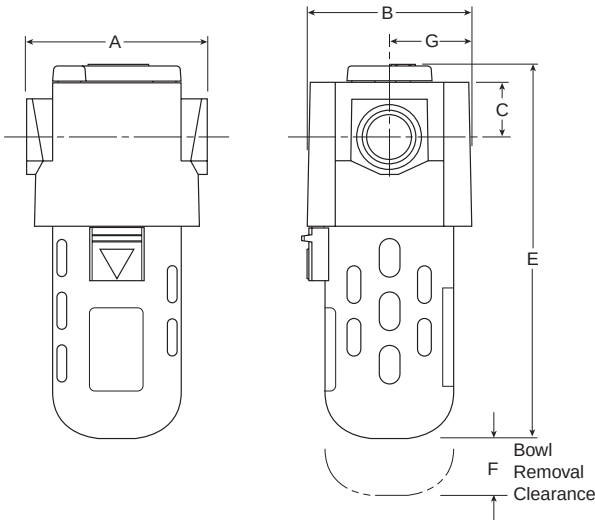
Specifications

Atmospheric Dew Point*–		
Model 000	Silica Gel	-45°F (-43°C)
Model E00	Silica Gel (Non-toxic)	-45°F (-43°C)
Model U00	4A Molecular Sieve	-100°F (-52°C)
Maximum Continuous Air Flow*		5 SCFM (2.3 dm³/s)
Maximum Pressure		150 PSIG (10.3 bar)
Maximum Temperature		125°F (52°C)
Port Size	NPT / BSPP-G	1/4
Total Air Flow*	1/4	600 SCF (16.6 m³)
Total Minutes of Operation @ Continuous Air Flow		120 Minutes
Weight (with Desiccant)	lb. (kg)	1.13 (0.51)
Weight Desiccant Alone	lb. (kg)	0.25 (0.11)

* With dry desiccant at 100 PSIG (7 bar) and 70°F 21°C), saturated inlet (100% RH).

Materials of Construction

Body	Zinc	
Bowls	Plastic	Polycarbonate
Bowl Guard	Steel	
Seals	Fluorocarbon	



Dimensions

Models	Inches (mm)	A	B	C	E	F	G
Standard Unit X06-02-000		2.99 (75.9)	2.72 (69)	.90 (22.8)	6.41 (162.8)	1.50 (38)	1.36 (34.5)

 = “Most Popular”

Replacement Parts

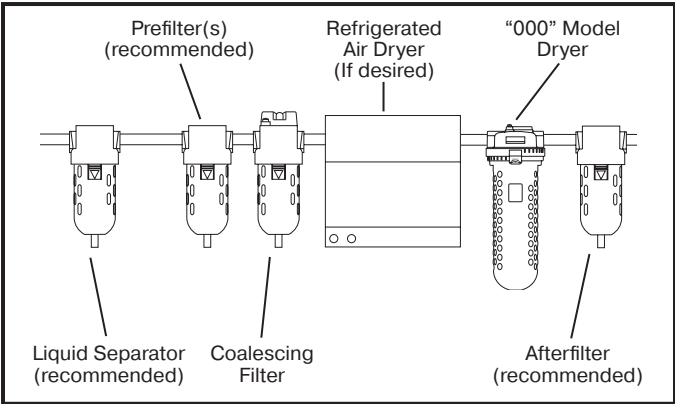
- Bowl Guard GRP-95-013
Bowl O-ring GRP-95-259
Transparent Bowl..... DRP-96-459

Replacement Desiccant Kits

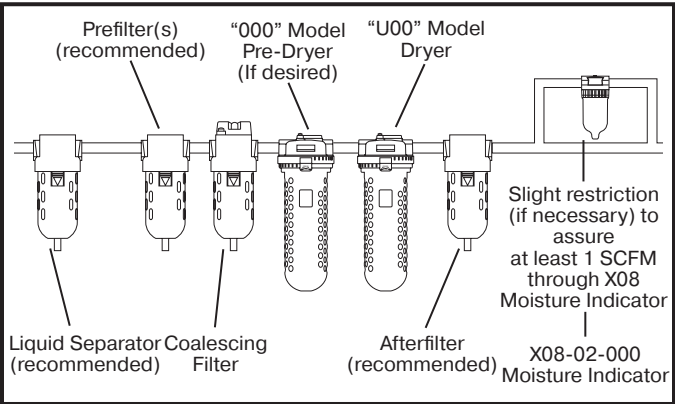
Silica Gel (000) -40°F ADP		
Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges for X06
DRP-95-303	DRP-04-10B/001	1
	DRP-04-10B/005	5
Non Toxic Desiccant (E00) -40°F ADP		
Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges For X06
	DRP-04-447/001	1
	DRP-04-447/005	5
4A Molecular Sieve (U00) -100°F ADP		
Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges For X06
DRP-95-304	DRP-04-514/001	1
	DRP-04-514/005	5

Typical Installation Arrangement

-45°F ADP Models:



-100°F ADP Models:



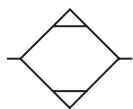
Ordering Information

Model Type	Port Size	Polycarbonate Bowl
X06	1/4	X06-02-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Desiccant Dryer

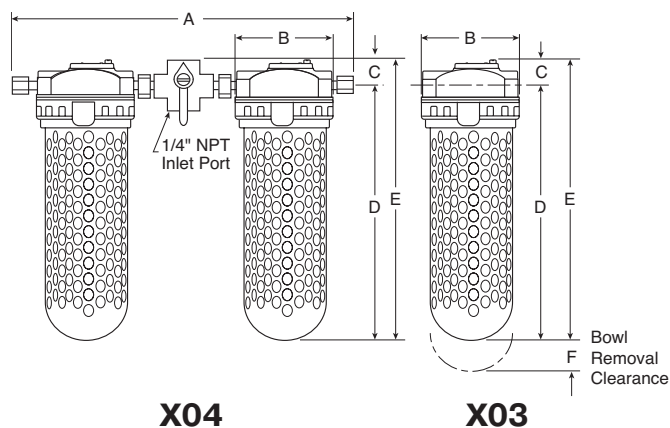
X03 / X04



X03-02-000

Features and Benefits

- Atmospheric Dew Points as Low as -100°F
- No Electrical Connection Necessary
- Twin Units Available for Double Service Life
- Color change of the Desiccant Provides an Instant Status of the Compressed Air System



X04

X03

Dimensions

Models	Inches (mm)	A	B	C	D	E	F
Standard Unit X03-02-000		—	4.79 (121.6)	1.23 (31)	12.60 (320)	13.83 (351)	2.00 (50.8)
Metal Bowl X03-02-M00		—	4.79 (121.6)	1.23 (31)	11.37 (320)	10.00 (351)	2.00 (50.8)
Standard Twin Unit X04-02-000		14.42 (366)	4.79 (121.6)	1.23 (31)	11.71 (297.4)	12.65 (322)	2.00 (50.8)

Specifications

Atmospheric Dew Point*—		
Model 000	Silica Gel	-45°F (-43°C)
Model E00	Silica Gel (Non-toxic)	-45°F (-43°C)
Model U00	4A Molecular Sieve	-100°F (-52°C)
Maximum Continuous Air Flow*		10 SCFM (4.7 dm ³ /s)
Maximum Pressure		150 PSIG (10.3 bar)
Maximum Temperature –		
X03 Transparent Bowl		125°F (52°C)
X03 Metal Bowl		150°F (66°C)
X04 Transparent Bowl		125°F (52°C)
Port Size –		
X03	NPT / BSPP-G	1/4, 1/2
X04	NPT	1/4
Total Air Flow*		4,400 SCF (311 m ³)
Total Minutes of Operation @		
Continuous Air Flow	X03	440 Minutes
	X04	880 Minutes
Weight (with Desiccant) lb. (kg) –		
X03 Transparent Bowl		7.4 (3.4)
X03 Metal Bowl		6.8 (3.1)
X04 Transparent Bowl		15.0 (6.8)
Weight Desiccant Alone lb. (kg) –		
X03 Transparent Bowl		1.8 (0.8)
X03 Metal Bowl		1.3 (0.6)
X04 Transparent Bowl		3.6 (1.6)

* With dry desiccant at 100 PSIG (7 bar) and 70°F 21°C), saturated inlet (100% RH).

Materials of Construction

Body	Zinc	
Bowls	Plastic Metal Bowl	Polycarbonate Aluminum
Bowl Guard	Steel	
Seals	Fluorocarbon	

= “Most Popular”

Replacement Parts

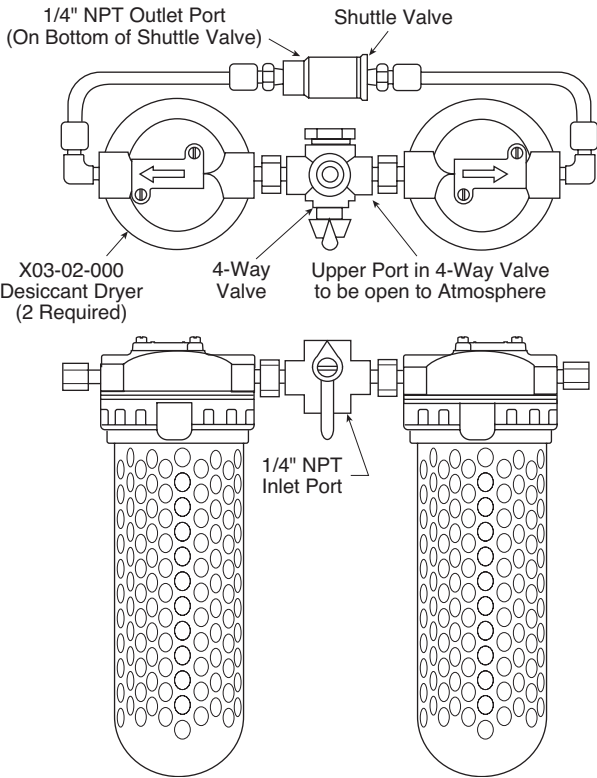
Bowl Guard –	
X03 / X04 Transparent Bowl	GRP-95-810
Bowl O-ring	GRP-95-256
Clamp Ring	GRP-96-404
Moisture Indicator* –	
X03 Metal Bowl	DRP-95-623
Replacement Cap for Moisture Removal	GRP-95-020
Screen Assembly.....	DRP-96-434
Transparent Bowl –	
X03 / X04	GRP-95-089
Tube Assembly with Screen –	
X03 / X04 Transparent Bowl	DRP-96-435
X03 Metal Bowl	DRP-96-451

* The Moisture Indicator contains a weep orifice to provide an air sample to the moisture indicating paper. Air bleed from this indicator is necessary and normal.

Replacement Desiccant Kits

Silica Gel (000) -40°F ADP		
Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges for X03
DRP-85-059	DRP-14-10B/002	1
	DRP-14-10B/008	4
Non Toxic Desiccant (E00) -40°F ADP		
Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges For X03
	DRP-14-447/002	1
	DRP-14-447/008	4
4A Molecular Sieve (U00) -100°F ADP		
Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges For X03
DRP-85-060	DRP-14-514/002	1
	DRP-14-514/008	4

Note: Since X04 consists of two X03 dryers assembled together the amount of desiccant required for a total recharge is twice the amount listed above.



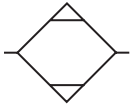
X04-02-000

Ordering Information

Model Type	Port Size	Polycarbonate Bowl	Metal Bowl
X03	1/4	X03-02-000	X03-02-M00
X04	1/4	X04-02-000	X04-02-M00

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.

Desiccant Dryer X25



X25-04-000

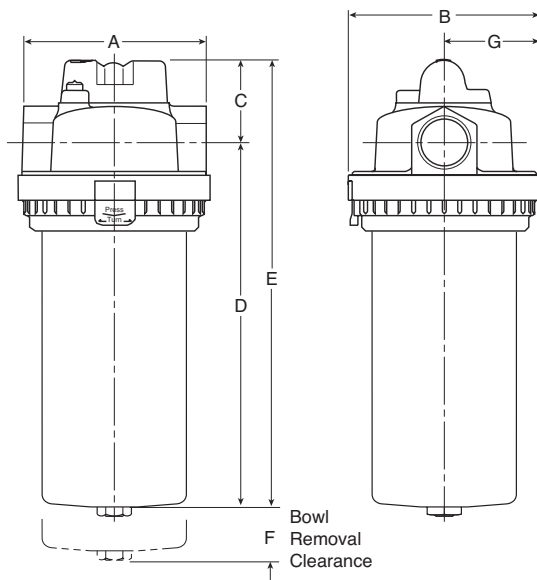
Features and Benefits

- Atmospheric Dew Points as Low as -100°F
- No Electrical Connection Necessary
- Color change of the Desiccant Provides an Instant Status of the Compressed Air System

Ordering Information

Model Type	Port Size	Metal Bowl
X25	1/2	X25-04-000

Options - To order an option supplied with the unit model, add the appropriate coded suffix letter in the designated position of the model number.



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G
Standard Unit X25-04-000		4.61 (117)	4.79 (121.6)	1.70 (43)	19.58 (497)	21.28 (540.5)	2.00 (50.8)	2.39 (60.8)

Specifications

Atmospheric Dew Point*-

Model 000	Silica Gel	-45°F (-43°C)
Model E00	Silica Gel (Non-toxic)	-45°F (-43°C)
Model U00	4A Molecular Sieve	-100°F (-52°C)

Maximum Continuous Air Flow*	25 SCFM (11.8 dm³/s)
Maximum Pressure	150 PSIG (10.3 bar)
Maximum Temperature	150°F (66°C)
Port Size	NPT / BSPP-G 1/2
Total Air Flow*	11,000 SCF (311 m³)
Total Minutes of Operation @ Continuous Air Flow	440 min.
Weight (with Desiccant) lb. (kg)	11.23 (5.1)
Weight Desiccant Alone lb. (kg)	4.4 (2.0)

* With dry desiccant at 100 PSIG (7 bar) and 70°F (21°C), saturated inlet (100% RH).

Materials of Construction

Body	Zinc
Bowls	Metal Bowl Aluminum
Bowl Guard	Aluminum
Seals	Fluorocarbon

Replacement Parts

Bowl O-ring.....	GRP-95-256
Clamp Ring	GRP-96-404
Moisture Indicator* DRP-95-623	
Replacement Cap for Moisture Removal	GRP-95-020
Screen Assembly.....	DRP-96-434
Tube Assembly with Screen.....	DRP-95-622

* The Moisture Indicator contains a weep orifice to provide an air sample to the moisture indicating paper. Air bleed from this indicator is necessary and normal.

Replacement Desiccant Kits

Silica Gel (000) -40°F ADP

Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges for X25
DRP-85-280	DRP-14-10B/005	1
	DRP-14-10B/015	3

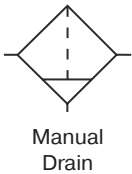
Non Toxic Desiccant (E00) -40°F ADP

Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges For X25
	DRP-14-447/005	1
	DRP-14-447/015	3

4A Molecular Sieve (U00) -100°F ADP

Old Replacement Kit Number	New Replacement Kit Number	# of Replacement Charges For X25
DRP-85-281	DRP-14-514/005	1
	DRP-14-514/015	3

Moisture Indicator X08



X08-02-000

Features

- Transparent Plastic Bowl Standard
- Silica Gel Changes Color For Moisture Indication

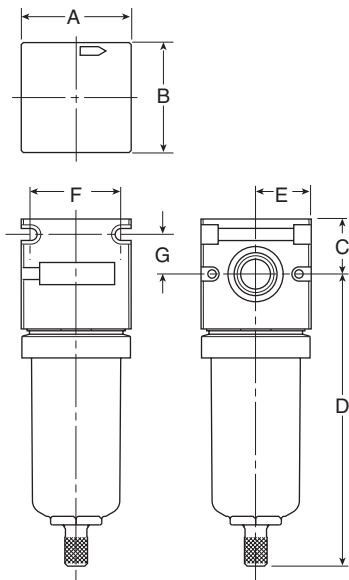
 = “Most Popular”

Specifications

Maximum Supply Pressure	150 PSIG (10.3 bar)	
Operating Temperature	32° to 120°F (0° to 49°C)	
Port Size	NPT / BSPT-Rc	1/4
Weight	lb. (kg)	0.34 (0.15)

Materials of Construction

Body	Zinc	
Bowls	Plastic Bowl	Polyurethane
Seals	Nitrile	



Dimensions

Models	Inches (mm)	A	B	C	D	E	F	G	H
Standard Unit X08-02-000		1.59 (40.5)	1.59 (40.5)	0.81 (20.6)	4.25 (107.9)	5.06 (128.5)	0.80 (20.2)	0.58 (14.7)	1.31 (33.3)

What is adsorption drying?

Drying compressed air through adsorption represents a purely physical process in which water vapor (adsorbate) is bound to the drying medium (adsorbent) through binding forces of molecular adhesion. Adsorbents are solids in spherical and granular form which are permeated by an array of pores. The water vapor is deposited onto the internal and external surface of the adsorption medium, without the formation of chemical compounds taking place, therefore the adsorption medium does not have to be replenished but only periodically regenerated.

Heatless

The layout of adsorption dryers with heatless regeneration is clear and simple. Compared with other adsorption dryer systems, pressure dewpoints down to -100°F (-73°C) can be achieved without additional effort.

Use in the higher pressure ranges and at low inlet temperatures causes the quantity of air needed for desorption to be reduced to an economical value.

At low operating pressure the demand for already dried compressed air for purposes of regeneration is increased. This increase causes a large proportion of the prepared compressed air to be no longer available for productive purposes.

Depending on the cycle, the quantity of air enclosed in the adsorber expands upon release at regular intervals with an emission noise level of about 90-95dB(A). Given suitable noise attenuation measures, a reduction of the noise emission level to the region of 10-15 dB(A) can be accomplished.

The use of adsorption dryers with heatless regeneration is preferred in the following applications:

- Capacity Range of Up to 800 SCFM
- Higher Pressure Ranges
- High Inlet Temperatures
- Installation in Explosion Proof Areas
- Use Under Ground Portable Applications
- Hazardous Locations (Pneumatic Controls)

Heatless Desiccant Air Dryers TW Series

 = "Most Popular"


The TW Series Heatless Desiccant Air Dryers remove water vapor from compressed air through a process known as pressure swing adsorption. Pressure dewpoints of -40°F (-40°C) standard are attained by directing the flow of saturated compressed air over a bed of desiccant.

Features

Allen-Bradley® PLC

- Two year dryer warranty (parts and labor)
- 4 line display
- NEMA 4X enclosure
- Selectable cycles

Switching Valves

- Five year switching valve warranty from manufacturer's defects (see warranty policy)

Factory Installed Filtration

- Single point connection for system integrity
- Differential pressure gauges for element condition
- Filter drains

Regulated Purge

- Factory set
- Optimum purge regardless of operating pressure
- Repressurization circuit

Specifications

Inlet or Ambient Air Temperature	120°F (49°C) maximum 50°F (10°C) minimum inlet
Operating Pressure	80 PSIG (5.5 bar) minimum
Working Pressure	150 PSIG (10.5 bar) maximum
Pressure Drop At Rated Flow	Less than 5 PSI (0.34 bar)
Primary Voltage	120V/1ph/60Hz

Heatless Desiccant Air Dryers, Filtration comes with Dryer unit as standard.

Part number	Capacity SCFM @ 100 psig	Approximate purge scfm	Dryer air port in/out (NPT)	Pre-filter	After-filter
TW41BN14NNN	40	6	1/2"	AAP015CFNI	AOP015CNFI
TW56BN14NNN	55	8	3/4"	AAP020DFNI	AOP020DNFI
TW76BN14NNN	75	11	3/4"	AAP025DNFI	AOP025DNMI
TW101BN14NNN	100	15	1"	AAP025ENFI	AOP025ENMI
TW131BN14NNN	130	20	1"	AAP025ENFI	AOP025ENMI
TW201BN14NNN	200	30	1-1/2"	AAP030GNFI	AOP030GNMI
TW251BN14NNN	250	38	1-1/2"	AAP035GNFI	AOP035GNMI
TW301BN14NNN	300	45	1-1/2"	AAP035GNFI	AOP035GNMI
TW401BN14NNN	400	60	2"	AAP040HNFI	AOP040HNMI
TW501BN14NNN	500	75	2"	AAP045INFI	AOP045INMI
TW601BN14NNN	600	90	2"	AAP045INFI	AOP045INMI
TW801BN14NNN	800	120	2"	AAP050INFI	AOP050INMI

LED Din Connectors

- Easy to maintain and service
- Valve(s) may be serviced without opening electrical enclosure
- No hard wiring required
- Visual indication of valve activation
- Valve labeling



Additional Features

- Separate tower pressure gauges
- OSHA approved mufflers with safety relief
- ASME/CRN vessels (TW101 and larger)
- Desiccant fill and drain ports
- Safety relief valves
- Stainless steel diffuser screens
- CycleLoc® demand control
- Control air line filter
- ETL listed (UL/CSA standards)
- LED din connector(s) all solenoid valves
- 120 VAC power (other options available - consult factory)
- Power cord with basic controller
- Power din connector with advanced controller
- Power On/Off switch with advanced controller
- Steel base TW1001 and larger

Options

- PowerLoc Energy Demand Control (TW41 - TW801) optional
- All NEMA classifications
- Control air tubing - stainless steel
- Low ambient package (-20°F to +40°F air temperature)
- Instrumentation
- Locally mounted pressure and temperature gauges at inlet and outlet
- Pneumatic controls
- ASME B31.3 piping
- Corrosion allowance
- High pressure applications: 200 psig design & 250 psig design adders are available

System Integrity

The TW Series Heatless Desiccant Air Dryers remove water vapor from compressed air through a process known as Pressure Swing Adsorption. Pressure dewpoints ranging from -40°F (-40°C) are attained by directing the flow of saturated compressed air over a bed of desiccant.

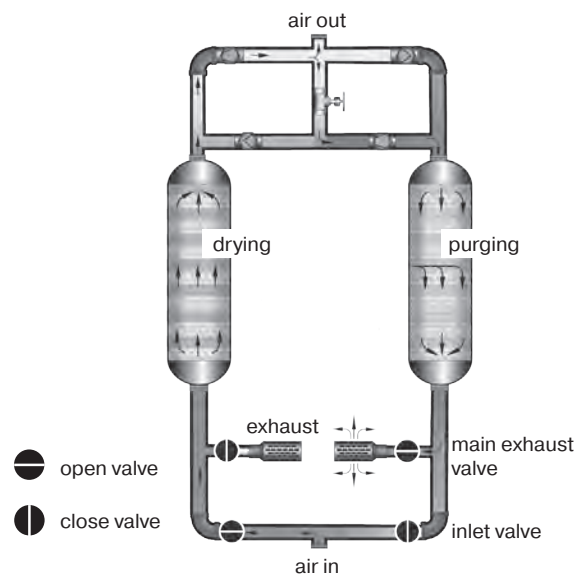
The most commonly used desiccant is activated alumina, a spherical shaped, hygroscopic material, selected for its consistent size, shape and extreme surface to mass ratio. This physically tough and chemically inert material is contained in two separate but identical pressure vessels commonly referred to as “dual” or “twin” towers.

As the saturated compressed air flows up through the “on-line” tower, its moisture content adheres to the surface of the desiccant. The dry compressed air is then discharged from the chamber into the distribution system.

An Allen-Bradley® PLC controller automatically cycles the flow of compressed air between the towers while the “on-line” tower is drying, the “off-line” tower is regenerating. Regeneration, sometimes referred to as purging, is the process by which moisture accumulated during the “on-line” cycle is stripped away during the “off-line” cycle. As dry low pressure purge air flows gently through the regenerating bed, it attracts the moisture that had accumulated on the surface of the desiccant during the drying cycle and exhausts it to the atmosphere.

To protect the desiccant bed from excess liquid, all TW Series Heatless Air Dryers are designed to work with the natural pull of gravity. By directing the saturated air into the bottom of the “on-line” tower and flowing up through the bed, liquid condensate caused by system upset, is kept away from the desiccant and remains at the bottom of the tower where it can be easily exhausted during the regeneration cycle. Counter flow purging ensures optimum performance by keeping the driest desiccant at the discharge end of the dryer.

Heatless dryers in general are the most reliable and least expensive of all desiccant type dryers. The Airtek TW Series Heatless Desiccant Air Dryers are more energy efficient than competitors thanks to standard features such as: variable cycle control, CycleLoc® and regulated purge flow.



Basic Controller

(Standard on Models TW41 - TW801)

- Allen-Bradley® PLC
- Nema 4X enclosure
- LCD user interface
- Four line digital display features:
 - Tower drying indication
 - Tower regenerating indication
 - Run status
 - Time remaining in cycle
- Selectable cycle settings
- Programmable drain timer (drain on, time and test)
- Compressor demand via external dry contact (CycleLoc®)
- Power ON/OFF switch
- Step-through regeneration for maintenance
- Cycle counter
- Hours of operation



Advanced Controller

(Optional on Models TW41 - 801)

- Allen-Bradley® PLC
- Powerloc® Energy Demand System
 - Energy savings percentage
 - Hours in power save
- Nema 4X enclosure
- 3.5" LCD user interface
- Dew point sensor input (-148°F to 68°F)
- Optional 4-20 mA output for remotely monitoring dew point
- Tower pressure sensors
- Inlet pressure and temperature sensors
- Compressor demand via external dry contact (CycleLoc®)
- Modbus/TCP communications via standard ethernet port
- Modbus RTU communications via optional RS232/485 port (Using external gateway device)
- SD card slot for accessing historical data and alarm information
- Selectable cycle settings
- Programmable drain timer (drain on, time and test)
- User selectable alarms with common alarm relay
 - High inlet temperature
 - Low inlet pressure
 - Tower failed to blow down (switch failure)
 - Tower failed to pressurize
 - High dew point
 - Sensor failure for all sensors
 - Switch failure
 - Inlet filter pressure
- Filter maintenance timer & alarm
- Clogged muffler maintenance and alarm
- Power ON/OFF switch
- Alarm log stores most recent alarms
- Flashes green when in energy savings mode
- Flashes red when an alarm is present
- Dry contact for common alarm



PowerLoc® Energy Management System

(Optional on Models TW41 - 801)**

Energy savings of up to 80% can be achieved with the proven PowerLoc® energy management system.

Regeneration requirements are dependent on flow, pressure and temperature. The PowerLoc® system allows the cost of drying compressed air to be matched exactly to your plant conditions.

PowerLoc® controls the drying cycle by continuously reacting to the loading under which the dryer is operating and minimizes the energy input required.

As dryers rarely operate at full rated capacity all of the time (eg. during shift work and periods of low demand), this energy management system can provide considerable savings.

The Advanced Controller is designed to accommodate Parker Airtek's PowerLoc Energy Management System. Flashes green when in energy saving mode.



High Performance Components

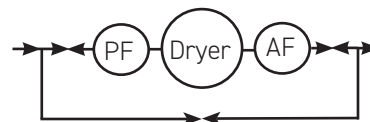
Poppet Valve

TW41 - TW801

- Stainless steel body
- Stainless steel internals
- PTFE seal
- Air activated, spring return
- Visual position indicator on exhaust valves
- ANSI Class VI shutoff
- Long service life
- Repair kits available
- 5 year valve warranty



Filter Package Schematic



Package "B"

(Standard TW41 - TW801)

Includes dryer with factory installed pre-filter and after-filter with system bypass

Flow correction factors

 = "Most Popular"

Capacities are based upon:

- Maximum inlet air or ambient air temperature 120°F (49°C)
- Maximum working pressure: 150 psig (10.5 bar g) standard units for high maximum working pressure are available
- Minimum operating pressure: 80 psig (5.5 bar g)

Correction Factors

To obtain drying capacity at new conditions: (nominal capacity) x C1 x C2

Temperature Correction Factor

Maximum inlet temperature (C1)	°F	90	95	100	105	110	115	120
	°C	32	35	38	41	43	46	49
	CF	1.17	1.15	1.00	0.87	0.76	0.66	0.58

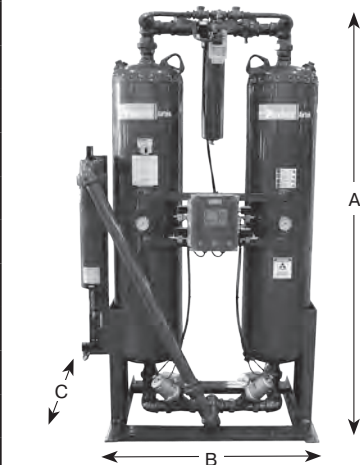
Pressure Correction Factor

Minimum inlet pressure (C2)	psi g	80	90	100	110	120	130
	bar g	5.5	6.2	6.9	7.6	8.3	9.0
	CF	0.83	0.91	1.00	1.09	1.17	1.26

Flows are at 100 psig inlet pressure, 100°F inlet temperature, and 100°F ambient temperature.

Weight includes desiccant dryer with basic controller FLA 2 amps, advanced controller FLA 3 amps.

Heatless Desiccant Air Dryers

TW Series 	Part number	A (length)	B (width)	C (depth)	Weight lbs. (kg)
	TW41BN14NNN	49 (1245)	21 (533)	25 (635)	190 (86)
	TW56BN14NNN	65 (1651)	22 (559)	31 (787)	230 (104)
	TW76BN14NNN	80 (2032)	34 (864)	29 (737)	384 (174)
	TW101BN14NNN	79 (2007)	36 (914)	30 (762)	468 (212)
	TW131BN14NNN	79 (2007)	36 (914)	30 (762)	496 (225)
	TW201BN14NNN	81 (2057)	42 (1067)	34 (864)	692 (314)
	TW251BN14NNN	81 (2057)	45 (1143)	36 (914)	776 (352)
	TW301BN14NNN	81 (2057)	45 (1143)	36 (914)	796 (361)
	TW401BN14NNN	83 (2108)	48 (1219)	41 (1041)	1626 (738)
	TW501BN14NNN	83 (2108)	51 (1295)	43 (1092)	1735 (787)
	TW601BN14NNN	84 (2134)	50 (1270)	44 (1118)	1740 (789)
	TW801BN14NNN	88 (2235)	56 (1422)	45 (1143)	2120 (962)

Repair and Service Kits

Dryer model	Pre-filter	Pre-filter element	After-filter	After-filter element
TW41	AAP015CFNI	P015AA	AOP015CNFI	P015AO
TW56	AAP020DFNI	P020AA	AOP020DNFI	P020AO
TW76	AAP025DNFI	P025AA	AOP025DNMI	P025AO
TW101	AAP025ENFI	P025AA	AOP025ENMI	P025AO
TW131	AAP025ENFI	P025AA	AOP025ENMI	P025AO
TW201	AAP030GNFI	P030AA	AOP030GNMI	P030AO
TW251	AAP035GNFI	P035AA	AOP035GNMI	P035AO
TW301	AAP035GNFI	P035AA	AOP035GNMI	P035AO
TW401	AAP040HNFI	P040AA	AOP040HNMI	P040AO
TW501	AAP045INFI	P045AA	AOP045INMI	P045AO
TW601	AAP045INFI	P045AA	AOP045INMI	P045AO
TW801	AAP050INFI	P050AA	AOP050INMI	P050AO

Automatic Electrical Drain Valve WDV3



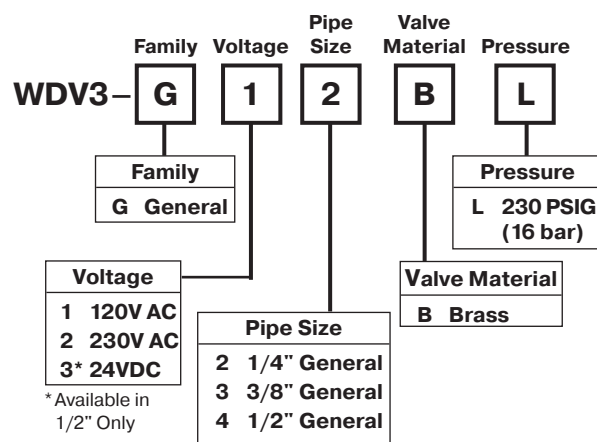
The WDV3 Electrical Drain is designed to remove condensate from compressors, compressed air dryers and receivers up to any size, type or manufacturer.

The WDV3 offers true installation simplicity and it is recognized as the most reliable and best performing condensate drain worldwide. The large orifice in the direct acting valve, combined with its sophisticated timer module ensure many years of trouble-free draining of condensate.

Benefits

- Does Not Air-Lock During Operation
- Compressed Air Systems up to Any Size
- The Direct Acting Valve is Serviceable
- Suitable for All Types of Compressors
- TEST (Micro-Switch) Feature
- High Time Cycle Accuracy
- Large (4.5mm) Valve Orifice

Ordering Information

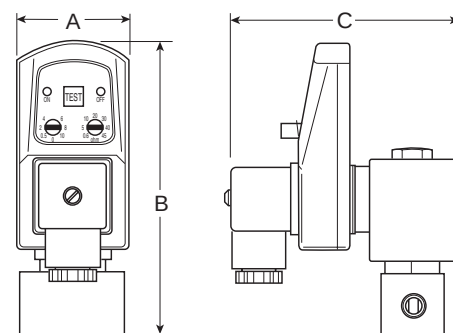


Specifications

Operating Pressure	230 PSIG (15,9 bar)	
Ambient Operating Range Temperature:	34° to 130°F (1.1° to 54°C)	
Coil Insulation	Class H	340°F (171.1°C)
Voltages	AC	115, 230/50-60
Timer:	Open Time	.5 to 10 sec., Adjustable
	Cycle Time	.5 sec. to 45 min., Adjustable
Maximum Current Rating	4mA Max.	
Port Size	1/4, 3/8, 1/2 NPT	
Weight	1.8 lb. (0.8 kg)	

Materials of Construction

Valve Body	Brass / Stainless Steel
Enclosure (NEMA 4)	ABS Plastic
Internal Parts	Brass / Stainless Steel
Sealing Material	FPM (Fluorocarbon)



Model Selection and Dimensions

Model Number	A	B	C
WDV3-G**BL	1.73 (44)	4.53 (115)	3.46 (88)

Zero Air Loss Condensate Drain ED



Zero air loss condensate drains are designed for economical removal of unwanted water, oil emulsions, and other liquids. These drains will only open when liquid is present and will not allow any compressed air to escape from the system.

Specifications

Operating Pressure	232 PSIG (16 bar)
Ambient Operating Range Temperature:	35° to 140°F (1.6° to 60°C)
Voltages	NPT 115/50-60Hz Standard BSPP 230/50-60Hz & 24VDC Optional

Zero Air Loss Condensate Drains

Port size (NPT)	Compressor Aftercooler (SCFM)*	Capacity Refrigeration Dryer (SCFM)**	Filter (SCFM)	Drain Capacity per Day (gal/liter)	Model Number	Service Kit
1 @ 3/8 (in), 1 @ 3/8 (out)	—	—	424	6 (22.7)	ED3002N115-K	SKED3000N115
1 @ 1/2 (in), 1 @ 3/8 (out)	141	282	1,413	13 (49.2)	ED3004N115-K	SKED3000N115
2 @ 1/2 (in), 1 @ 3/8 (out)	247	494	2,472	23 (87.1)	ED3007N115-K	SKED3000N115
2 @ 1/2 (in), 1 @ 3/8 (out)	1,059	2,119	10,594	100 (378.5)	ED3030N115-K	SKED3000N115
2 @ 1/2 (in), 1 @ 3/8 (out)	3,532	7,063	35,315	330 (1,249.2)	ED3100N115-K	SKED3000N115

* Based on 100 PSI working pressure, air compressor inlet at 77°F (25°C) at 60% RH, air discharge temperature of 95°F (35°C) following the aftercooler, pressure dewpoint of 37°F (2.8°C) after the refrigerated dryer.

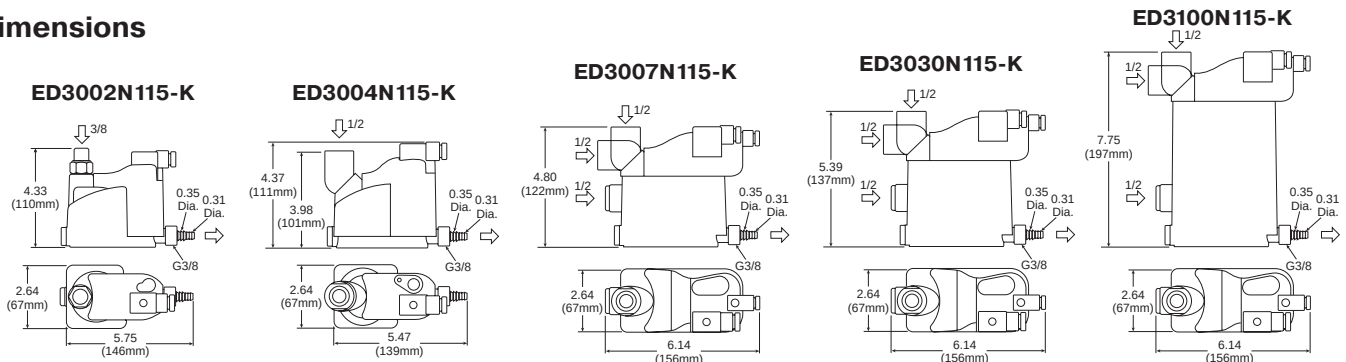
** Condensate from aftercooler or refrigerated dryer to be drained upstream – only for residual oil content or small quantities of condensate.

Note: A 6 ft. line cord will be included with each drain.

Where are Condensate Drains Used?

Compressor with Aftercooler	Receiver Tank	Filter	Air Dryer	Drip Leg
Removes the condensate that is collected after the air cools in the aftercooler	Removes the condensate that is collected when the air cools inside of the receiver tank	Removes the condensate that is collected in the filter bowl	Removes the condensate that is collected in the air dryer	Point-of-use applications: removes the condensate from compressed air pipes in a plant

Dimensions



Notes



Airline Accessories

Control Panel Products (Human / Machine Dialog) G3
Sensing (Pneumatic Control Components) G17
LV / EZ (Lockout Valves).....G35
Integrated FittingsG45
Accessories.....G53

Notes



Basic Features	G4-G5	Legend Plates, Specifications	G11
Push Button, Selector Switches with Bodies	G6	Mounting.....	G12
Push Buttons.....	G7	Visual Indicators 22mm (7/8")	G13
Selector Switches	G8	Foot Pedal Operated Switches	G14
Valve Bodies & Accessories	G9	Two-Hand Controls	G15-G16
Dimensions & Assembly	G10		

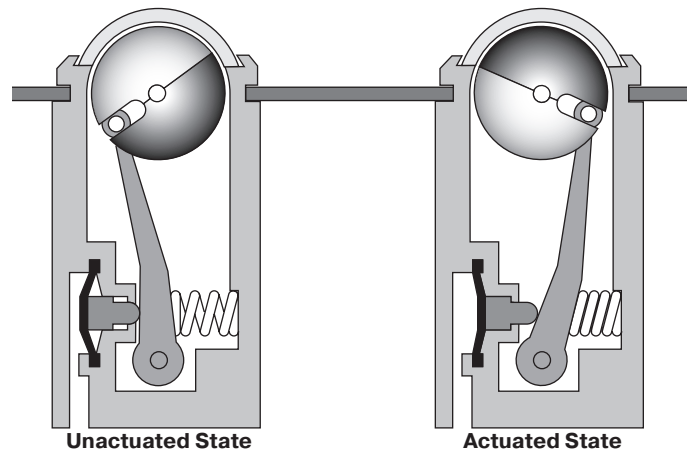
BOLD ITEMS ARE MOST POPULAR.

HUMAN-MACHINE DIALOG requires devices such as push buttons and selector switches to provide command inputs. A wide variety of these devices is available to meet most application needs. Both pneumatic and electrical switch bodies are available to match system technology. All of these devices use the 22 mm (7/8") mounting standard.



Pneumatic Visual Indicators

An indicator ball is rotated by a pneumatic input, changing the visible color. The ball sits behind a clear plastic window, providing a wide field of view. The visual indicators are available in five brightly colored Day-Glow paints for increased visibility. Like push buttons and selector switches, visual indicators use the 22mm (7/8") mounting standard.



G

Foot Pedal Switches

When the application requires the use of foot pedals, these devices can be used to initiate a cycle or a step within a cycle. A metal foot pedal is available with protective guard.



Metal Model



Plastic Model

Modular Pneumatic / Electric Push Buttons

As with electrical contact switches, pneumatic valve modules can be mounted on a number of different operating heads.

- Pneumatic normally non passing (NNP) is equivalent to electrical normally open (N.O.).
- Pneumatic normally passing (NP) is equivalent to electrical normally closed (N.C.).

Note: Electrical switches can be stacked, but the rear connection on pneumatic switches prevents stacking. Therefore, when mixing electrical and pneumatic switch bodies on the same operator, the pneumatic switch must be mounted last.



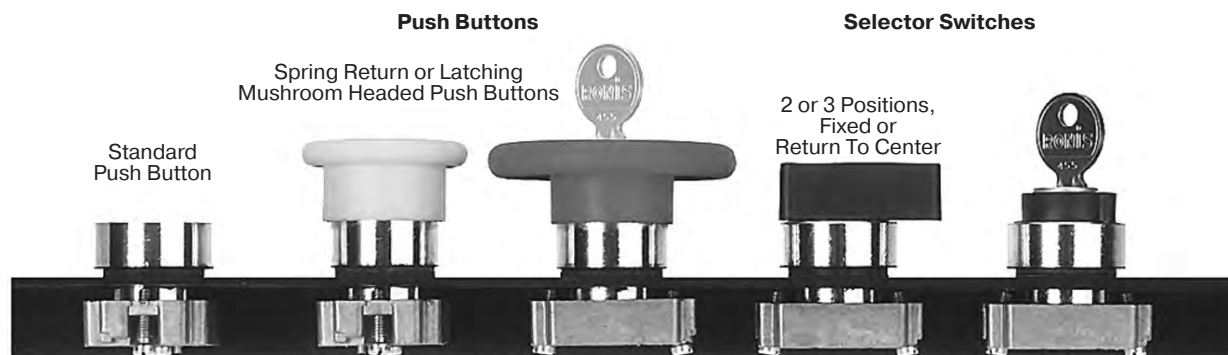
PXBB3911



PXBB4932



PXBB4931



With 3/2 Valve Bodies 5/32" Instant Straight Connections

Flush Push Buttons



PXBB3111BA2



PXBB4131BA2

Part Number	Color	Function	Type of Switching*
PXBB3111BA2	Black	Spring Return	NNP
PXBB3111BA3	Green		
PXBB3111BA4	Red		
PXBB3251BA2	Black	Spring Return	NNP+NP
PXBB4131BA2	Black	Spring Return	Single Universal 3-Way
PXBB4131BA3	Green		
PXBB4131BA4	Red		
PXBB4231BA2	Black	Spring Return	Dual Universal 3-Way

* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

Note: Mount up to three valves on mounting ring.

Selector Switches



PXBB3111BD2



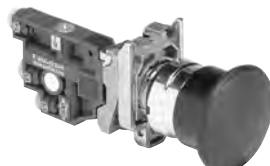
PXBB4131BD2

Part Number	Color	Function	Type of Switching*
PXBB3111BD2	Black	2 Maintained	NNP
PXBB3211BD2	Black	Positions with	NNP+NNP
PXBB3251BD2	Black	Std. Handle	NNP+NP
PXBB3211BD3	Black	3 Maintained Positions with Std. Handle	NNP+NNP
PXBB3251BD3	Black		NNP+NP
PXBB3211BJ5	Black	3 Positions, Spring Return to Center with Long Handle	NNP+NNP
PXBB4131BD2	Black	2 Maintained Positions with Std. Handle	Single Universal 3-Way
PXBB4231BD2	Black	2 Maintained Positions with Std. Handle	Dual Universal 3-Way
PXBB4231BD3	Black	3 Maintained Positions with Std. Handle	Dual Universal 3-Way
PXBB4231BJ5	Black	3 Maintained Positions with Long Handle	Dual Universal 3-Way

* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

Mushroom Head Push Buttons
(40mm Diameter)

PXBB3111BC2



PXBB4131BC2

Part Number	Color	Function	Type of Switching*
PXBB3111BC2	Black	Spring Return	NNP
PXBB3111BT4	Red	Push-Pull	
PXBB3121BT4	Red	Push-Pull	NP
PXBB4131BC2	Black	Spring Return	Single Universal 3-Way
PXBB4131BT4	Red	Push-Pull	

* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

Note: Mount up to three valves on mounting ring.

BOLD ITEMS ARE MOST POPULAR

For Use With PXBB Valve Bodies and ZBE Electrical Switch Bodies

Push Buttons

Mushroom Head Push Buttons



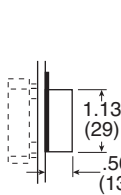
ZB4BA4



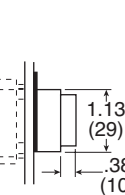
ZB4BL2



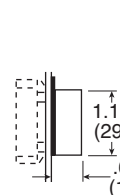
ZB4BP2



Flush



Extended



Booted

Plastic Head ZB5**	Metal Head ZB4*			
Part Number	Part Number	Color	Function	Description
ZB5AA2	ZB4BA2	Black	Spring Return	Flush
ZB5AA3	ZB4BA3	Green		
ZB5AA4	ZB4BA4	Red		
—	ZB4BA5	Yellow		
—	ZB4BA6	Blue		
ZB5AL2	ZB4BL2	Black	Spring Return	Extended
ZB5AL3	ZB4BL3	Green		
ZB5AL4	ZB4BL4	Red		
—	ZB4BL5	Yellow		
—	ZB4BP2	Black	Spring Return	Booted
—	ZB4BP3	Green		
—	ZB4BP4	Red		

* ZB4*** Model Numbers are Metal Head Operators

** ZB5*** Model Numbers are Plastic Head Operators

Push / Push Buttons



ZB4BH02

Part Number*	Color	Function	Description
ZB4BH02	Black	Detent 2-Position	Flush
ZB4BH03	Green		
ZB4BH04	Red		

* ZB4**** Model Numbers are Metal Head Operators



ZB4BC2



ZB4BR2



Spring Return



Push / Pull

Part Number*	Color	Function	Description	
ZB4BC2	Black	Spring Return	Ø 40mm Head	
ZB4BC3	Green			
ZB4BC4	Red			
ZB4BT2	Black	Latching Push-Pull		
ZB4BT3	Green			
ZB4BT84	Red			
ZB4BR2	Black	Spring Return	Ø 60mm Head	
ZB4BR3	Green			
ZB4BR4	Red			

* ZB4*** Model Numbers are Metal Head Operators

Mounting Accessories



ZB5AZ905

Part Number	Color	Description
ZB5AZ905	—	Plastic Head (ZB5) Mounting Nut Tightening Tool

For Use With PXBB Variable Composition Switch Bodies

Selector Switches

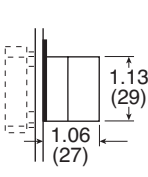
Key Operated Selectors



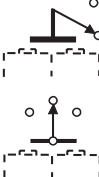
ZB4BD3



ZB4BJ3



Standard Selector



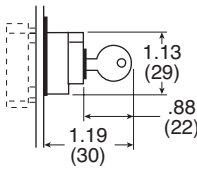
Knob Lever

Standard Black Handle		
Part Number*	Description	Function
ZB4BD2	Maintained	2-Positions
ZB4BD4	Spring Return from Right to Left	
ZB4BD3	Maintained	3-Positions
ZB4BD5	Spring Return to Center from Left and Right	
ZB4BD7	Maintained Right Spring Return from Left to Center	3-Positions
ZB4BD8	Maintained Left Spring Return from Right to Center	3-Positions
Long Black Handle		
ZB4BJ2	Maintained	2-Positions
ZB4BJ4	Spring Return from Right to Left	
ZB4BJ3	Maintained	3-Positions
ZB4BJ5	Spring Return to Center from Left and Right	

* ZB4*** Model Numbers are Metal Head Operators



ZB4BG2



Key Operated

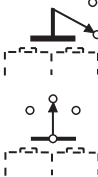
Part Number*	Key Withdrawal	Function
ZB4BG2	Left	2 Maintained
ZB4BG4	Left and Right	Positions
ZB4BG3	Center	3 Maintained
ZB4BG5	Left and Right	Positions
ZB4BG7	Center	3 Positions 2 Spring Return to Center

* ZB4*** Model Numbers are Metal Head Operators

Mushroom Head Push Buttons with Key Select



ZB4BS944



Key Select

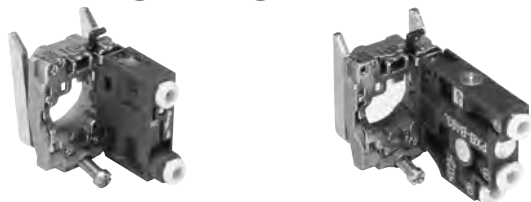
Part Number*	Color	Function	Description
ZB4BS844	Red	Latching Turn to Release	Ø 40mm Head
ZB4BS944	Red	Key Latching	

* ZB4**** Model Numbers are Metal Head Operators

BOLD ITEMS ARE MOST POPULAR

For Use With 22mm (7/8") Metal Operating Heads 5/32" Instant Connections

3/2 Valve Bodies with Mounting Ring



PXBB3111B

PXBB4131B

Part Number	Connections	Function	Type of Switching*
PXBB3111B	5/32" Instant	3/2	NNP
PXBB3121B	5/32" Instant	3/2	NP
PXBB4131B	5/32" Instant	3/2	Universal 3-Way

Note:

- Mount up to 3 valves on mounting ring for push buttons.
- Mount up to 2 valves on mounting ring for selector switches, Valves **cannot** be mounted in center position.

Specifications

Air Quality –		Standard Shop Air, Lubricated or Dry	40 µm Filtration
Flow –		PXBB3 •	Cv=.08
		PXBB4 •	Cv=.18
Materials –		Body	Polyamide
		Operating Head	Zinc Alloy & Plastic
Operating Positions		All Positions	
Operating Pressure –		PXBB3 •	15 to 115 PSIG (1 to 9 bar)
		PXBB4 •	15 to 145 PSIG (1 to 10 bar)
Ports		5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube	
Temperature –		Operating	5°F to 140°F (-15°C to +60°C)

Additional Valve Bodies



PXBB3911

PXBB4932

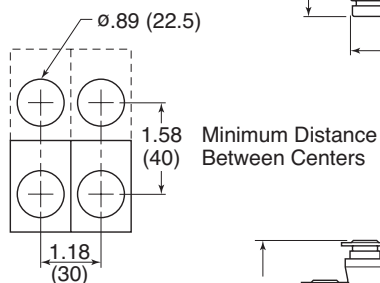
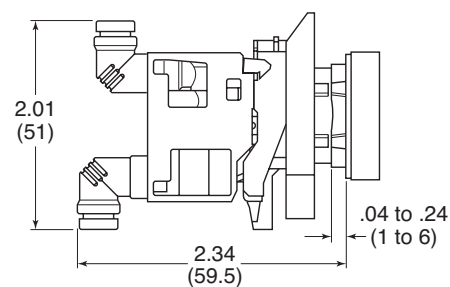
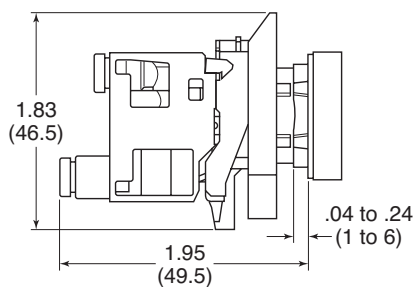
PXBB4931

Part Number	Connections	Function	Type of Switching*
PXBB3911	5/32" Instant Straight	3/2	NNP
PXBB3912	5/32" Instant Swivel		
PXBB3921	5/32" Instant Straight	3/2	NP
PXBB3922	5/32" Instant Swivel		
PXBB4931	5/32" Instant Straight	3/2	Universal 3-Way
PXBB4932	5/32" Instant Swivel		

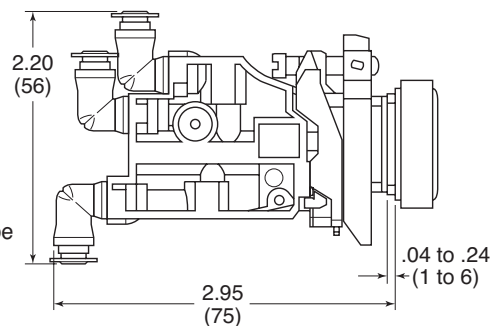
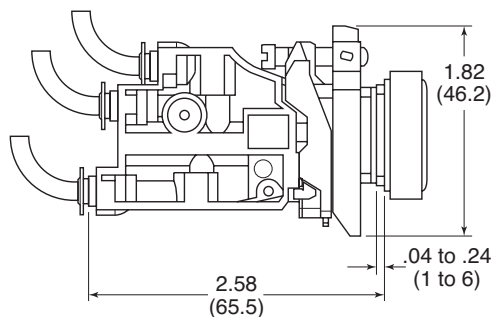
BOLD ITEMS ARE MOST POPULAR

Dimensions

PXB-B3 Dimensions



PXB-B4 Dimensions

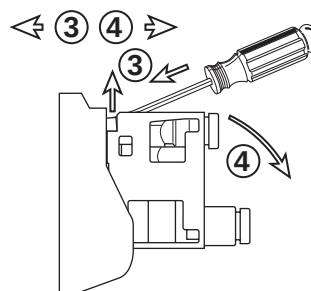
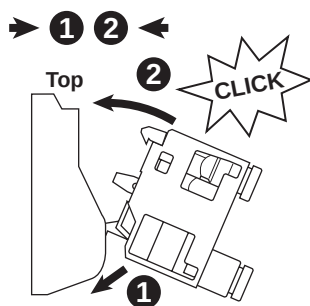


Tube Bending Radius For PXBB3 and PXBB4

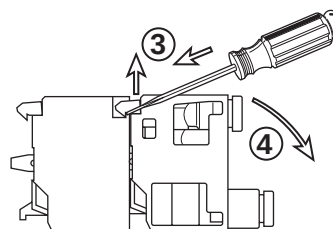
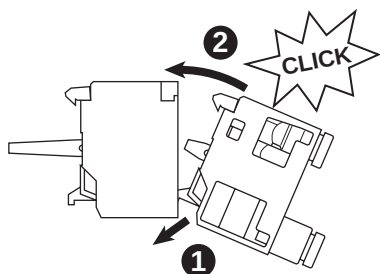
- 4 mm O.D. x 2 mm I.D. Tube
= Minimum 0.39 (10) Radius
- 4 mm O.D. x 2.7 mm I.D. Tube
= Minimum 0.59 (15) Radius

Assembly

Assembling PXB Valves On Mounting Block



Assembling PXB Valves On the Back of the Electrical Contact



For Push Buttons and Visual Indicators

Legend Plates

for PXBB
Devices
(22mm)

ZBY••••

Part Number	Description
Without Text For Customer Engraving	
ZBY2101	Black / Red Background (White Letters)
ZBY4101	Yellow / White Background (Black Letters)
With Text For Push Buttons	
ZBY2303	Start
ZBY2304	Stop
ZBY2305	Forward
ZBY2306	Reverse
ZBY2307	Up
ZBY2308	Down
ZBY2309	Right
ZBY2310	Left
ZBY2311	On
ZBY2312	Off
ZBY2313	Open
ZBY2314	Close
ZBY2321	Inch
ZBY2323	Reset
ZBY2326	Power On
ZBY2327	Slow
ZBY2328	Fast
ZBY2330	Emergency Stop
ZBY2334	Run
With Text For 2-Position Selectors	
ZBY2367	Off On
With Text For 3-Position Selectors	
ZBY2387	Hand Off Auto

Blank Legend Plates for Inscription

For PXBB Devices (2 lines of 11 characters maximum) Please indicate the required text when ordering. (Allow 3 weeks for delivery)	
Part Number	Description
ZBY2002	Black Background / White Letters

For 22mm Visual Indicators Only

2 lines of 11 characters maximum**Please indicate the required text when ordering.**
(Allow 3 weeks for delivery)

Part Number	Description
ZB2BY2002	Black Background / White Letters

Accessories



ZBE101

Electrical Switch Bodies

When combined with pneumatic valves, these contact blocks allow different forms of power to be provided from a single push button. Can be mounted with both types of valves PXBB3 / PXBB4.

Electrical Specification: 240V, 10Amp

Part Number	Type of Contact
ZBE101	Normally Open (NO)
ZBE102	Normally Closed (NC)

Note: Plastic Mounting Ring ZB5AZ009 to be used with ZB5 Plastic Operating Heads.

Metal Mounting Ring ZB4BZ009 to be used with ZB4 Metal Operating Heads.



Metal: ZB4BZ009



Plastic: ZB5AZ009

Mounting Ring for Valve Bodies, Switch Bodies and Operating Heads

To make up a complete push button with one to three switching elements with 5/32" instant connections, use this mounting block and select the operating heads and bodies in this Section.

Part Number	Description
ZB4BZ009	Metal Mounting Ring
ZB5AZ009	Plastic Mounting Ring

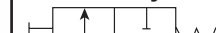
To make up a complete selector switch with one or two switching elements with 5/32" instant connections, use this mounting block and select the operating heads and bodies in this Section.

Part Number	Description
ZB4BZ009	Metal Mounting Ring
ZB5AZ009	Plastic Mounting Ring

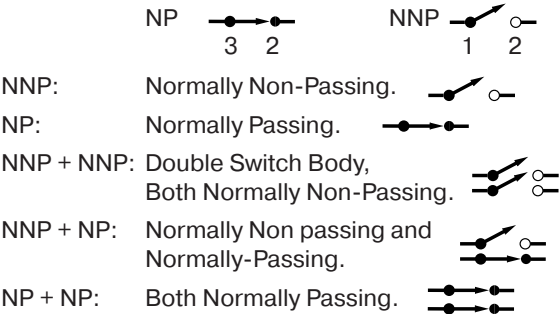
Note: To release push button from mounting ring, pull lever on top of mounting ring up and remove push button operator. To assemble push button operator to mounting ring, align arrows and snap into place.

BOLD ITEMS ARE MOST POPULAR

Functionality Explanation

Fluid Power			Universal Description	Electrical	
Function	Symbol			Function	Symbol
Normally Closed (N.C.)	2-Way 	3-Way 	Normally Non-Passing (NNP)	Normally Open (N.O.)	
	2-Way 	3-Way 			

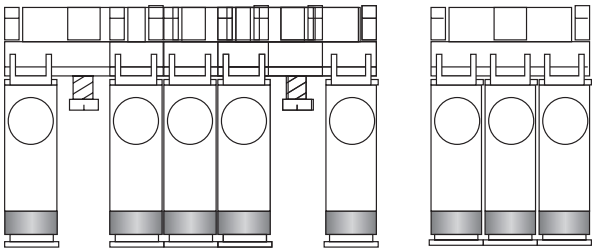
Type of Switching: Universal 3-Way: Valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.



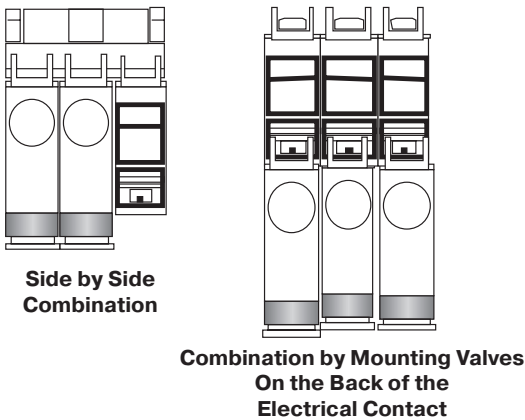
Combination of Output Devices On a Single Mounting Block

Up to 3 output devices (valves or electrical contacts) can be mounted side by side on 1 mounting block.

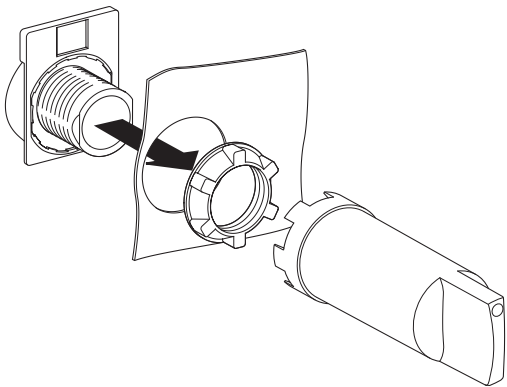
Note: The central position can only be activated by push button heads.



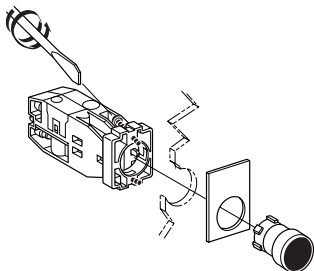
Electrical Contacts and Valves can be Combined Either Side by Side, or by Mounting the Valve on the Back of the Electrical Contact.



Assembling Output Devices and Heads On ZB5 Series Mounting Block

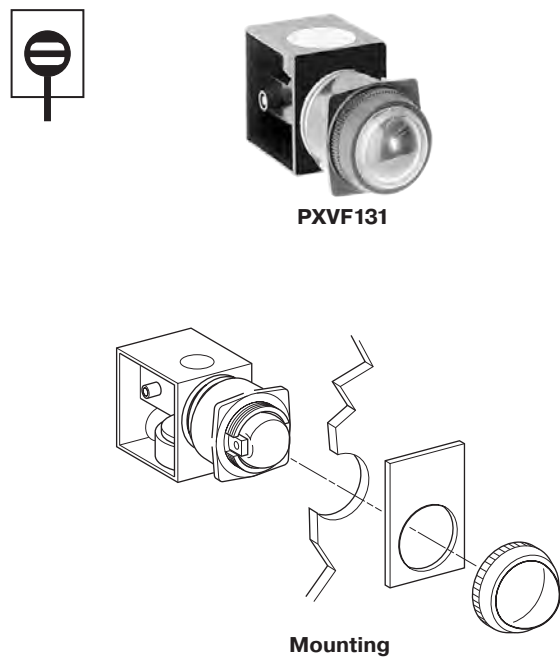


Mounting



With 5/32" Instant Connections

22mm Visual Indicators



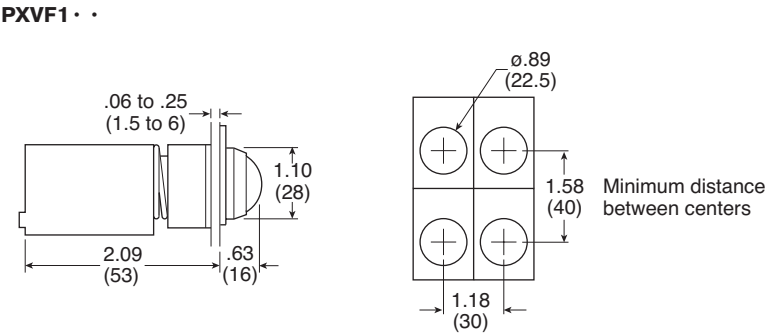
Specifications

Air Quality –	
Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Number of Operations with Dry Air at 90 PSI (6 bar)	
and 68°F (20°C) - Frequency 1 Hz	1 million Operations
Mushroom Head	300,000 Operations
Operating Positions	
All Positions	
Operating Pressure	
15 to 115 PSIG (1 to 8 bar)	
Ports –	
Standard	5/32" Instant for Semi- Rigid Nylon or Polyurethane Tube
10-32 UNF Available	
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to +60°C)

Black Plastic Bezel		
Part Number "ON" Indicator	Part Number "OFF" Indicator	Color
PXVF131	PXVF1213	Green
PXVF141	PXVF1214	Red
PXVF151	PXVF1215	Yellow
PXVF161	PXVF1216	Blue
PXVF111	PXVF1211	White

- Notes:
- The Pneumatic Indicators are black in one position and colored in the other. The colored position corresponds either to the presence of a pressure ("ON" Indicator) or the absence of pressure ("OFF" Indicator).
 - For Legend Plates, see page G11.

Dimensions



Standard Duty 1/6" I.D. Valves with 5/32" Instant Connections

Protective Guard



PXPEM510

Part Number	Function	Material	Type of Switching*
PXPEM510	High resistance protective guard, with interlock mechanism to prevent accidental operation by a falling object.	Metal	NNP

Foot Switches Without Protective Guard



PXPEA110

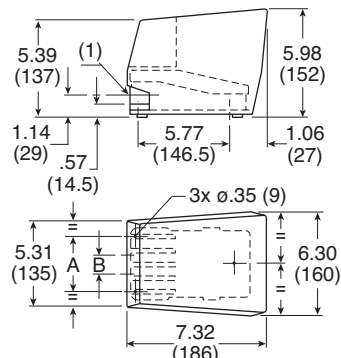
Part Number	Function	Material	Type of Switching*
PXPEA110	Spring Return	Plastic	NNP
PXPEM110	Spring Return	Metal	NNP

**CAUTION:**

This valve shall not be used to actuate a punch press. Do not use this valve on punch presses or press brakes. See OSHA 1910.217.

Dimensions

PXPEM510



(1) 2 mounting ports for adaptors for conduit fittings

(2) 7° operating angle

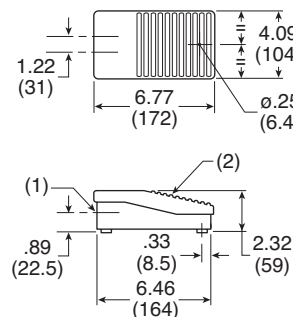
	inch	mm
a	3.53	940
b	1.22	31

Notes: These Foot Pedal Operators come assembled with switch PXBB 1921 (Normally Passing). With the pedal in the unoperated position, the switch is in the actuated non-passing position. With the pedal actuated, the switch is in the unactuated Normally Passing position.

Units will accept all switch bodies shown earlier in this Section, but care must be taken in selecting switch type.

Dimensions

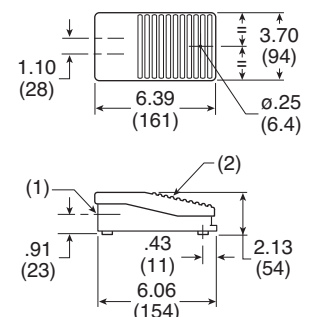
PXPEM110



(1) .825" diameter thru hole

(2) 6° operating angle

PXPEA110



Specifications

Air Quality –	
Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow at 90 PSI (6 bar) in SCFM (l/mn ANR)	1.8 (50)
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Nominal Bore Ø in Inches (mm)	1/16" (1.5)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz.....	1 million Operations

Operating Positions	All Positions
Operating Pressure	15 to 115 PSIG (1 to 8 bar)
Ports –	5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube
Temperature –	
Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to + 60°C)

* NNP: Normally Non-Passing.

Two-Hand Control Enclosure

Features

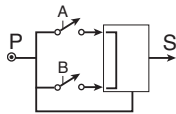
- The Pre-assembled Two-Hand Control Enclosure Occupies Both Hands of an Operator by Requiring Nearly Simultaneous Operation of Two Push buttons
- Poppet – Snap-acting (No Spools)
- Same Air as in Cylinders – Filtration: 40 Micron
- No Lubrication Required



PXP-C111-A

Part Number	Connections
PXP-C111-A	5/32" Instant

Operation



- Output "S" will appear only if "A" and "B" are simultaneously operated (within .5 seconds or less of each other).
- If the operator actuates only one push button, either "A" or "B", or if both "A" and "B" are actuated but at an interval greater than .5 seconds, output "S" will not appear.
- Output "S" is regenerated by supply "P". Output "S" will therefore disappear if supply "P" is cut off.
- Output "S" will disappear if either "A" or "B" is released.
- If output "S" disappears for any reason, "A" and "B" must be nearly simultaneously actuated to again provide output "S".
- Since output "S" is regenerated it appears sharply, at full force (snap-acting), and is quickly exhausted upon deactivation. In addition the module is not affected by the length or diameter of tubing used for output "S".

Specifications

Operating Pressure	40 to 120 PSI (3 to 8 bar)
Permissible Fluids –	Air or neutral gas 40 micron filtration, lubricated or dry
Flow at 90 PSI (6 bar)	7 SCFM (200 l/mn ANR)
Operating Temperature	-5°F to 140°F (-15°C to 60°C) Below 40°F (5°C), an air dryer is required
Storage Temperature	-40°F to 160°F (-40°C to 70°C)
Number of operations with dry air at 90 PSI (6 bar), 68°F (20°C), frequency 1 Hz	1 Million Operations
Vibration resistance –	Conforms to section 19-2 of bureau Véritas regulations (November 1987)
Materials –	
Body	Glass Filled Nylon
Operating Head	Zinc Alloy and Plastic
Connections	5/32" instant

Mounting

Approvals:

- In accordance with European Standard EN 574 - September 1996
- Conforms to the model that has obtained CE Type Test Certificate No. 02526 520 4631 0397

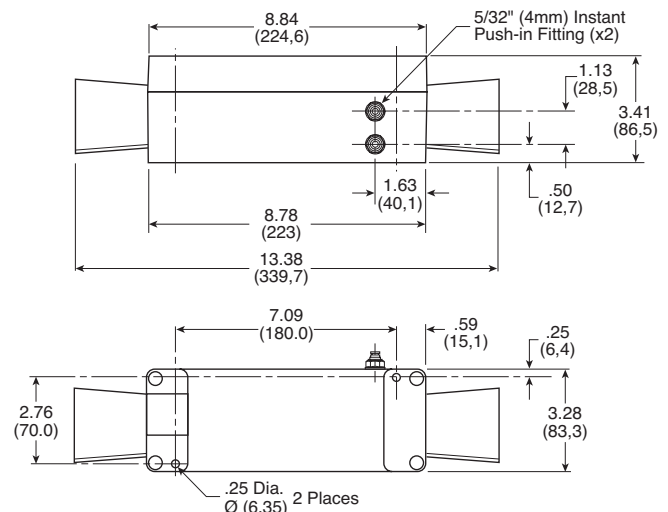


WARNING

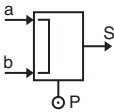
These devices should **NOT** be used in any application involving rotary clutch presses. Two hand control modules do not of themselves insure the safety of any machine. Users and original equipment manufacturers are responsible for making sure that installations meet all relevant safety regulations.

Dimensions

Inches (mm)



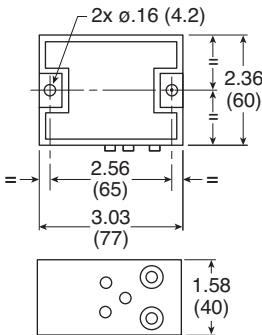
Two-Hand Control Module



PXPA11

Part Number	Connections
PXPA11	5/32" Instant

Dimensions



PXPA11

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow at 90 PSI (6 bar) in SCFM (l/mn ANR)	7 (200)
Materials –	
Body	Polyamide
Operating Head	Zinc Alloy & Plastic
Nominal Bore Ø in Inches (mm)	7/64" (2.5)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz	
1 million Operations	
Operating Positions	All Positions
Operating Pressure	40 to 115 PSIG (3 to 8 bar)
Ports –	
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube	
Temperature –	
Operating	32°F to 122°F (0°C to 50°C)
Storage	-22°F to 140°F (-30°C to 60°C)
Vibration resistance –	
Conforms to section 19-2 of bureau Véritas regulations (November 1987)	

WARNING

These devices should **NOT** be used in any application involving rotary clutch presses. Two hand control modules do not of themselves insure the safety of any machine. Users and original equipment manufacturers are responsible for making sure that installations meet all relevant safety regulations.

Notes: These two-hand control modules provide an output signal upon nearly concurrent operation of two push buttons.

G

Two-Hand Control Module Guard



PPRL15

Part Number	Base Component
PPRL15	PXPC111

Two Hand Repair Parts

Part Number	Quantity Required	Description
PXPA11	1	Control Module
PXBB3111B	2	Valve Body & Mounting Ring
ZB4BR*	2	Push Button
PPRL15	2	Control Module Guard

* 2 = Black, 3 = Green, 4 = Red



Basic Features – Pneumatic Sensors G18

Limit Switches

 3/2 Miniature Limit Switches.....G19-G20

 3/2 Compact Limit Switches.....G21-G22

 K Series – Standard Duty Limit Switches G23-G26

 J Series – Heavy Duty Limit Switches G27-G29

PWBA Blocking Valves.....G30-G31

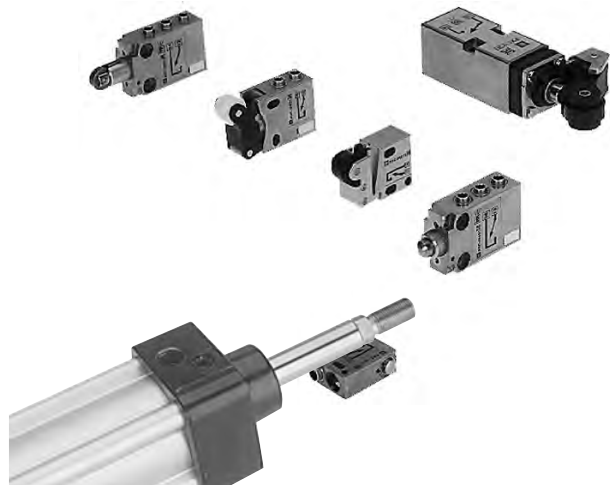
Threshold Sensors G32-G34

Pneumatic Sensors

To achieve the sensing or feedback function, pneumatic sensors can be:

- Limit Switches in a Variety of Sizes and Configurations
- Pressure Switches with Many Adjustable Ranges
- Components Designed Specifically for Pneumatic Technology using Pressure Variation, Air Bleed or Blocking for Detection.

A wide variety of pneumatic sensor are available to suit any application requirement.



Pneumatic Limit Switches

Pneumatic limit switches are non-passing (NNP) or passing (NP) when actuated by a moving part. The various operating levers, bore dimensions and functions are given below.

Interchangeable
with an Electrical
Microswitch



1/16" Bore

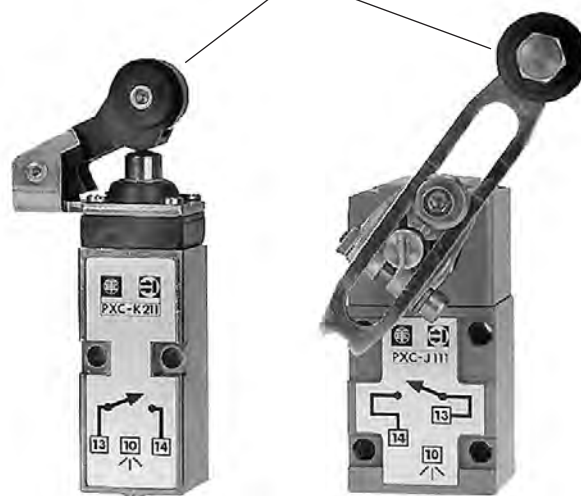
1/16" Bore

7/64" Bore



Normally Non-Passing (NNP) Models

Multiple Operating Heads

1/8" Bore
Connectable Exhaust1/8" Bore
Connectable Exhaust

NNP or NP, as Required

G

Airline Accessories

Direct Acting Limit Switches

1/16" I.D. Internal Orifice



PXCM111



PXCM121

Part Number	Connection	Actuator	Type of Switching*
PXCM111	5/32" Instant	Steel Plunger Operating Levers Available (See Below)	NNP
PXCM115	10-32 UNF		
PXCM121	5/32" Instant	Plastic Roller	NNP
PXCM125	10-32 UNF		

Specifications

Air Quality –

Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (NI/min) –

PXCM111	2.2 (60)
PXCM121	3.0 (85)
PXCM521	8.8 (250)

Materials –

Body	Zinc Alloy
Poppets	Polyurethane
Seals	Nitrile (Buna N)

Maximum Operating Frequency 5 Hz

Nominal Bore Ø –

PXCM111, PXCM121	1/16" (1.5 mm)
PXCM521	7/64" (2.5 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz 10 Million

Operating Positions All Positions

Operating Pressure 40 to 115 PSIG (3 to 8 bar)

Ports –

5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube
10-32 UNF Available

Temperature –

Operating	32°F to 122°F (0°C to + 50°C)
Storage	-22°F to 140°F (-30°C to + 60°C)

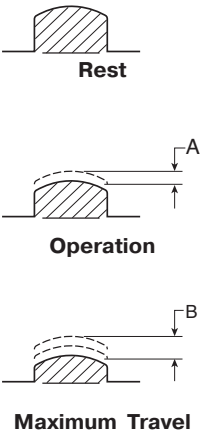
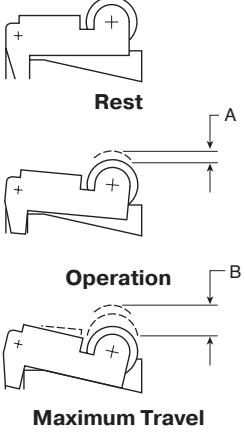
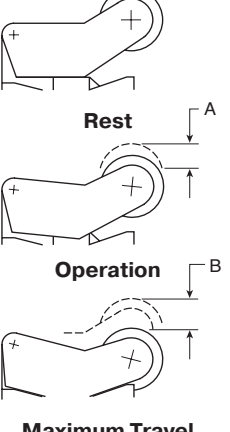
7/64" I.D. Internal Orifice



PXCM521

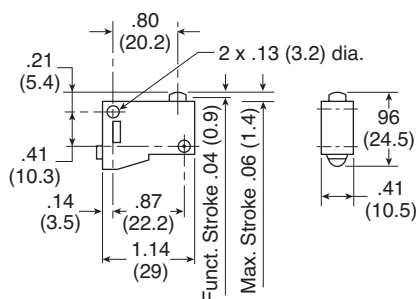
Part Number	Connection	Actuator	Type of Switching*
PXCM521	5/32" Instant	Plastic Roller	NNP

Operator Specifications

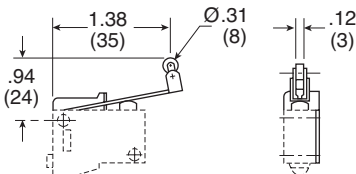
	PXCM111	PXCM121	PXCM521
Differential Travel at 90 PSI (6 bar)	.006" (0.15 mm)	.012" (0.3 mm)	.020" (0.5 mm)
Maximum Travel (B) at 90 PSIG (6 bar)	.055" (1.4 mm)	.126" (3.2 mm)	.228" (5.8 mm)
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.035" (0.9 mm)	.079" (2 mm)	.087" (2.2 mm)
Minimum Operating Force at 90 PSI (6 bar)	2.5 lb (11 N)	1.0 lb (4.5 N)	1.6 lb (7 N)
Operating Diagram			

Dimensions

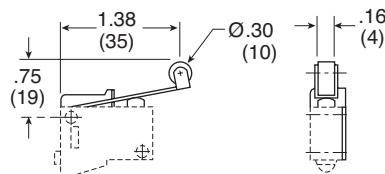
PXCM111



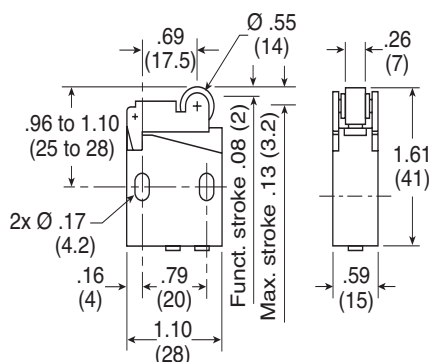
PXCZ12



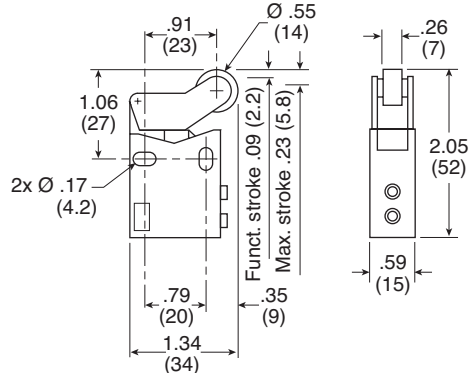
PXCZ11



PXCM121, PXCM131



PXCM521



Pilot Operated Compact Limit Switches

5/32" Instant Connections
Pipeable Exhaust Port
7/64" I.D. Internal Orifice



Part Number	Actuator	Type of Switching*
PXCM601A110	Steel Plunger Operating Levers Available (See Below)	NNP
PXCM601A102	Steel Roller Plunger	
PXCM601A103	90° Steel Roller Plunger	

Specifications

Air Quality – Standard Shop Air, Lubricated or Dry, 40µm Filtration	
Flow SCFM (NI/min)	8.8 (250)
Materials – Body Poppets Seals	
Zinc Alloy Polyurethane Nitrile (Buna N)	
Maximal Operating Frequency	5 Hz
Nominal Bore Ø	7/64" (2.5 mm)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1	
Hz10 Million	
Operating Positions	All Positions
Operating Pressure	40 to 115 PSIG (3 to 8 bar)
Ports – 5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube	
Temperature – Operating Storage	
32°F to 122°F (0°C to + 50°C) -22°F to 140°F (-30°C to + 60°C)	

Actuators For Steel Plunger

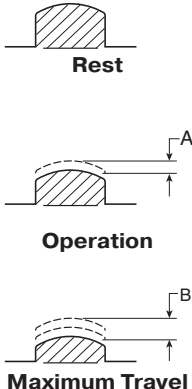
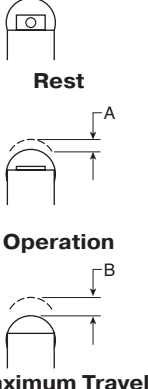
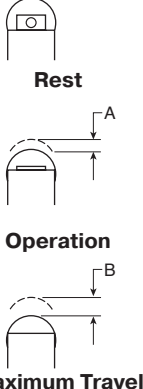
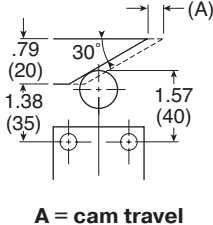


Use with PXCM601A110

Part Number	Actuator
XCMZ24	90° Stainless Steel Roller Lever, One Way Trip

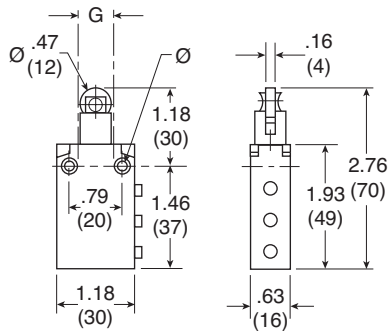
* NNP: Normally Non-Passing.

Operator Specifications

	PXCM601A110	PXCM601A102	PXCM601A103	PXCM601A110 + XCMZ24
Differential Travel at 90 PSI (6 bar)	.012" (0.3 mm)	.008" (0.2 mm)	.020" (0.5 mm)	.047" (1.2 mm) (A)
Maximum Travel (B) at 90 PSIG (6 bar)	.197" (5 mm)	.197" (5 mm)	.197" (5 mm)	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.066" (1.7 mm)	.066" (1.7 mm)	.066" (1.7 mm)	.370" (9.4 mm) (A)
Minimum Operating Force at 90 PSI (6 bar)	5.4 lbf (24 N)	5.2 lbf (23 N)	5.2 lbf (23)	4.3 lbf (19)
Operating Diagram				 A = cam travel

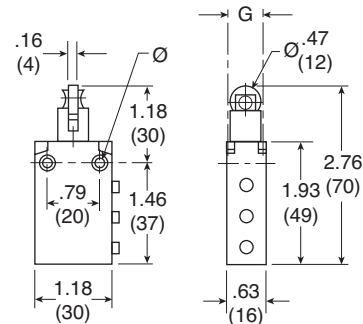
Dimensions

PXCM601A102

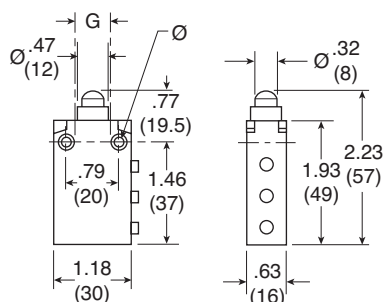


$\varnothing$:
 2 mounting holes $\varnothing .17$ " (4.3)
 2 countersunk $\varnothing .32$ " (8.2)
 depth 4 mm

PXCM601A103

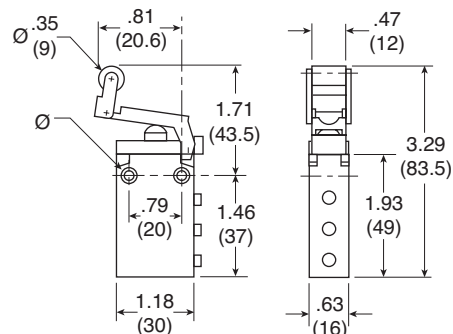


PXCM601A110



G:
 top mounting holes, 2 x M5
 .71" (18 mm) centers

PXCM601A110 + XCMZ24



Limit Switches

Plunger Operated
5/32" Instant Connections
Pipeable Exhaust Port
1/8" I.D. Internal Orifice

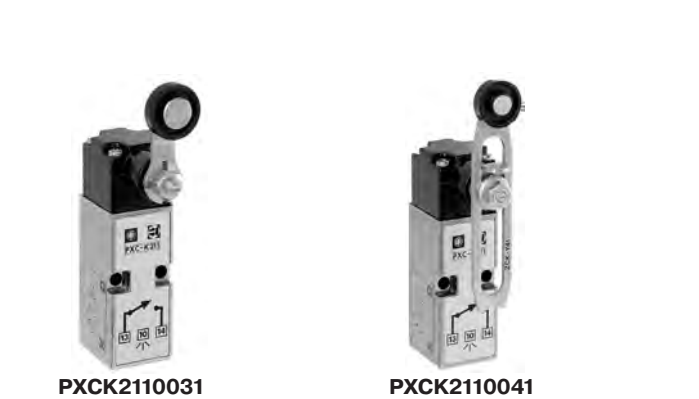


Complete Assemblies		
Part Number	Actuator	Type of Switching*
PXCK21101	Steel Plunger	NNP
PXCK22101		NP
PXCK21102	Steel Roller Plunger	NNP
PXCK22102		NP
PXCK21121	Plastic Roller Plunger	NNP
PXCK22121		NP
PXCK21106	Cats Whisker	NNP
PXCK22106		NP

NNP: Normally Non-Passing

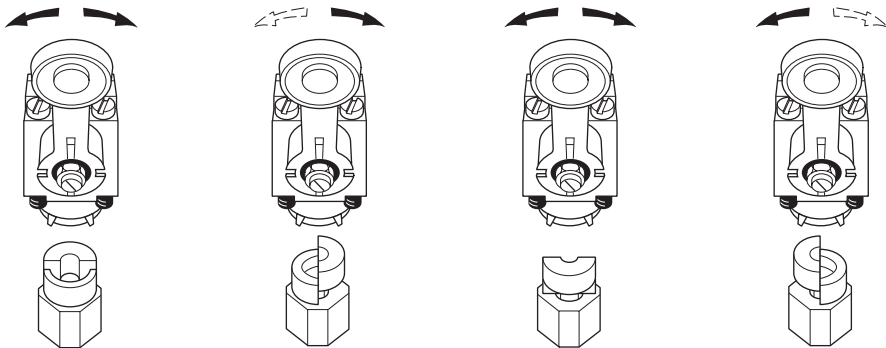
NP: Normally Passing

Roller Operated
5/32" Instant Connections
Pipeable Exhaust Port
1/8" I.D. Internal Orifice



With Die Cast Rotary Operating Head and Operating Lever - Complete Assemblies		
Part Number	Actuator	Type of Switching*
PXCK2110031	Fixed Delrin Roller Lever Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK2210031		NP
PXCK2110041	Adjustable Delrin Roller Lever Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK2210041		NP

Field Conversion of Rotary Operating Head



Separate Pneumatic Switch Bodies



PXCK211

Part Number	Actuator	Type of Switching*
PXCK211	For Use with ZCK Series Operating Heads	NNP
PXCK221		NP

Operating Heads

For Use With PXCK Switch Bodies



ZCKG00

Part Number	Actuator	Description
Rotary Operated		
ZCKG00	—	Die Cast Zinc
Plunger Operated		
ZCKD02	Roller Plunger	Plunger Operated
ZCKD06	Whisker	
ZCKD10	Rod Plunger	
ZCKD21	Delrin Roller Lever On Plunger	
ZCKD23	Steel Roller Lever On Plunger	

Pneumatic Switch Bodies with Rotary Heads



PXCK21100

Part Number	Actuator	Type of Switching*
PXCK21100	Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK22100		NP

Operating Levers for Rotary Heads



ZCKY81



ZCKY91

For Use With Rotary Head ZCKG00		
Part Number	Actuator	Description
ZCKY51	Steel 1/8" Square	Rod Levers
ZCKY52	Fiberglass 1/8" Dia. Round	
ZCKY81	Plastic Spring Rod Lever	
ZCKY91	Metal Spring Rod Lever	
ZCKY11	Delrin Roller Lever	Roller Levers
ZCKY13	Steel Roller Lever	
ZCKY41	Adjust. Delrin Roller Lever	
ZCKY43	Adjust. Steel Roller Lever	

Specifications

Air Quality –

Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (NI/min) 7.4 (210)

Materials –

Body Zinc Alloy

Poppets Polyurethane

Seals Nitrile (Buna N)

Maximal Operating Frequency 5 Hz

Nominal Bore Ø 1/8" (3 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz 10 Million

Operating Positions All Positions

Operating Pressure 40 to 115 PSIG (3 to 8 bar)

Ports –

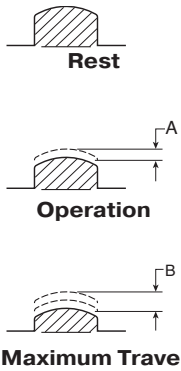
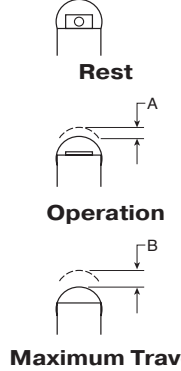
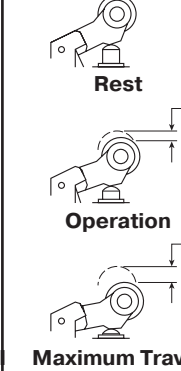
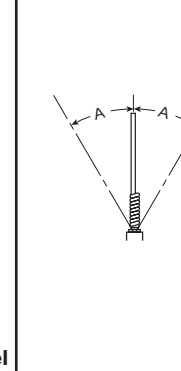
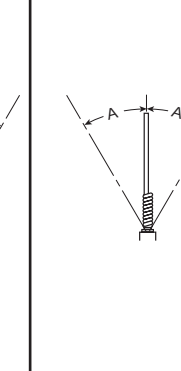
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube

Temperature

Operating 32°F to 122°F (0°C to + 50°C)

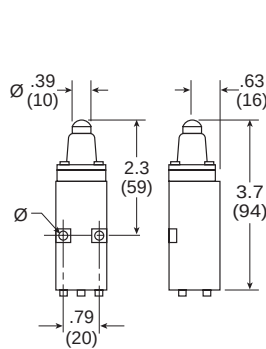
Storage -22°F to 140°F (-30°C to +60°C)

Operator Specifications

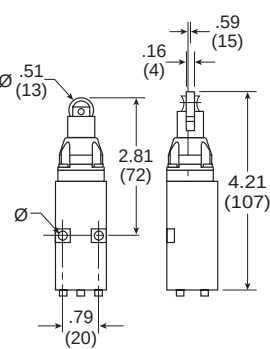
	PXCK2••01	PXCK2••02	PXCK2••03	PXCK2••06	PXCK2••00 + Actuator
Differential Angle	—	—	—	12°	3°
Differential Travel	.008" (0.2 mm)	.008" (0.2 mm)	.008" (0.2 mm)		
Maximum Angle of Travel	—	—	—	—	80°
Maximum Travel (B) at 90 PSIG (6 bar)	.020" (0.5 mm)	.020" (0.5 mm)	.020" (0.5 mm)	—	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.087" (2.2 mm)	.087" (2.2 mm)	.102" (2.6 mm)	—	—
Minimum Operating Force at 90 PSI (6 bar)	3.6 lbf (16N)	4.5 lbf (20N)	3.4 lbf (15N)	—	—
Minimum Operating Torque at 90 PSI (6 bar)	—	—	—	17.0 oz in (120mNm)	29.8 oz in (210mNm)
Operating Angle	—	—	—	35°	31° (Minimum Lever Travel Including Pre-Travel Required For Operation)
Operating Diagram					

Dimensions

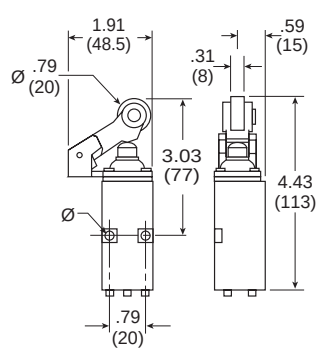
PXCK21101, PXCK22101



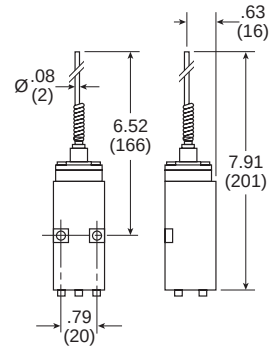
PXCK21102, PXCK22102



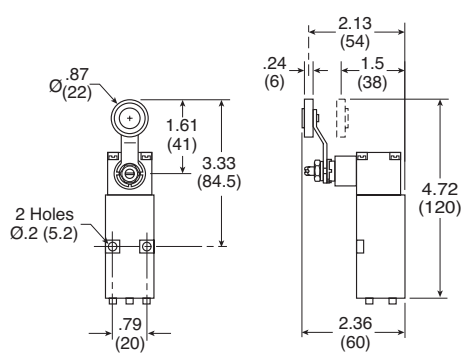
PXCK21121, PXCK22121



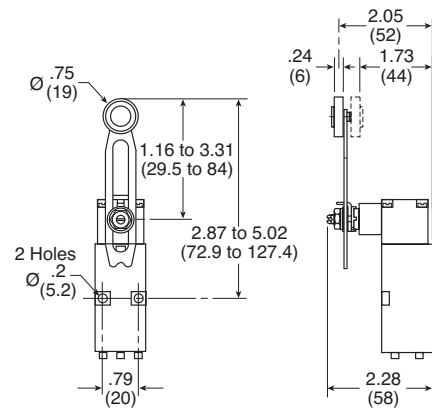
PXCK21106, PXCK22106



PXCK2110531, PXCK2210531

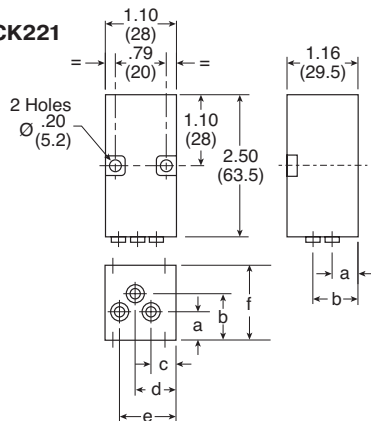


PXCK2110541, PXCK2210541



Pneumatic Switch Bodies

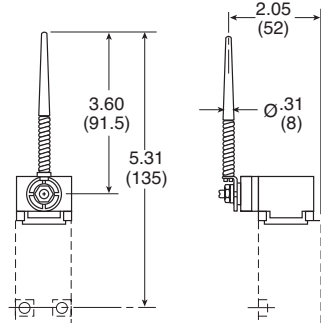
PXCK211, PXCK221



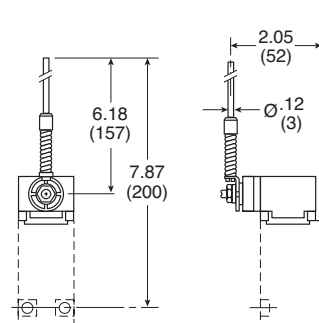
	inch	mm
a	.39	10
b	.77	19.5
c	.35	9
d	.61	15.5
e	.87	22
r	1.66	29.5

Rotary Heads with Operating Levers

ZCKY81



ZCKY91



Switch Bodies Only



PXCJ117

Part Number	Type of Switching*
PXCJ117	NNP
PXCJ127	NP

Switch Bodies with Rotary Head



PXCJ11701

Part Number	Direction of Actuation	Type of Switching*
PXCJ11701	Right & Left, Spring Return	NNP
PXCJ11705	Right or Left, Spring Return	
PXCJ12701	Right & Left, Spring Return	NP
PXCJ12705	Right or Left, Spring Return	

Operating Levers for Rotary Heads



ZC2JY11



ZC2JY31



ZC2JY81



ZC2JY91

Die Cast Zinc. For Use With PXCJ Switch Bodies		
Part Number	Operator	Description
ZC2JY11	Delrin Roller	Spring Return
ZC2JY13	Steel Roller	
ZC2JY21	Offset Delrin Roller	
ZC2JY81	Plastic Spring Rod	
ZC2JY91	Metal Spring Rod	
ZC2JY31	Delrin Roller	Adjustable Roller
ZC2JY41	Offset Delrin Roller	
ZC2JY51		Rod Lever
ZC2JY71	Single Track, Delrin Roller	Fork Lever
ZC2JY61	Double Track, Delrin Rollers	

NNP: Normally Non-Passing

NP: Normally Passing

Top Plunger & Rotary Operating Heads



ZC2JE70



ZC2JE01

Die Cast Zinc. For Use With PXCJ Switch Bodies		
Top Plunger Type		
Part Number	Operation	Description
ZC2JE61	Top Push	Spring Return
ZC2JE62	Top Roller Push	
ZC2JE63	Side Push	
ZC2JE70	Cat's Whisker	
Rotary Type		
ZC2JE01	From Left & Right	Spring Return
ZC2JE02	Counterclockwise From Right	
ZC2JE03	Clockwise From Left	
ZC2JE05	From Left or Right	
ZC2JE09	Maintained Positions	

Specifications

Air Quality –

Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (NI/min) 7.4 (210)

Materials –

Body Zinc Alloy
 Poppets Polyurethane
 Seals Nitrile (Buna N)

Maximal Operating Frequency 5 Hz

Nominal Bore Ø 1/8" (3 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz 10 Million

Operating Positions All Positions

Operating Pressure 40 to 115 PSIG (3 to 8 bar)

Ports 1/8" NPT

Temperature –

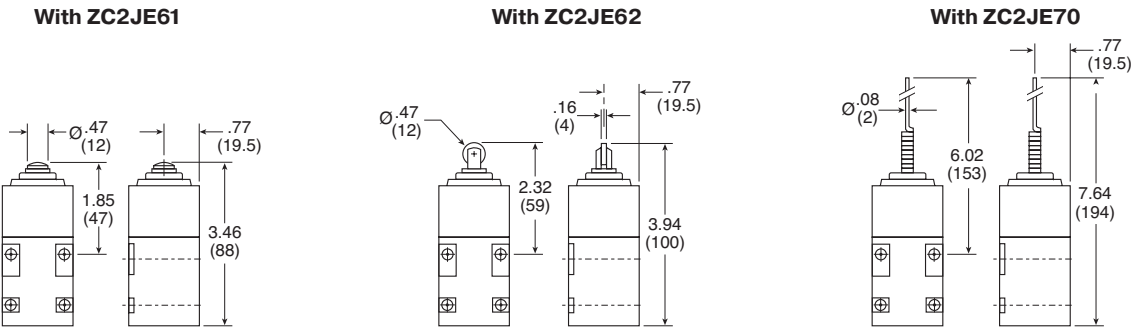
Operating 32°F to 122°F (0°C to + 50°C)
 Storage -22°F to 140°F (-30°C to +60°C)

	ZC2JE61	ZC2JE62	ZC2JE70	ZC2JE01	ZC2JE05
Differential Angle	—	5°	5°	2°	2°
Differential Travel at 90 PSI (6 bar)	.008" (0.2 mm)	—	—	—	—
Maximum Angle of Travel	—	—	—	75°	75°
Maximum Travel (B) at 90 PSIG (6 bar)	228" (5.8 mm)	—	—	—	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.059" (1.5 mm)	—	—	—	—
Minimum Operating Force at 90 PSI (6 bar)	3.6 lbf (16N)	—	—	—	—
Minimum Operating Torque at 90 PSI (6 bar)	7.1 oz in (50Nm)	35.4 oz in (250Nm)	35.4 oz in (250Nm)	35.4 oz in (250Nm)	—
Operating Angle (Minimum Lever Travel Including Pre-Travel Required For Operation)	—	23°	23°	12°	12°
Operating Diagram	Rest Operation Maximum Travel				

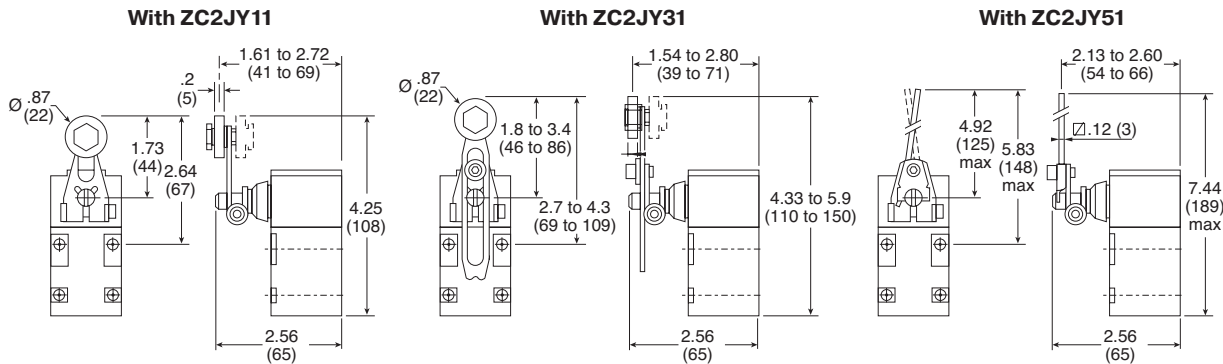
G

Airline Accessories

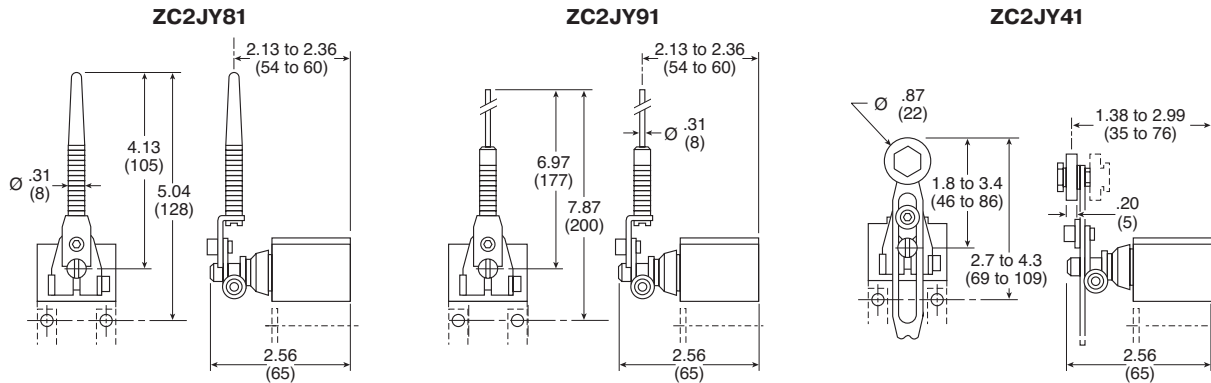
Switch Body With Plunger Heads



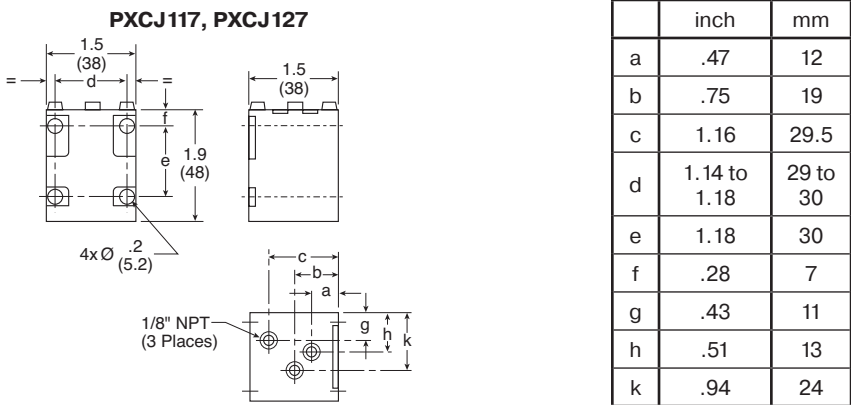
Switch Body With Rotary Heads and Operating Levers



Rotary Heads With Operating Levers



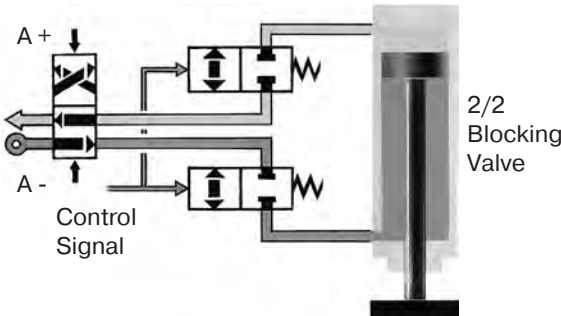
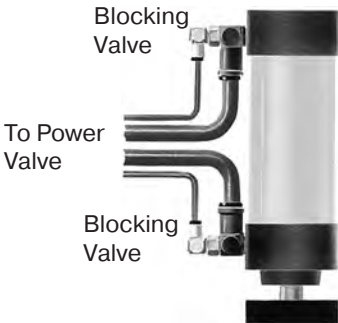
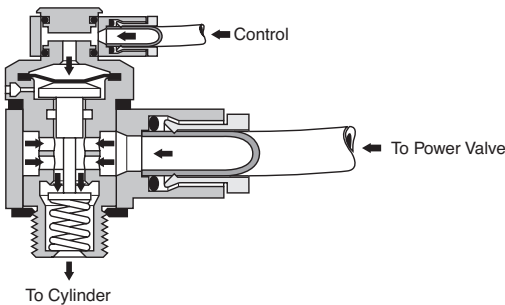
Pneumatic Switch Bodies



Blocking Valves

The blocking valve is a single acting spring return 2/2 valve in a fitting format. The device requires a pneumatic pilot signal to open, which allows free flow of air, gas or liquid to pass. As long as a pilot signal is present, the device will remain open. When the pilot signal is removed, the internal spring will close the blocking valve, bubble tight. The blocking valve is oil serviceable and rated to 150 PSI.

These devices have two primary design uses: (1) to prevent unwanted gravity induced motion in cylinders during shut down procedures or during periods of lost supply pressure and (2) freezing the cylinder position by using a blocking valve at each end of the cylinder. Application needs such as tool or work piece protection, horizontal indexing or inspection stops are often satisfied by these devices.



PWBA General Characteristics

Operating Pressure	0 to 150 PSI
Permissible Fluids	Air or neutral gas, 50 µm filtration, lubricated or not
Operating Temperature	5° to 140°F (-15° to 60°C)
Storage Temperature	-40° to 160°F (-40° to 70°C)
Flow	See page G31
Mechanical Life	10 Million
Maximum Operating Frequency	10Hz
Material: Body	Zinc alloy
Mounting Screw	Brass
Maximum Mounting Torque: 10-32 UNF and M5	88 inch pounds
1/8"	70 inch pounds
1/4"	105 inch pounds
3/8"	265 inch pounds
1/2"	310 inch pounds
Adjustment	N/A
Adjustment Locking	N/A

Piloting and De-Piloting Pressure

Blocking Valve Sizes	Pilot with Operating Pressure of:			
	30 PSI	60 PSI	90 PSI	120 PSI
1/8" BSP or NPT	33 PSI	40 PSI	45 PSI	50 PSI
1/4" BSP or NPT	33 PSI	40 PSI	45 PSI	50 PSI
3/8" BSP or NPT	35 PSI	40 PSI	45 PSI	50 PSI
1/2" BSP or NPT	45 PSI	50 PSI	55 PSI	60 PSI
Blocking Valve Sizes	Depilot with Operating Pressure of:			
	30 PSI	60 PSI	90 PSI	120 PSI
1/8" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
1/4" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
3/8" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
1/2" BSP or NPT	25 PSI	30 PSI	34 PSI	40 PSI

For Cylinder Mounting
(Can also be mounted in Threshold Sensor Banjo)

With Instant Tube Fittings



PWBA3469

Symbol	Connection for Pilot	BSP			Connection for Pilot	NPT		
		Cylinder Port Thread (Male)	Connection for Tube	Catalog Number		Cylinder Port Thread (Male)	Connection for Tube	Catalog Number
	4mm Tube	1/8"	6mm	PWBA1468	5/32" Tube	1/8"	1/4"	PWBA3468
		1/4"	6mm	PWBA1469		1/4"	1/4"	PWBA3469
		1/4"	8mm	PWBA1489				
		3/8"	8mm	PWBA1483		3/8"	3/8"	PWBA3493
		3/8"	10mm	PWBA1493				
		1/2"	12mm	PWBA1412		1/2"	1/2"	PWBA3412

With Threaded Connections and Tube Pilot Port



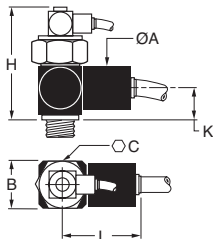
PWBA3833

Symbol	Connection for Pilot	BSP			Connection for Pilot	NPT		
		Cylinder Port Thread (Male)	Connection from Valve (Female)	Catalog Number		Cylinder Port Thread (Male)	Connection from Valve (Female)	Catalog Number
	4mm Tube	1/8"	1/4"	PWBA1898	5/32" * Tube	1/8"	1/8"	PWBA3888
		1/4"	1/4"	PWBA1899		1/4"	1/4"	PWBA3899
		3/8"	3/8"	PWBA1833		3/8"	3/8"	PWBA3833
	M5 Female	1/2"	1/2"	PWBA1822	5/32" * Tube	1/2"	1/2"	PWBA3822

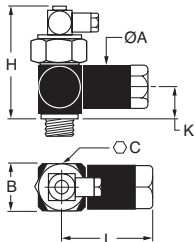
* Instant fitting

With Threaded Connections and Threaded Pilot Port

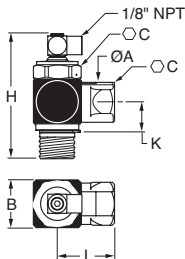
PWBA14/34



PWBA18/38



PWBA38



Connection for Pilot	NPT		
	Cylinder Port Thread (Male)	Connection from Valve	Catalog Number
1/8" pipe	1/8"	1/8"	PWBA38887
	1/4"	1/4"	PWBA38997
	3/8"	3/8"	PWBA38337
	1/2"	1/2"	PWBA38227

Dimensions: Inches (mm)

	Flow*	ØA	B	C	K	H	L
PWBA1468/3468	14.8	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.32" (59)	1.54" (39)
PWBA1469/3469 PWBA1489	19.4	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.09" (53)	1.54" (39)
PWBA1483 PWBA1493/3493	45.9	1.06" (27)	1.10" (28)	0.94" (24)	0.55" (14)	2.09" (53)	1.98" (50)
PWBA1412/3412	81.2	1.22" (31)	1.30" (33)	1.30" (33)	0.94" (24)	2.59" (66)	2.59" (66)
PWBA1898/3888	14.8	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.32" (59)	1.71" (43.5)
PWBA1899/3899	19.4	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.09" (53)	1.71" (43.5)
PWBA1833/3833	45.9	1.06" (27)	1.10" (28)	0.94" (24)	0.55" (14)	2.09" (53)	2.18" (55)
PWBA1822/3822	81.2	1.22" (31)	1.30" (33)	1.30" (33)	0.94" (24)	2.59" (66)	2.47" (63)
PWBA38887	14.8	0.75" (19)	0.87" (22)	0.83" (21)	0.67" (17)	2.20" (56)	1.73" (44)
PWBA38997	19.4	0.75" (19)	0.87" (22)	0.83" (21)	0.67" (17)	2.20" (56)	1.73" (44)
PWBA38337	45.9	1.06" (27)	1.18" (30)	1.06" (27)	0.91" (23)	2.64" (67)	1.42" (36)
PWBA38227	81.2	1.06" (27)	1.18" (30)	1.06" (27)	0.91" (23)	2.64" (67)	1.42" (36)

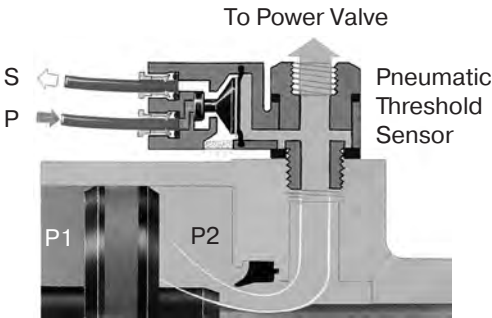
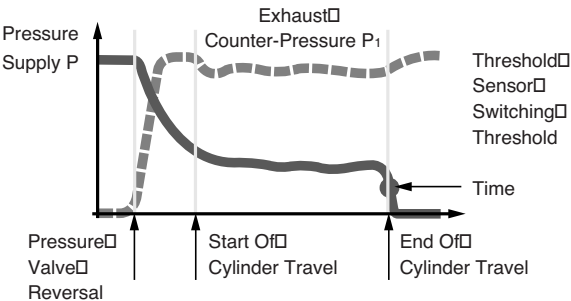
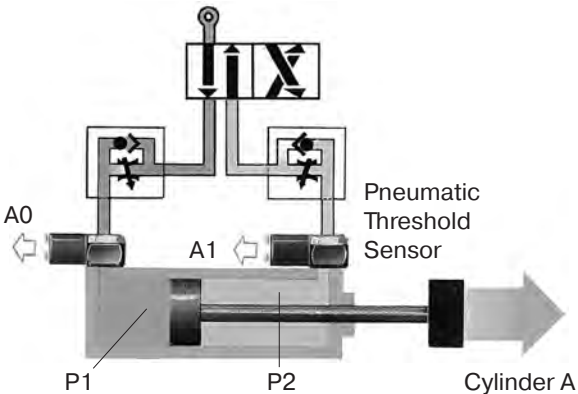
*SCFM at 90 PSI

Threshold Sensors – PWS

General Description

The plug-in threshold sensors provide feedback information on pneumatic cylinder status in one of three possible outputs . . . pneumatic, electric, or electronic. Mounted into the cylinder port, these devices monitor the back pressure of the cylinder's exhaust. When the cylinder's piston stops, the back pressure rapidly drops and the threshold sensor provides the desired output. Ideal for variable stroke applications such as robotics where other sensor type devices such as limit switches are impractical, these devices provide a signal whenever the cylinder stops motion.

The threshold sensor consists of two complementary sub assemblies (1) the banjo fitting and (2) the plug-in sensor element. In all cases, the sensor is easily plugged into the banjo fitting and locked in place with a spring clip. The banjo fitting is designed to accept (piggy backed) other functional fittings such as flow controls or blocking valves. Simply select the sensor based on the type feedback signal that best fits the application.

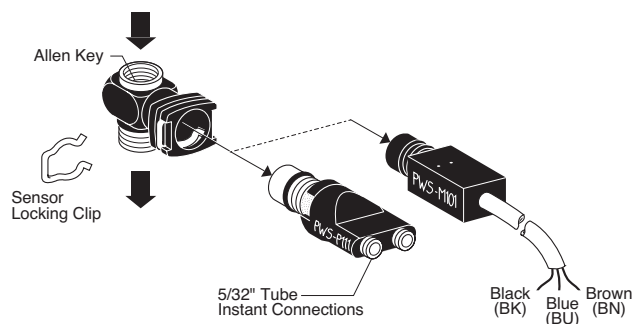


PWS General Characteristics

Operating Pressure	0 to 150 PSI
Permissible Fluids	Air or neutral gas, 50 µm filtration, lubricated or not
Operating Temperature	5° to 140°F (-15° to 60°C)
Storage Temperature	-40° to 160°F (-40° to 70°C)
Flow	N/A
Mechanical Life	10 Million
Maximum Operating Frequency	10Hz
Material: Body	Thermoplastic
Mounting Screw	Brass
Maximum Mounting Torque: 10-32 UNF and M5	88 inch pounds
1/8"	70 inch pounds
1/4"	105 inch pounds
3/8"	265 inch pounds
1/2"	310 inch pounds
Adjustment	N/A
Adjustment Locking	N/A

Piloting and De-Piloting Pressure

Threshold Sensors	Pilot with Operating Pressure of 90 PSI	Depilot with Operating Pressure of 90 PSI
PWSP111	64 PSI	6 PSI
PWSM1012	15 PSI	9 PSI
PWSE101 and PWSE111	10 PSI	7 PSI



Model Selection

Banjo Sockets (with Sensor Clip)		
Port Size	Model Number	Wrench
10-32	PWSB1557	5/16" Hex
1/8"	PWSB1887	3/16" Allen
1/4"	PWSB1997	5/16" Allen
3/8"	PWSB1337	3/8" Allen
1/2"	PWSB1227	1/2" Allen

Plug-in Sensors		
Output	Model Number	Connection
Pneumatic	PWSP111	5/32" push-in
Electrical	PWSM1012	3-wire cable (6 ft)

Mounting

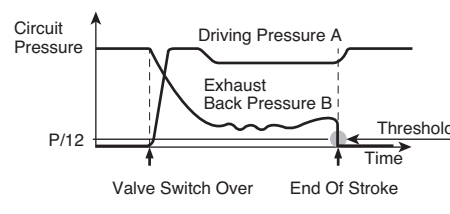
Banjo fittings in 10-32 to 1/2" pipe sizes are designed to be installed directly into actuator ports (up to 5" bore cylinders). The banjo fitting can accommodate other functional fittings and components such as right angle flow control valves or blocking valves. Banjo fittings screw into actuators using an Allen wrench or 5/16" hex head wrench for 10-32 size. Electrical or pneumatic feedback element snaps into place using a locking clip.

Operation

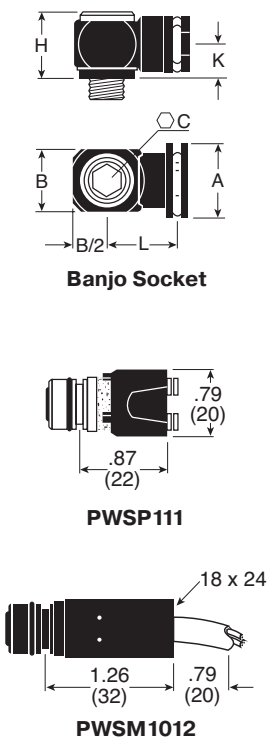
Pneumatic sensors have a continuous pressure signal applied to the sensor device. Electrical sensors have a continuous electrical signal applied to the sensor device. The threshold sensor assembly mounted directly into the cylinder Port provides an output signal S, which can be pneumatic or electrical, when the falling back pressure in the exhausting chamber of the cylinder reaches the operating threshold (approximately 6-9 PSIG). (The device is a normally passing device. The output is only on when there is nearly zero pressure at the cylinder.)

Application

The threshold sensor provides electrical or pneumatic feedback information on pneumatic (air) cylinder status. These devices monitor the back pressure of the cylinder's exhausting chamber. When the cylinder stops, the back pressure drops and the threshold sensor provides the desired output. Ideal for variable stroke applications. The banjo fitting and the feedback element are two separate subassemblies, giving the user flexibility between electrical and pneumatic outputs as feedback.



Dimensions



Specifications

Operating Pressure	0 to 150 PSIG (0 to 10 bar)
Temperature Range	5°F to 140°F (-15°C to 60°C)

CAUTION: If it is possible that the ambient temperature may fall below freezing, the medium must be moisture free to prevent internal damage or unpredictable behavior.

Maximum Operating Frequency	10 Hz
Pilot Pressure (PWSP111)	>64 PSIG (4.4 bar)
Threshold Pressure	6 to 9 PSIG (.4 to .6 bar)
Output Flow Rate (PWSP111)	3 SCFM at 90 PSIG
Current Rating (PWSM1012) –	5 VA, 250 VAC 5W, 48 VAC

Materials –	
Body	Thermoplastic
Mounting Screw & Threads	Brass

Life Expectancy –
10 million cycles with dry air at 90 PSIG, 68°F, and 1 Hz operating frequency

Voltage Range (PWSM1012) –	
	12 - 240 VAC 12 - 48 VDC

Model	A	B	C	H	K	L
PWSB1557	.98 (25)	.43 (11)	5/16" Hex	.79 (20)	.40 (10)	.67 (17)
PWSB1887	.98" (25)	.63 (16)	3/16" Allen	.71 (18)	.40 (10)	.79 (20)
PWSB1997	.98 (25)	.83 (21)	5/16" Allen	.71 (18)	.40 (10)	.87 (22)
PWSB1337	.98 (25)	1.10 (28)	3/8" Allen	.79 (20)	.47 (12)	.98 (25)
PWSB1227	.98 (25)	1.30 (33)	1/2" Allen	.93 (24)	.55 (14)	1.02 (26)

inches
(mm)

Universal Description	Electrical		Fluid Power		
	Function	Symbol	Function	Symbol	
Normally Non-Passing (NNP)	Normally Open (N.O.)		Normally Closed (N.C.)	2-Way 	3-Way
Normally Passing (NP)	Normally Closed (N.C.)		Normally Open (N.O.)		



LV & EZ Series

“LV” & “EZ” Series.....	G36	“EZ” Series	
“LV” Series		Basic Features	G41
Basic Features	G37	Applications	G41
Applications	G37	Mounting	G41
Mounting	G37	Dimensions.....	G41
Ordering Information	G38	Operation	G42
Dimensions		Ordering Information	G42
Compact	G39	Flow	G43
Standard	G39	“LV” & “EZ” Series Accessories	G43
High Flow	G39		
Stainless Steel	G40		

Bold Items are Most Popular.

Parker is protecting your most valuable assets...



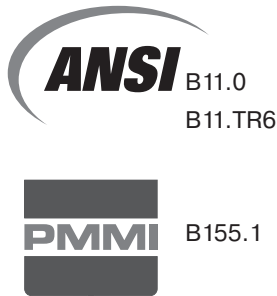
Standard 190.147

- This applies to the servicing and maintenance of a machine or equipment.
- Any new, replacement, repair, or renovation to a machine must include an energy isolation device that can accept a lock out device.
- Lock out devices should not be used for any other purposes
- Verification of energy isolation is required



Standard Z244

- This applies to all machines
- Lockout / tagout is the primary method of hazardous energy control
- Machines shall be designed, manufactured, supplied, and installed with energy isolating devices



- B11.0 applies to a broad range of machines, B11.TR6 is specific to machine tools, and B155.1 is specific to packaging and converting machines
- Energy isolating device shall:
 - Be capable of being locked in the OFF position only
 - Be easy to operate
 - Have an exhaust port equal or greater than its supply port
 - Have a pressure indicator that is visible to an operator to verify line is relieved of pressure

...By offering the best in pneumatic safety for machine maintenance:



Traditional Ball Valve

- Not a dedicated energy isolation device** ✗
- Not a full exhaust port ✗
- No verification of line exhaust ✗
- Can be locked ON ✗
- Not easily identifiable ✗



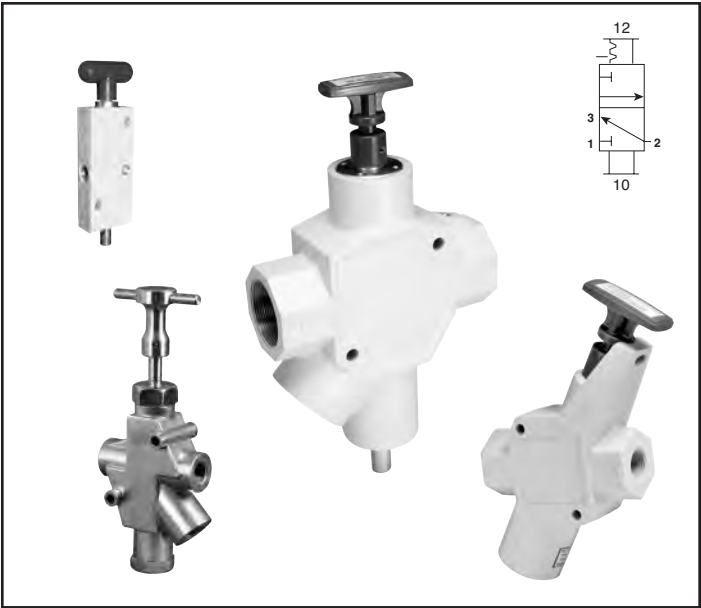
Wilkerson Solution

- ✓ **Dedicated energy isolation device**
- ✓ Full exhaust port
- ✓ Verification of line exhaust
- ✓ Only lockable in OFF position
- ✓ Easily identifiable

LV Series

Features

- Lockout valves are installed in pneumatic drop legs, or individual pneumatic control lines. In accordance with OSHA procedures, lockout valves are used during maintenance and service procedures of pneumatically (air) operated equipment.
- Used for compliance with OSHA 29 CFR part 1910
 - 1/4" to 2" pipe sizes. NPT or BSPP
 - Yellow cast aluminum body with red handle or stainless steel (NACE MR0175 / ISO 15156)
 - Inline or surface mountable
 - Built in port for pressure verification to meet ANSI B11 and PMMI B155 requirements
 - Fluorocarbon slipper seals for easy shifting, even after long periods of inactivity



Material Specifications

Description	LV	LVSS
Body:	Cast aluminum alloy	Stainless steel
Handle:	Plastic	Stainless steel
Spool:	Aluminum	Stainless steel
Seals:	Carboxylated nitrile	Fluorocarbon
Detent spring:	Stainless steel	316 Stainless steel
Grease:	Magnalube G†	Magnalube G†

† Trademark Magnalube

Operating Information

Operating pressure:	LV	LVSS
Compact	15 to 145 PSIG	–
Standard	15 to 300 PSIG	15 to 300 PSIG
High flow	15 to 300 PSIG	–
Operating temperature:	40°F to 175°F	30°F to 175°F
Operating media:	Clean, dry, compressed air (5 micron)	

Applications

Lockout valves are installed in pneumatic drop legs, or individual pneumatic control lines (see Figure 1). In accordance with OSHA procedures, lockout valves are used during maintenance and service procedures of pneumatically (air) operated equipment. Prior to servicing, the red handle is pressed inward, blocking pressure and relieving all downstream air pressure. A padlock is installed through the locking hasp, Preventing accidental actuation during the maintenance procedure. Following maintenance, the padlock is removed and the red handle is pulled outward, returning air pressure to the system.

(For complete Lockout / Tagout procedures, consult OSHA Standard 29 CFR Part 1910 in U.S. Federal Register/Vol. 54 No. 169, Friday, September 1, 1989 / Page 36644.)

Mounting

Valves can be inline mounted or surface mounted using the two mounting holes provided in the valve body. Mount valves in plain view with the handle oriented for accessibility.

Placement of Lockout Device

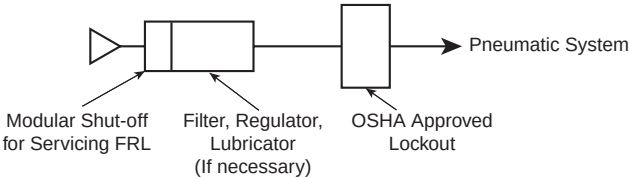


Figure 1.

Compact

	Port in / out	Port exhaust	Wt (lb)	Part number *
	1/4	3/8	0.9	LV2N3B
	3/8	3/8	0.9	LV3N3B

Standard

	Port in / out	Port exhaust	Wt (lb)	Part number *
	3/8	3/4	2.0	LV3N6B
	1/2	3/4	2.0	LV4N6B
	3/4	3/4	2.0	LV6N6B
	3/4	1-1/4	3.2	LV6NAB
	1	1-1/4	3.2	LV8NAB
	1-1/4	1-1/4	3.2	LVANAB

High Flow

	Port in / out	Port exhaust	Wt (lb)	Part number *
	1-1/2	2	8.2	LVBNCB
	2	2	8.2	LVCNCB

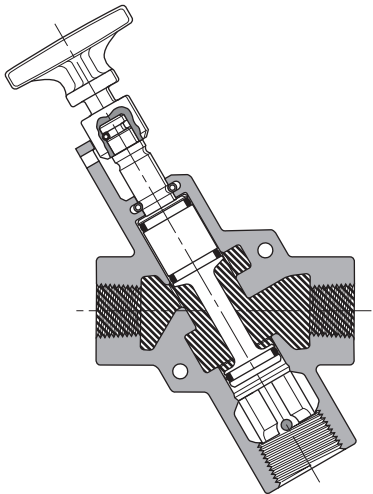
* For BSPP ports, change 4th digit from "N" to "B"

Stainless Steel

	Port in / out	Port exhaust	Wt (lb)	Part number *
	1/4	1/4	3.8	LV2N2BSS
	3/8	1/2	6.0	LV3N4BSS
	1/2	1/2	6.0	LV4N4BSS
	3/4	1	13	LV6N8BSS
	1	1	13	LV8N8BSS
	1-1/2	2	35	LVBNCBSS
	2	2	35	LVCNCBSS

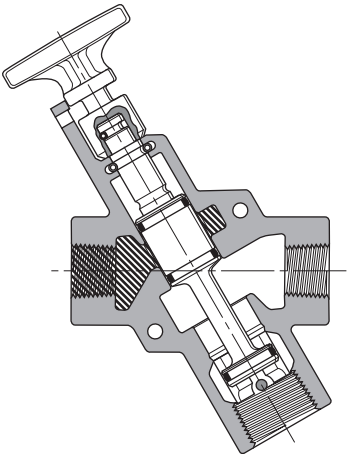
Operation

Normal Machine Operation – Valve Open
With the handle pulled outward. Inlet Port 1 is open to outlet Port 2. Exhaust Port 3 is blocked.



LV Series Shown Open

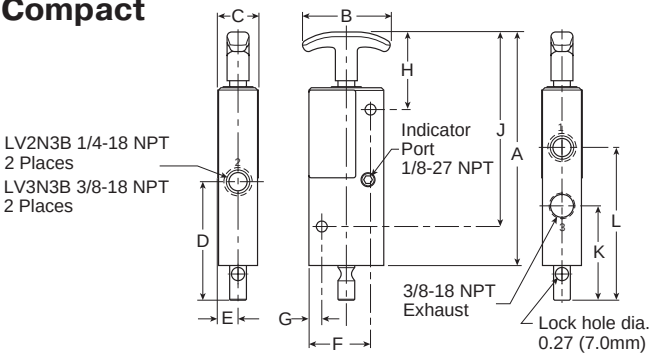
Lockout Operation – Valve Closed
With the handle pushed inward. Inlet Port 1 is blocked. Outlet Port 2 is open to Exhaust Port 3.



LV Series Shown Closed

LV Dimensions

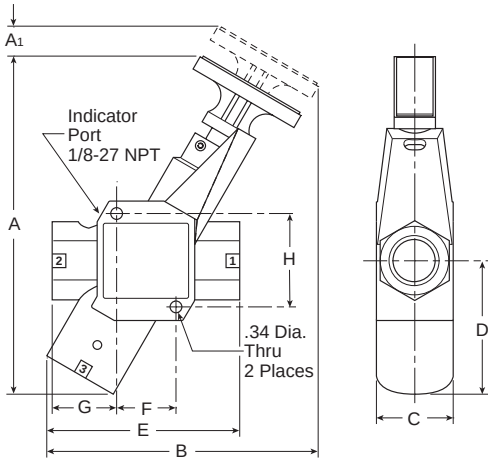
Compact



Compact LV Series, 3/8" Exhaust Ports Inches (mm)

A	B	C	D	E	F
6.50 (165)	2.25 (57)	1.05 (27)	3.04 (77)	.51 (13)	1.58 (40)
G	H	J	K	L	
.33 (8)	1.99 (51)	4.99 (127)	2.42 (62)	3.92 (100)	

Standard



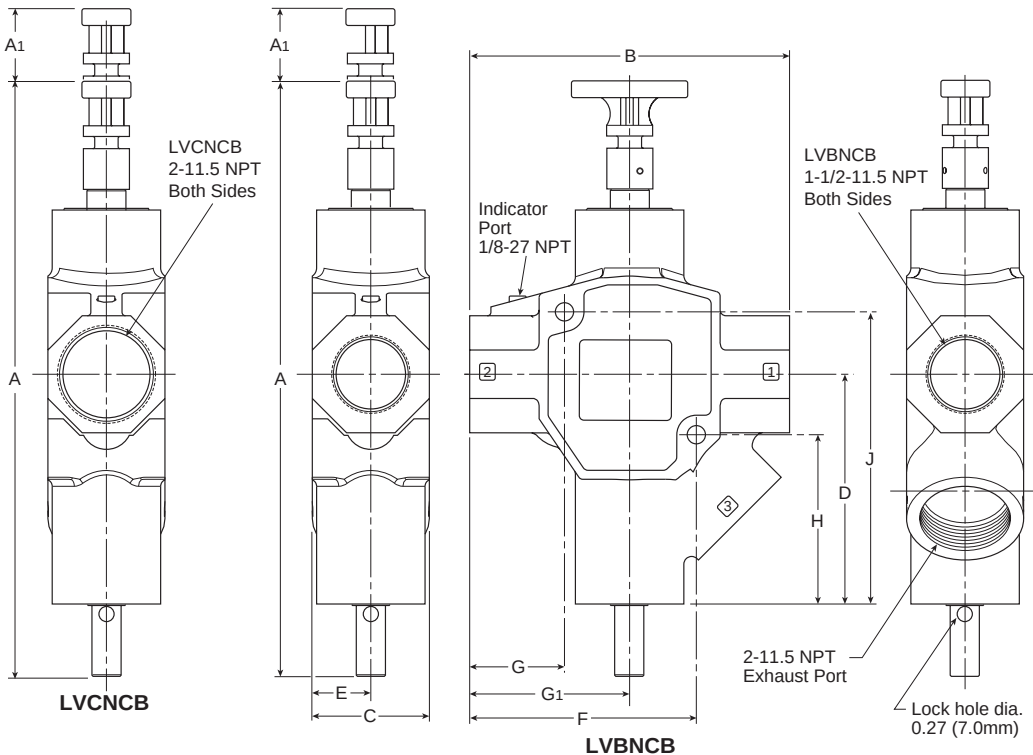
Standard LV Series, 3/4" Exhaust Port Inches (mm)

A	A1	B	C	D	E
8.32 (211)	0.64 (16)	6.60 (168)	2.00 (51)	3.06 (78)	4.24 (108)
F	G	H			
1.32 (111)	1.56 (40)	2.21 (56)			

Standard LV Series, 1-1/4" Exhaust Port Inches (mm)

A	A1	B	C	D	E
9.91 (252)	0.85 (22)	7.95 (202)	2.25 (57)	3.91 (99)	5.65 (144)
F	G	H			
1.74 (44)	1.89 (48)	2.74 (70)			

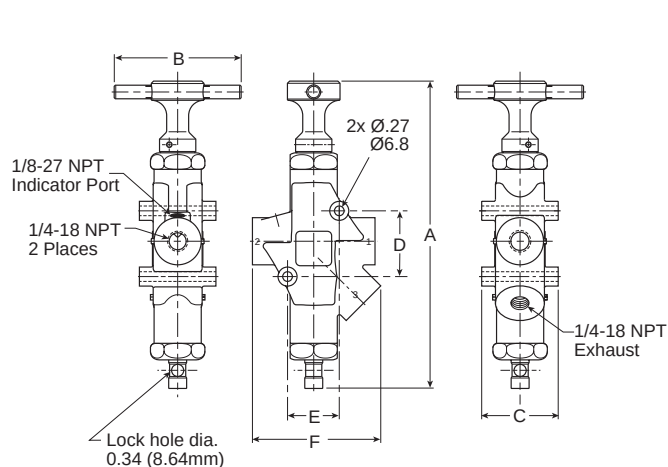
High Flow



High Flow LV Series, 2" Exhaust Ports Inches (mm)

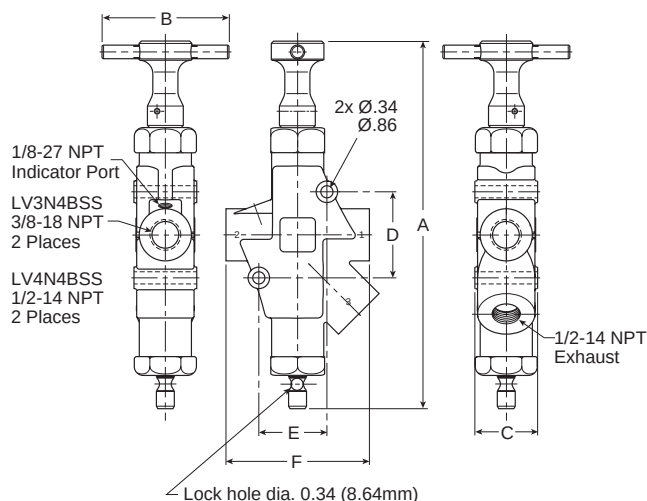
A	A1
14.82 (376)	1.87 (47)
B	C
8.20 (208)	3.00 (76)
D	E
5.89 (150)	1.50 (38)
F	G
5.81 (148)	2.43 (62)
G1	H
4.10 (104)	4.34 (110)
J	
7.49 (190)	

Stainless Steel Dimensions



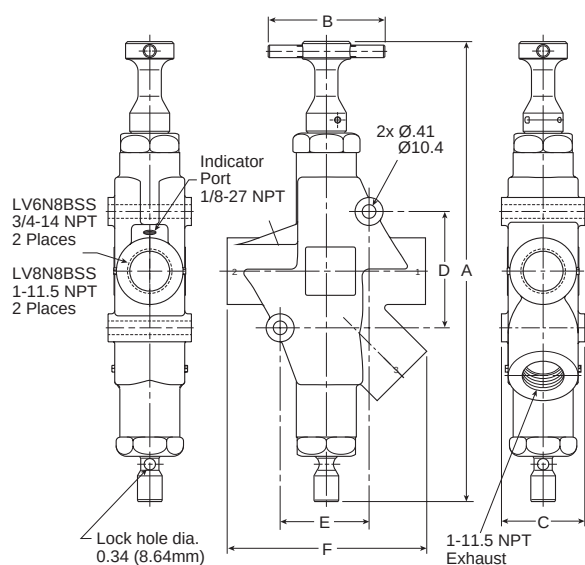
Stainless Steel LV Series, 1/4" Exhaust Port
inches (mm)

A	B	C	D	E	F
8.47 (215)	3.50 (89)	2.11 (54)	1.81 (46)	1.43 (36)	3.54 (90)



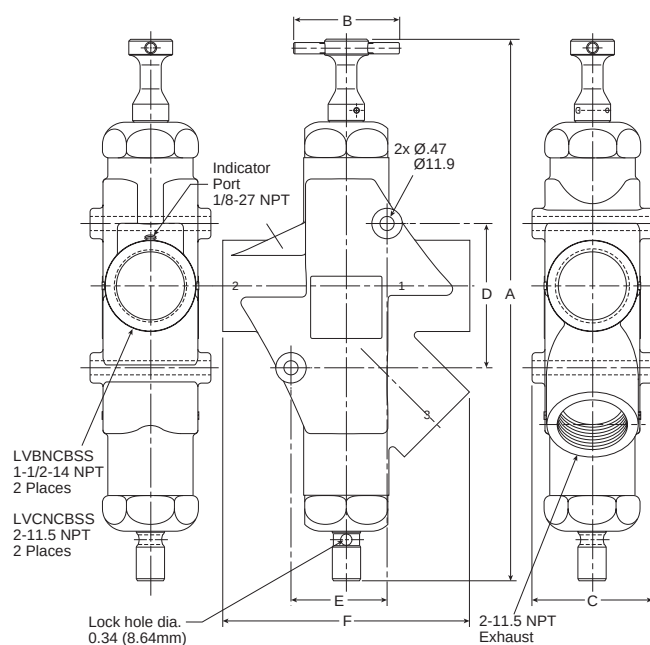
Stainless Steel LV Series, 1/2" Exhaust Port
inches (mm)

A	B	C	D	E	F
10.24 (260)	3.50 (89)	1.75 (45)	2.40 (61)	1.90 (48)	4.00 (102)



Stainless Steel LV Series, 1" Exhaust Port
inches (mm)

A	B	C	D	E	F
13.80 (351)	3.50 (89)	2.50 (64)	3.49 (89)	2.67 (68)	5.99 (152)



Stainless Steel LV Series, 2" Exhaust Port
inches (mm)

A	B	C	D	E	F
17.92 (455)	3.50 (89)	4.00 (102)	4.77 (121)	3.18 (81)	8.16 (207)

EZ Series

Features

- Combines lockout and soft-start functions in a single unit
- Used in systems for compliance with OSHA standard 29 CFR part 1910
- 3/8 Inch to 1-1/4 inch pipe sizes
- Cv's from 3.7 To 13.7
- 3/4 and 1-1/4 inch: exhaust ports available
- Exhaust port threaded for installation of silencer or line for remote exhausting
- Inline or surface mountable
- Yellow cast aluminum body with red handle. Blue dot on body indicates EZ Series valve
- Fluorocarbon slipper seals for easy shifting, even after long periods of inactivity

Material Specifications

Description	EZ
Body:	Cast aluminum alloy
Handle:	Plastic
Spool:	Aluminum
Seals:	Carboxylated nitrile
Detent spring:	Stainless steel
Grease:	Magnalube G [†]

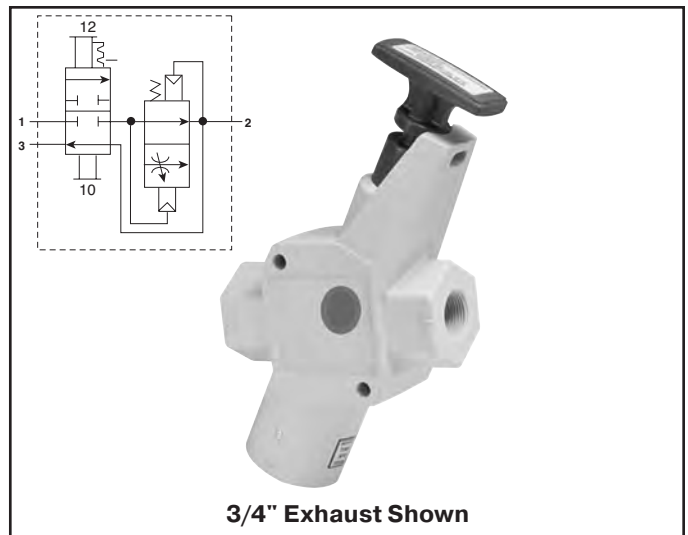
[†] Trademark Magnalube

Applications

EZ valves are installed in pneumatic drop legs, or individual pneumatic control lines (see Figure 1). In accordance with OSHA procedures, EZ valves are used during maintenance and service procedures of pneumatically (air) operated equipment. Prior to servicing, the red handle is pressed inward, blocking pressure and relieving all downstream air pressure. A padlock is installed through the locking hasp, preventing accidental actuation during the maintenance procedure. Following maintenance, the padlock is removed and the red handle is pulled outward, gradually returning air pressure to the system. (For complete Lockout / Tagout procedures, consult OSHA Standard 29 CFR Part 1910 in U.S. Federal Register/Vol. 54 No. 169, Friday, September 1, 1989 / Page 36644.)

Mounting

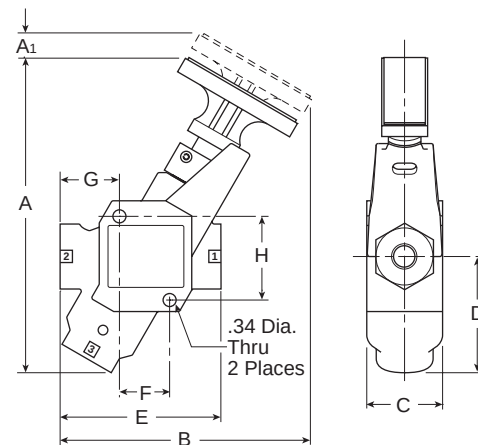
Valves can be inline mounted or surface mounted using the two 11/32" mounting holes provided in the valve body. Mount valves in plain view with the handle oriented for accessibility.



Operating Information

Operating pressure:	15 to 300 PSIG
Operating temperature:	40°F to 175°F
Operating media:	Clean, dry, compressed air (5 micron)

EZ Dimensions



EZ Series, 3/4" Exhaust Port Inches (mm)

A	A1	B	C	D	E
8.32 (211)	0.64 (16)	6.60 (168)	2.00 (51)	3.06 (78)	4.24 (108)
F	G	H			
1.32 (111)	1.56 (40)	2.21 (56)			

EZ Series, 1-1/4" Exhaust Port Inches (mm)

A	A1	B	C	D	E
9.91 (252)	0.85 (22)	7.95 (202)	2.25 (57)	3.91 (99)	5.65 (144)
F	G	H			
1.74 (44)	1.89 (48)	2.74 (70)			

EZ Series

	Port in / out	Port exhaust	Wt (lb)	Part Number *
	3/8	3/4	2.1	EZ03NB6
	1/2	3/4	2.1	EZ04NB6
	3/4	3/4	2.1	EZ06NB6
	3/4	1-1/4	3.2	EZ06NBA
	1	1-1/4	3.2	EZ08NBA
	1-1/4	1-1/4	3.2	EZ0ANBA

* For BSPP ports, change 5th digit from "N" to "B"

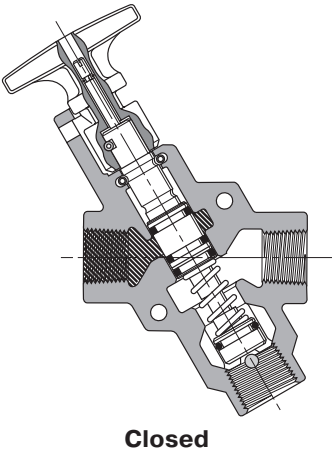
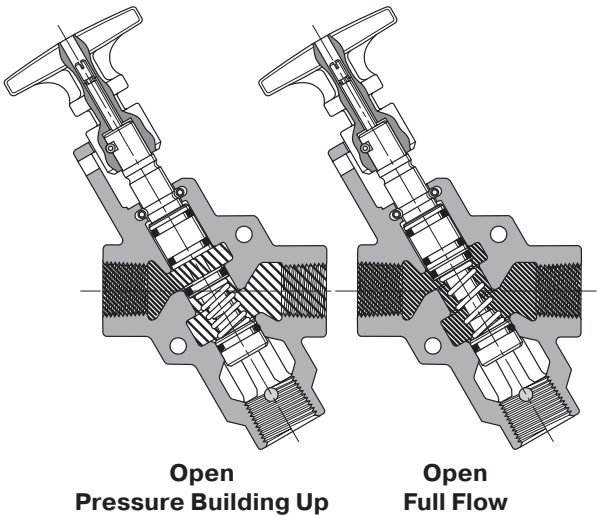
Operation

Normal Machine Operation – Valve Open

When the red handle is pulled outward, the adjustable needle valve (accessed through the top of the handle) setting determines the rate of pressure buildup. When downstream pressure reaches the full flow described in the specifications below, Inlet Port 1 is open to outlet Port 2. Exhaust Port 3 is blocked.

Lockout Operation – Valve Closed

When the red handle is pushed inward, the Inlet Port 1 is blocked. Downstream air is exhausted through Exhaust Port 3.



Flow

Compact LV Series Part Number	Port In / Out	scfm In / Out	Port Exh	scfm Exh
LV2N3B	1/4	41.8	3/8	40.7
LV3N3B	3/8	60.7	3/8	60.7

Standard LV Series Part Number	Port In / Out	scfm In / Out	Port Exh	scfm Exh
LV3N6B	3/8	107.7	3/4	81.1
LV4N6B	1/2	161.4	3/4	90.9
LV6N6B	3/4	187.7	3/4	93.2
LV6NAB	3/4	297.7	1-1/4	204
LV8NAB	1	375	1-1/4	216
LVANAB	1-1/4	436.4	1-1/4	221

High Flow LV Series Part Number	Port In / Out	scfm In / Out	Port Exh	scfm Exh
LVBNCB	1-1/2	761.4	2	1156
LVCNCB	2	918.2	2	1186

EZ Series Part Number	Port In / Out	scfm In / Out	Port Exh	scfm Exh
EZ03NB6	3/8	136.4	3/4	181
EZ04NB6	1/2	161.4	3/4	189
EZ06NB6	3/4	181.9	3/4	216
EZ06NBA	3/4	272.7	1-1/4	248
EZ08NBA	1	311.4	1-1/4	273
EZ0ANBA	1-1/4	368.2	1-1/4	291

Stainless LV Series Part Number	Port In / Out	scfm In / Out	Port Exh	scfm Exh
LV2N2BSS	1/4	48.6	1/4	47.2
LV3N4BSS	3/8	131.6	1/2	142
LV4N4BSS	1/2	124.8	1/2	142
LV6N8BSS	3/4	325	1	386
LV8N8BSS	1	325	1	386
LVBNCBSS	1-1/2	889	2	1023
LVCNCBSS	2	889	2	1023

NOTE: Exhaust flow rates calculated using inlet pressure 100 psig (6.7 bar), pressure drop 5 psi (0.34 bar), air temp 68°F (20°C), and 36% relative humidity.

LV / EZ Accessories

Corrosion resistant mufflers for harsh environments

	Port Size	Construction	Threads*	Dimensions In. (mm)		Part Number
				Width	Length	
	1/4	Stainless steel	Male	0.56 (14.2)	1.75 (44.5)	5500A2004
	1/2	Stainless steel	Male	0.87 (22.1)	2.75 (69.7)	5500A4004
	1	Stainless steel	Male	1.31 (33.3)	3.87 (98.3)	5500A6004
	2	Nickel plated	Male	2.37 (60.2)	5.50 (139.7)	5500A9004

* NPT threads only

High Flow Silencers

Part Number *	ES25MC	ES37MC	ES50MC	ES75MC	ES100MC	ES125MC	ES150MC	ES200MC
								
Pipe size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Flow (scfm)	129	219	549	893	1013	1486	1580	1580
Hex In. (mm)	0.63 (16)	1.00 (25)	1.00 (25)	1.62 (41)	1.62 (41)	—	—	2.99 (76)
Length In. (mm)	1.85 (47)	3.31 (84)	3.31 (84)	4.56 (116)	4.56 (116)	5.69 (145)	5.69 (145)	7.68 (195)

* NPT ports standard, for BSPT ports, add a "B" after the "S"

Pop-up Pressure Indicator



Brass – Part # 988A30 – Can be used on all LV or EZ series to provide visual verification of line exhaust

Stainless – Part# 1155H30 – Can be used on SS LV series to provide visual verification of line exhaust

Pressure Switch



- Part # PPS1-2C3-RHM (DIN 9.4mm connector)
- Part # PPS1-2C3-RWL (18" leads)
- Signal verification of line exhaust
- Field adjustable set point

Notes

G

Airline Accessories



Integrated Fittings

Product Index G46

Compact Flow Control Valves..... G47

Miniature Flow Control Valves G48

In-line Flow Control Valves G49-G50

Compact Metal Flow Control Valves..... G51

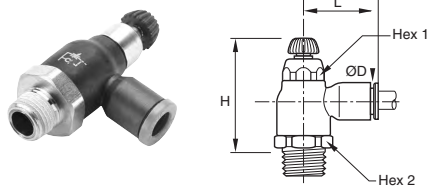
Check Valves..... G52

Compact Flow Control Valves	FCC731 Meter Out  Page G47	FCCB731 Bi-Directional Flow Control  Page G47	FCKC731 Knobless Meter Out Flow Control  Page G47	Miniature Flow Control Valves	FCM731 Meter Out Flow Control  Page G48
	FC832 Flow Control  Page G49	FCB832 Bi-directional Flow Control  Page G49	337 Series Micrometer Flow Control Valves  Page G50		338 Series Bi-directional Flow Control Valves  Page G50
In-Line Flow Control Valves	338 Series Bi-directional Flow Control Valves - BSPP  Page G50	3250 Series Flow Control Valves  Page G50	3250 Series Flow Control Valves - BSPP  Page G50	3250 Series Flow Control Valves  Page G50	3250 Series Flow Control Valves - BSPP  Page G50
	3251 Series Right Angle Flow Control Valves  Page G51	Check Valves		339 Series Check Valve  Page G52	339 Series Check Valve - BSPP  Page G52
Compact Metal Flow Control Valves				3047 Series Check Valve  Page G52	

Compact Flow Control Valves

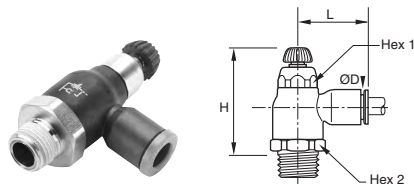


Compact flow control regulators ensure excellent performance of flow and are perfectly suited for reduced spaces due to their small size. The sensitivity of the adjustment screw provides very precise air flow control and regulation. A locking nut guarantees stability of adjustment against vibration tampering of the flow setting.



FCC731 Compact Meter Out

Part No.	Tube Size (In)	NPT	Hex 1 (In)	Hex 2 (In)	H Open	H Closed	L
FCC731-5/32-2	5/32	1/8	0.63	0.39	1.67	1.44	0.85
FCC731-5/32-4	5/32	1/4	0.63	0.39	1.67	1.44	0.85
FCC731-4-2	1/4	1/8	0.63	0.39	1.67	1.44	0.85
FCC731-4-4	1/4	1/4	0.63	0.39	1.67	1.44	0.85
FCC731-6-4	3/8	1/4	0.91	0.67	2.03	1.71	1.22
FCC731-6-6	3/8	3/8	0.91	0.67	2.03	1.71	1.22



FCCB731 Compact Bi-Directional Flow Control

Part No.	Tube Size (In)	NPT	Hex 1 (In)	Hex 2 (In)	H Open	H Closed	L
FCCB731-5/32-2	5/32	1/8	0.63	0.39	1.67	1.44	0.85
FCCB731-4-2	1/4	1/8	0.63	0.39	1.67	1.44	0.85
FCCB731-4-4	1/4	1/4	0.63	0.39	1.67	1.44	0.85

Materials Of Construction

Body (Depending upon the Model):	• Glass reinforced nylon 6.6 • Brass
Gripping Ring:	Stainless Steel
Adjustment Screws	Nickel-plated brass
Locking Nut:	Nickel-plated brass
Base:	Nickel-plated brass

Nomenclature

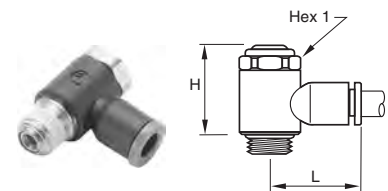
Example: FCC731-4-2	Attribute:
FC	Flow control
C	Compact
7	Right angle
3	Nylon body
1	Tube x Pipe
4	1/4 Tube O.D.
2	1/8 Pipe thread

Applicable Tube

Tube O.D.	1/8, 5/32, 1/4, 3/8
Tube O.D. (mm)	4, 6, 8, 10, 12

Specifications

Pressure Range:	15 to 145 PSI
Temperature Ranges:	30° to 160°F
Working Fluid:	Compressed air



FCKC731 Knobless Meter Out Flow Control

Part No.	Tube Size (In)	NPT / UNF	Hex 1 (mm)	H	L
FCKC731-2-0	1/8	10-32		0.69	0.65
FCKC731-2-2	1/8	1/8	13	0.79	0.75
FCKC731-5/32-0	5/32	10-32		0.69	0.65
FCKC731-5/32-2	5/32	1/8	13	0.79	0.75
FCKC731-4-0	1/4	10-32		0.69	0.77
FCKC731-4-2	1/4	1/8	13	0.79	0.85
FCKC731-4-4	1/4	1/4	17	1.04	0.89
FCKC731-5-2	5/16	1/8	13	0.79	1.02
FCKC731-5-4	5/16	1/4	17	1.04	1.06
FCKC731-6-4	3/8	1/4	17	1.04	1.14
FCKC731-6-6	3/8	3/8	20	1.14	1.36

Miniature Flow Control Valves



The miniature flow control regulator is especially adapted for all very small sized pneumatic applications (micro-pneumatic in particular). They are specifically designed for use with small bore cylinders (pancake / flat cylinders). Miniature flow control regulators are available in meter out, meter in and bi-directional versions.

Materials of Construction

Body (Depending upon the Model):	• Glass reinforced nylon 6.6 • Brass
Gripping Ring:	Stainless Steel
Adjustment Screws	Nickel-plated brass
Locking Nut:	Nickel-plated brass
Base:	Nickel-plated brass

Nomenclature

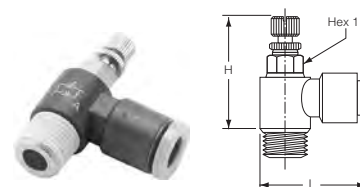
Example: FCM731-4-2	Attribute:
FC	Flow control
M	Miniature
7	Right angle
3	Nylon body
1	Tube x pipe
4	1/4 Tube O.D.
2	1/8 Pipe thread

Applicable Tube

Tube O.D.	1/8, 5/32, 1/4
Tube O.D. (mm)	3, 4, 6, 8

Specifications

Pressure Range:	15 to 145 PSI
Temperature Ranges:	30° to 160°F
Working Fluid:	Compressed air



FCM731 Miniature Meter Out Flow Control

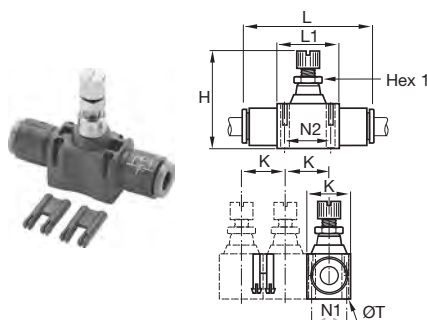
Part No.	Tube Size (In)	NPT	Hex 1 mm	H Open	H Closed	L
FCM731-2-0	1/8	10-32	6	1.14	0.91	0.67
FCM731-2-2	1/8	1/8	7	1.41	1.26	0.69
FCM731-5/32-0	5/32	10-32	6	1.02	0.93	0.67
FCM731-5/32-2	5/32	1/8	7	1.16	1.06	0.71
FCM731-4-0	1/4	10-32	6	1.02	0.93	0.73
FCM731-4-2	1/4	1/8	7	1.16	1.06	0.75
FCM731-4-4	1/4	1/4	8	1.28	1.18	0.77

In-Line Flow Control Valves



In-line flow controls are unidirectional flow control valves. Intake air flows freely through the flow control; exhaust air is metered out through a specially designed adjustment screw. An arrow on the body of the valve indicates the direction of controlled flow. They can be easily added to existing circuitry. Simply splice it into the cylinder port line.

They can be used individually or they may be stacked together using two joining clips.



FC832 In-Line Flow Control

Part No.	Tube Size (In)	Hex 1 mm	H Closed	H Open	K	L	L1	N1	N2	T
FC832-5/32	5/32	5	1.15	1.31	0.47	1.52	0.59	0.31	0.43	0.09
FC832-4	1/4	8	1.54	1.74	0.66	2.00	0.90	0.43	0.66	0.12
FC832-5	5/16	11	1.73	1.97	0.73	2.38	1.02	0.49	0.79	0.13
FC832-6	3/8	14	2.03	2.38	0.94	2.87	1.29	0.62	1.01	0.16
FC832-8	1/2	14	2.24	2.63	1.09	3.35	1.37	0.78	1.07	0.16

Materials of Construction

Body:	Glass reinforced nylon 6.6
Gripping Ring:	Stainless Steel
Adjustment Screws	Nickel-plated brass
Locking Nut:	Nickel-plated brass
Tailpiece:	Nickel-plated brass

Nomenclature

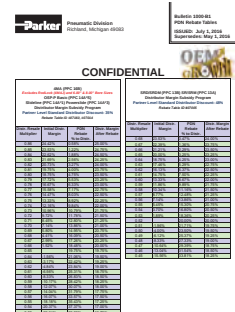
Example: FCMS731-5/32-2	Attribute:
FC	Flow control
M	Miniature
8	In-line
3	Nylon body
2	Tube x pipe
4	1/4 Tube O.D.

Applicable Tube

Tube O.D.	5/32, 1/4, 5/16, 3/8, 1/2
Tube O.D. (mm)	4, 6, 8, 10, 12

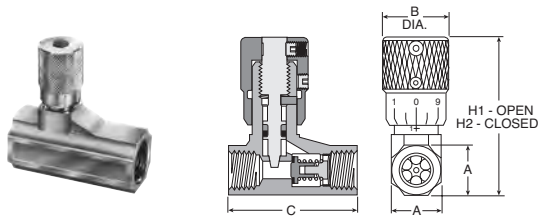
Specifications

Pressure Range:	15 to 145 PSI
Temperature Ranges:	30° to 160°F
Working Fluid:	Compressed air

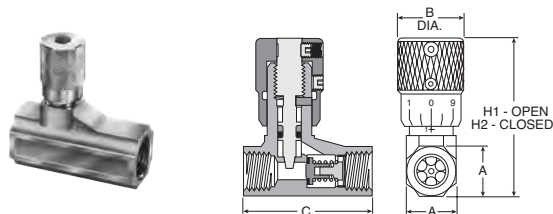


FCB832 In-Line Bi-directional Flow Control

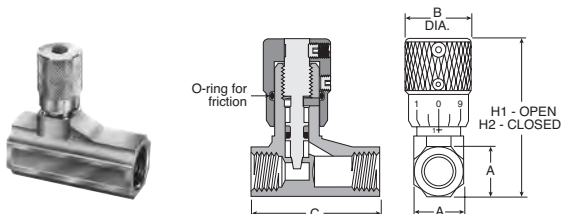
Part No.	Tube Size (In)	Hex 1 mm	H Closed	H Open	K	L	L1	N1	N2	T
FCB832-5/32	5/32	5	1.15	1.31	0.47	1.52	0.59	0.31	0.43	0.09
FCB832-4	1/4	8	1.54	1.74	0.66	2.00	0.90	0.43	0.66	0.12
FCB832-5	5/16	11	1.73	1.97	0.73	2.38	1.02	0.49	0.79	0.13

**337 Micrometer Flow Control Valves**

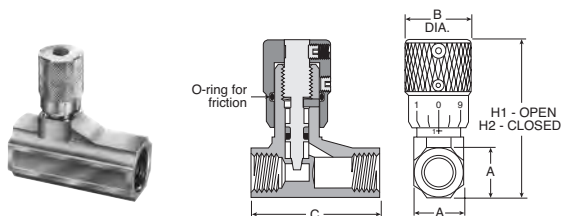
Part No.	Port Size	A	B	C	H1	H2
00337 1000	1/8"	9/16"	0.75	1.47	2.03	1.81
00337 1001	1/4"	11/16"	0.75	1.47	2.28	2.03
00337 1002	3/8"	7/8"	0.88	2.31	2.84	2.53
00337 1003	1/2"	1-3/16"	1.06	3.25	3.62	3.22
00337 1004	3/4"	1-3/8"	1.06	3.25	3.72	3.31

**337 Micrometer Flow Control Valves - BSPP**

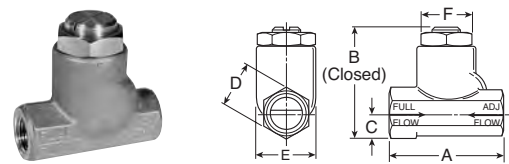
Part No.	Port Size	A	B	C	H1	H2
00337G1000	1/8"	9/16"	0.75	1.47	2.03	1.81
00337G1001	1/4"	11/16"	0.75	1.47	2.28	2.03

**338 Bi-directional Flow Control Valves**

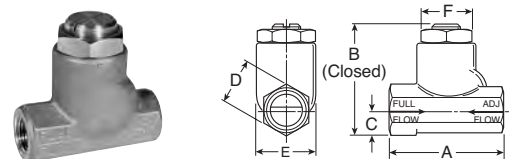
Part No.	Port Size	A	B	C	H1	H2
00338 1100	1/8"	9/16"	0.75	1.47	2.03	1.81
00338 1101	1/4"	11/16"	0.75	1.47	2.28	2.03
00338 1102	3/8"	7/8"	0.88	2.31	2.84	2.53
00338 1103	1/2"	1-3/16"	1.06	3.25	3.62	3.22
00338 1104	3/4"	1-3/8"	1.06	3.25	3.72	3.31

**338 Bi-directional Flow Control Valves - BSPP**

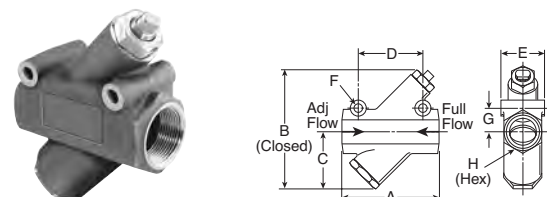
Part No.	Port Size	A	B	C	H1	H2
00338G1100	1/8"	9/16"	0.75	1.47	2.03	1.81
00338G1101	1/4"	11/16"	0.75	1.47	2.28	2.03

**3250 Flow Control Valves**

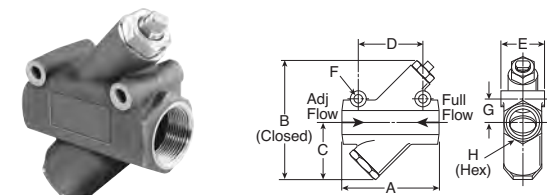
Part No.	Port Size	A	B	C	D	E	F
03250 0119	1/8"	1.75	1.56	0.37	0.62	0.81	0.68
03250 0219	1/4"	2.33	1.97	0.44	0.75	1.09	0.94
03250 0319	3/8"	2.66	2.44	0.56	1.00	1.38	1.19
03250 0419	1/2"	3.11	3.06	0.75	1.25	1.63	1.38
03250 0519	3/4"	3.56	3.69	0.88	1.50	2.00	1.75

**3250 Flow Control Valves - BSPP**

Part No.	Port Size	A	B	C	D	E	F
3250G0119	1/8"	1.75	1.56	0.37	0.62	0.81	0.68
3250G0219	1/4"	2.33	1.97	0.44	0.75	1.09	0.94
3250G0319	3/8"	2.66	2.44	0.56	1.00	1.38	1.19
3250G0419	1/2"	3.11	3.06	0.75	1.25	1.63	1.38
3250G0519	3/4"	3.56	3.69	0.88	1.50	2.00	1.75

**3250 Flow Control Valves**

Part No.	Port Size	A	B	C	D	E	F	G	H
3250G1000	1"	5.00	6.50	3.00	3.25	2.25	.39	1.31	2.13
3250G1250	1-1/4"	5.00	6.50	3.00	3.25	2.25	.39	1.31	2.13
3250G1500	1-1/2"	5.88	8.00	3.75	3.50	2.50	.39	1.50	2.38

**3250 Flow Control Valves - BSPP**

Part No.	Port Size	A	B	C	D	E	F	G	H
03250 1000	1"	5.00	6.50	3.00	3.25	2.25	.39	1.31	2.13
03250 1250	1-1/4"	5.00	6.50	3.00	3.25	2.25	.39	1.31	2.13
03250 1500	1-1/2"	5.88	8.00	3.75	3.50	2.50	.39	1.50	2.38

Compact Metal Flow Control Valves



Metal flow control regulators are suited for use in severe conditions (temperatures, sparks, abrasion, etc). The screw and locking nut have been designed for easy manipulation, by hand. Adjustment can be made with a screwdriver and locking by use of a wrench.

Materials of Construction

Body:	Treated Brass
Gripping Ring:	Stainless Steel
Adjustment Screws	Nickel-plated brass
Locking Nut:	Nickel-plated brass
Tailpiece:	Nickel-plated brass

Nomenclature

Example: FCMS731-5/32-2	Attribute:
FC	Flow control
7	Right angle
0	Brass body
1	Tube x pipe
4	1/4 Tube O.D.
2	1/8 Pipe thread

Applicable Tube

Tube O.D.	1/8, 5/32, 1/4, 3/8
Tube O.D. (mm)	4, 6, 8, 10, 12, 14

Specifications

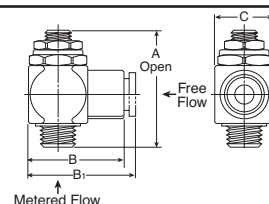
Pressure Range:	15 to 145 PSI
Temperature Ranges:	30° to 160°F
Working Fluid:	Compressed air



Shown with
Threaded Inlet



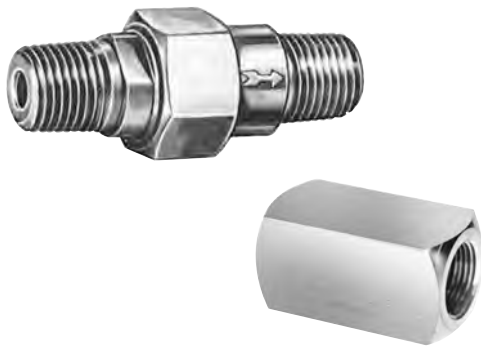
Shown with
Prestolok
Inlet Fitting



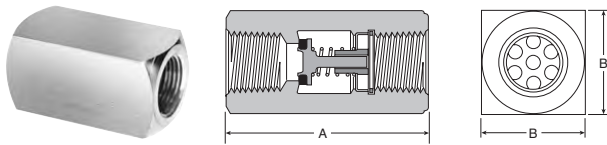
Model Number	Thread (NPT) Male	Thread (NPT) Female	A mm	B mm	C mm	Weight kg.	Cv	
							Adjusted Flow	Free Flow
03251 0125	1/8	1/8	44	30	17	0.9	0.26	0.20
03251 0250	1/4	1/4	51	36	23	2.0	0.75	0.68
03251 0375	3/8	3/8	58	43	27	3.2	0.84	0.72
03251 0500	1/2	1/2	68	53	32	5.0	1.64	1.41
With Prestolok Fittings								
03251 1215	1/8	5/32	44	30	17	0.9	0.19	0.16
03251 1225	1/8	1/4	44	30	17	0.9	0.28	0.22
03251 2525	1/4	1/4	51	36	23	2.0	0.51	0.44
03251 2538	1/4	3/8	51	36	23	2.0	0.62	0.53
03251 3838	3/8	3/8	58	43	27	3.2	0.78	0.65

CAUTION: If it is possible that the ambient temperature may fall below freezing, the medium must be moisture-free to prevent internal damage or unpredictable behavior.

Check Valves

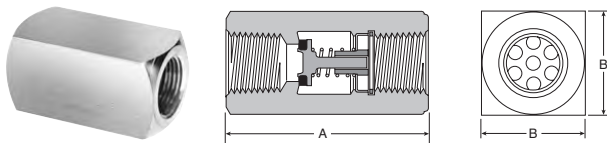


These in-line check valves allows air to pass in one direction while blocking flow in the other direction. Their extreme compactness and light weight make them suitable as a safety item in compressed air circuits. The body of the fitting contains an arrow to indicate the direction of flow.



339 Check Valve

Part No.	Port Size	A	B
00339 3000	1/8"	1.22	0.56
00339 3001	1/4"	1.34	0.69
00339 3002	3/8"	2.00	0.88
00339 3003	1/2"	2.56	1.19
00339 3004	3/4"	2.66	1.38



339 Check Valve - BSPP

Part No.	Port Size	A	B
00339G3000	1/8"	1.22	0.56
00339G3001	1/4"	1.34	0.69
00339G3002	3/8"	2.00	0.88
00339G3003	1/2"	2.56	1.19
00339G3004	3/4"	2.66	1.38

Materials of Construction

Body:	32PLCK: Nylon/nickel plated brass 68PLCK: Nylon body with nickel-plated brass base - VC: Acetal
Gripping Ring:	Stainless Steel
O-Ring:	- Nitrile (32PLCK & 68PLCK) - EPDM (VC)

Nomenclature

Example: W68PLCK-4-2	Attribute:	Example: A4VC4-MG	Attribute:
W	White thread sealant	A	Acetal
68	Tube x Pipe	4	1/4 Tube O.D.
PL	Prestolok	VC	Valve, Check
CK	Check Valve	4	1/4 Tube O.D.
4	1/4 Tube O.D.	MG	Metal gripping ring
2	1/8 Pipe thread		

Applicable Tube

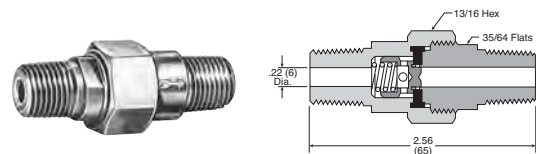
Tube O.D.	- PLCK: 5/32, 1/4, 5/16, 3/8 - VC: 1/4, 5/16, 3/8
Tube O.D. (mm)	PLCK: 4, 6, 8, 10, 12

Specifications

Pressure Range:	15 to 145 PSI
Temperature Ranges:	34°F to 150°F
Cracking Pressure:	- PLCK: 7 PSI - VC: 1/3 PSI
Working Fluid:	Compressed air

3047 Check Valve

Model Number	Pipe Thread
03047 0099	1/4"





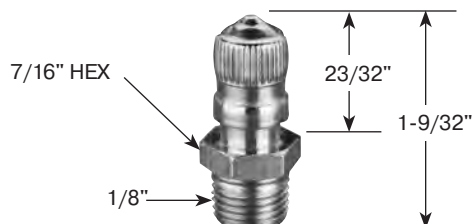
Tank Valves & Air Chucks	G54	Muffler-Reclassifier ECS	G59
EM Series Exhaust Mufflers.....	G55	Automatic Drip Leg Drain & Relief Valve	G60
Muffler / Flow Controls	G55	Relief Valves - Diaphragm Type	G61
Breather Vents.....	G56	Shuttle Valves & Quick Exhaust	G62-G64
ES Series Silencer	G56	AirGuard Protection System	G65-G66
ASN Air Line Silencer.....	G57	Drain Valves.....	G67-G68
P6M Air Line Silencer	G58	Safety Blow Guns.....	G69-G71

Tank Valves

For tanks, steel barrels, compressors and other pneumatic containers where a dependable automatic air valve is needed. Equipped with standard valve core and sealing cap. Maximum operating pressure is 185 PSIG. Temperature range is -40°F to 220°F.

Model No. 09166 0060

Has a 1/8" pipe thread at bottom for minimum protrusion. N/P finish, dome shaped cap. Packed 25 to a box.



Air Chucks

For regular airlines.

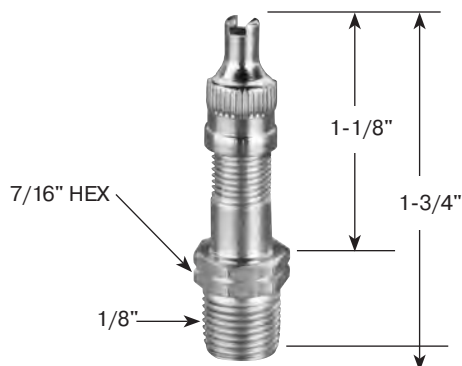
Model No. 05499 0000

Ball-foot air chuck, 1/4" female port. Packed 10 to a box.



Model No. 00645 0060

A 1/8" pipe thread at bottom permits maximum protrusion. N/P finish, screwdriver type cap. Packed 25 to a box.



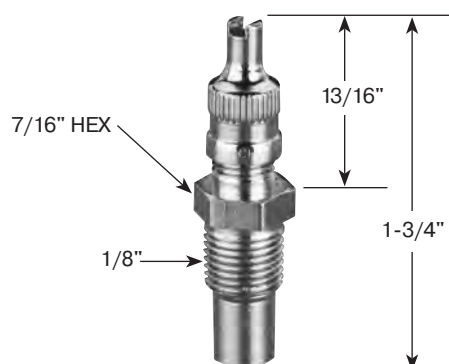
Model No. 06739 0000

Ball-foot air chuck with clip. Fits standard valve mouth. Saves holding on by hand. Has 1/4" port for connecting to hose. Packed 10 to a box.



Model No. 01468 0006

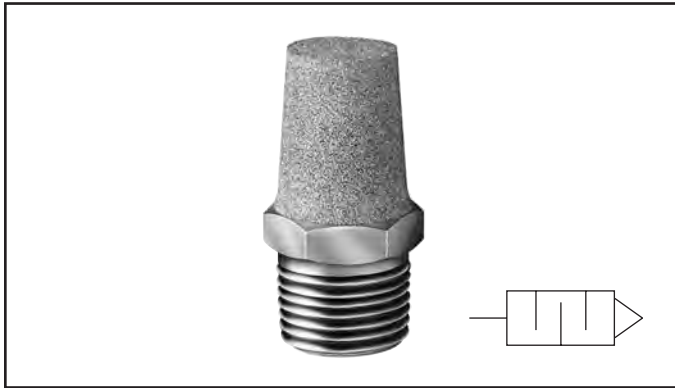
Has a 1/8" pipe thread part way up the stem which allows for minimum protrusion. N/P finish, has screwdriver type cap. Packed 25 to a box.



G

Airline Accessories

EM Series – Sintered Bronze Muffler / Filters



General Description

Muffler / filters effectively reduce air exhaust noises to an industry accepted level with minimum flow restriction. They protect valves, impact wrenches, screw drivers and other air tools by preventing dirt and other foreign matter from entering the system. Non-corrosive. Can be cleaned with many common solvents.

Specifications

Maximum Operating Pressure 250 PSIG (Air)

Operating Temperature 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air.
Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures.
Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
EM12	1/8"	1.00	7/16"
EM25	1/4"	1.32	9/16"
EM37	3/8"	1.54	11/16"
EM50	1/2"	1.85	7/8"
EM75	3/4"	2.29	1-1/16"
EM100	1"	2.91	1-5/16"
EM125	1-1/4"	3.25	1-11/16"
EM150	1-1/2"	3.69	2"

Muffler / Flow Controls



General Description

Muffler / flow controls provide an acceptable exhaust noise level and effectively meter exhaust. Installed in valve exhaust ports, they control cylinder piston speeds throughout a wide range. The adjusting screw cannot be accidentally blown out, can be locked to maintain setting. Brass and bronze construction. Clean with commonly used solvents.

Specifications

Maximum Operating Pressure 250 PSIG (Air)

Operating Temperature 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air.
Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures.
Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
04502 0002	1/8"	1.15	9/16"
04504 0004	1/4"	1.42	1/2"
04506 0060	3/8"	1.49	11/16"
04508 0080	1/2"	1.77	7/8"
04512 0012	3/4"	1.98	1-1/16"
04516 0016	1"	2.15	1-5/16"

Breather Vents



NOTE: Breather vents should not be used as exhaust mufflers.

General Description

These low silhouette versions of the muffler / filter are useful where space is a problem and / or to prevent contamination. Use for vacuum relief or pressure equalization in gear boxes, oil tanks, reservoirs, etc. Non-corrosive.

Specifications

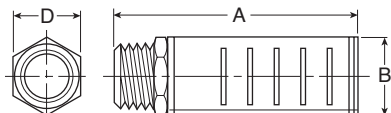
Maximum Operating Pressure 150 PSIG (Air)

Operating Temperature 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
04702 0002	1/8"	0.44	7/16"
04704 0004	1/4"	0.63	9/16"
04706 0006	3/8"	0.75	11/16"
04708 0008	1/2"	0.88	7/8"
04712 0012	3/4"	1.00	1-1/16"
04716 0016	1"	1.31	1-5/16"
04720 0020	1-1/4"	1.41	1-11/16"
04724 0024	1-1/2"	1.50	2"

ES Series – Silencer



General Description

The silencer is designed to give superior performance in noise control with a minimum effect on air efficiency. "Trimline" design allows location in the tightest places without extra plumbing and fittings. Fits directly into the exhaust port of more than 90% of present commercial valves. Slotted body permits rapid discharge of air without undesirable back pressure. Unique nylon screen element resists dirt buildup or clogging.

Specifications

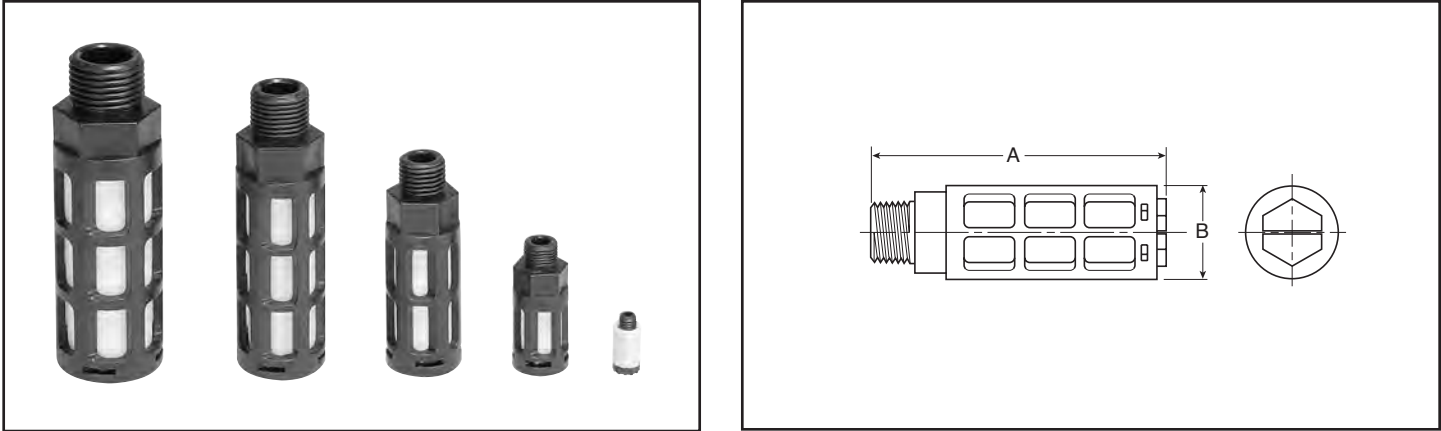
Maximum Operating Pressure 250 PSIG (Air)

Operating Temperature 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Numbers		Pipe Thread	Flow SCFM @ 100 PSIG Inlet	Dimensions		
NPTF	BSPT (R)			A	B	D
ES12MC	ESB12MC	1/8"	115	1.85	0.81	0.63
ES25MC	ESB25MC	1/4"	129	1.85	0.81	0.63
ES37MC	ESB37MC	3/8"	219	3.31	1.26	1.00
ES50MC	ESB50MC	1/2"	549	3.31	1.26	1.00
ES75MC	ESB75MC	3/4"	893	4.56	2.01	1.62
ES100MC	ESB100MC	1"	1,013	4.56	2.01	1.62
ES125MC	ESB125MC	1-1/4"	1,486	5.69	2.88	—
ES150MC	ESB150MC	1-1/2"	1,580	5.69	2.88	—

ASN Series – Air Line Silencer



Features

- Compact
- Lightweight
- Easy to Install
- Excellent Noise Reduction
- Protects Components from Contamination
- NPT and BSPT Threads Available

Part Number		Thread Size	A (mm)	B (mm)	Maximum Flow (SCFM) 100 PSIG Inlet	Sound Pressure Level (dBA)	
NPT	BSPT					20 PSIG Inlet	100 PSIG Inlet
AS-5		M5	0.43 (11)	0.32 (8)	15	69	79
ASN-6	AS-6	1/8"	1.57 (40)	0.63 (16)	51	69	81
ASN-8	AS-8	1/4"	2.56 (65)	0.83 (21)	124	67	84
ASN-10	AS-10	3/8"	3.35 (85)	0.98 (25)	247	83	98
ASN-15	AS-15	1/2"	3.74 (95)	1.18 (30)	370	69	96

Application

The plastic silencer is designed to give excellent noise reduction with a minimum effect on air efficiency. The “Trimline” design allows for locating the silencer in the tightest places without extra plumbing or fittings. Fits directly into the exhaust port of most commercial valves. Open surface area of element allows for rapid discharge of air without undesirable back pressure.

Specifications

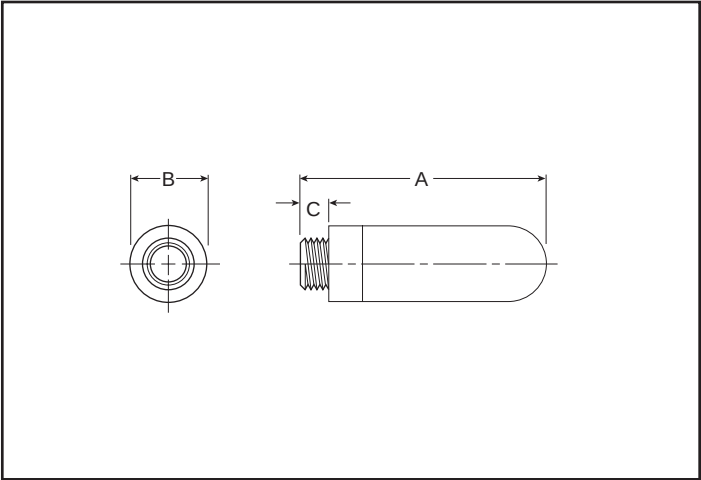
Pressure Rating0 to 150 PSIG
(0 to 10 bar, 0 to 1034 kPa)

Temperature Rating 14°F to 140°F (-10°C to 60°C)

Body Acetal (Plastic)

Element Polyethylene

P6M Series – Air Line Silencer



Features

- All Plastic Ultra Light Weight Versions
- High Noise Level Reduction
- Low Back Pressure Generation

Application

The plastic silencer is designed to give excellent noise reduction with a minimum effect on air efficiency. The “Trimline” design allows for locating the silencer in the tightest places without extra plumbing or fittings. Fits directly into the exhaust port of most commercial valves. Open surface area of element allows for rapid discharge of air without undesirable back pressure.

Part Number	Port Thread	A	Diameter B	C	Weight (grams)
P6M-PAC5	M5	0.91 (23)	0.26 (6,5)	0.16 (4)	0.01
P6M-PAB1	G1/8	1.14 (29)	0.55 (14)	0.24 (6)	0.02
P6M-PAB2	G1/4	1.34 (34)	0.67 (17)	0.24 (6)	0.04
P6M-PAB3	G3/8	2.36 (60)	0.98 (25)	0.35 (9)	0.06
P6M-PAB4	G1/2	2.52 (64)	0.98 (25)	0.43 (11)	0.10
P6M-PAB6	G3/4	5.51 (140)	1.50 (38)	0.55 (14)	0.50
P6M-PAB8	G1	6.30 (160)	1.89 (48)	0.79 (20)	0.62

Specifications

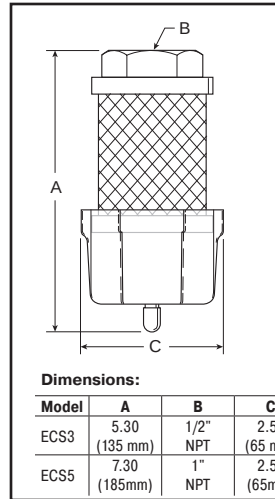
Pressure Rating 0 to 246 PSIG
(0 to 17 bar, 0 to 1700 kPa)

Temperature Rating

Plastic 14°F to 176 °F (-10°C to 80°C)
Metal 14°F to 165 °F (-10°C to 74°C)

Efficiency 92%

ECS Series – Air Line Muffler / Reclassifier



Operation

Compressor oils and lubricating oils are exhausted from valves, cylinders and air motors into the ECS. Oil aerosols are “coalesced” into larger droplets and gravity pulls them into the attached drain sump. The sump can then be drained manually or by using a 1/4" ID plastic tube drain. The air flowing into the ECS is also muffled or silenced as it enters the inside of the ECS and passes through the filter media into the atmosphere.

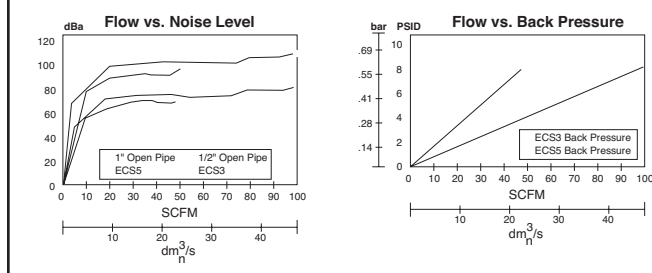
Proven Technology

The ECS units are constructed from the same materials that go into our oil removal coalescing filter elements.

The seamless design insures media uniformity and strength. This proven technology provides high coalescing efficiency with low pressure drop.

The filter media is supported by cylindrical perforated steel retainers both inside and out. These retainers, fully plated for excellent corrosion resistance, give the ECS units high rupture strength in either flow direction. These filters can also be used as high efficiency inlet or bypass filters for vacuum pumps, or breather elements to protect the air above critical process liquids.

Performance Characteristics



Features

The ECS (Muffler-Reclassifier) eliminates unwanted oil mist and reduces exhaust noise from pneumatic valves, cylinders and air motors.

- 99.97% Oil Removal Efficiencies
- 25 dBA Noise Attenuation
- 1/2" NPT and 1" NPT
- Disposable Units
- Continuous or Plugged Drain Option
- Metal Retained Construction
- Fast Exhaust Time

Improve Overall Plant Environment

Exhaust oil mist and noise pollution have a direct impact on worker productivity.

Oil aerosol mist from lubricators and compressors is pervasive and enters the industrial plant environment through the exhaust ports of valves, cylinders and air motors. This rapidly expanding exhaust also produces sudden and excessive noise.

The ECS (Muffler-Reclassifier) is 99.97% efficient at removing the oil aerosols. The ECS also acts as a silencer to lower the dBA levels below O.S.H.A. requirements.

The result is a cleaner, quieter environment which equates to greater work productivity and safety.

ECS3 / ECS5

The ECS solves two problems inherent in compressed air exhaust from valves, cylinders and air motors - oil mist removal and noise abatement.

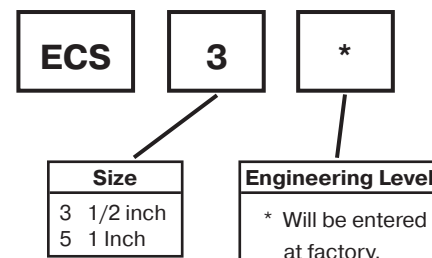
The ECS will improve your industrial plant environment, thereby improving worker productivity.

Specifications

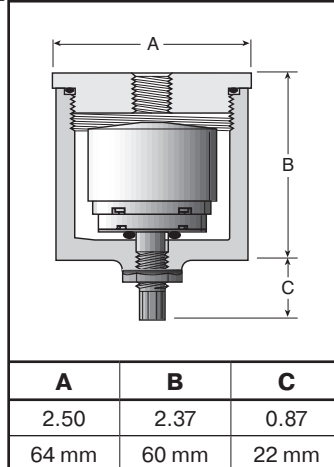
Maximum Operating Temperature 125°F (52°C)

Maximum Line Pressure 100 PSIG (6.8 bar)

Ordering Information



Automatic Drip Leg Drain



Features

- Auto Drain Ported 1/8" to Pipe Away Liquid.
- Drain has Manual Override
- Easily Serviced without Tool
- 20-250 PSIG Range
- Compact Size

Specifications

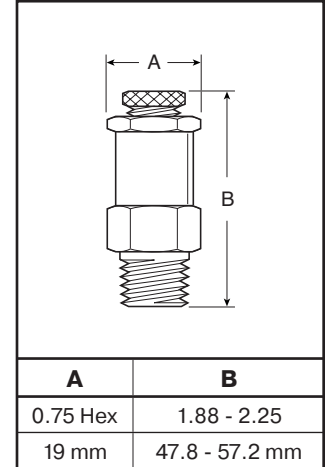
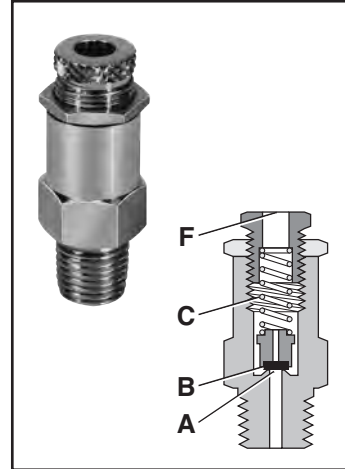
Housing & Cap	Aluminum
Port Threads	1/4" - 1/2" Top 1/8" Drain
Pressure and Temperature Ratings:	
Metal Bowl	20 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)
Seals	Buna N

Ordering Information

Consists of Drip Leg Drain Housing WITH Auto Drain.

Model No.	Size
06D1NA	1/4"
06D3NA	1/2"

Relief Valve



Features

- Large Relief Capacity (70.39 SCFM @ 150 PSI when fully opened) in a Compact Size
- Lightweight Aluminum Construction with Resilient Seat

Application

The RV01A1N Pop Off Relief Valve is designed to protect against excessive pressure buildup in a pneumatic circuit or system.

Operation*

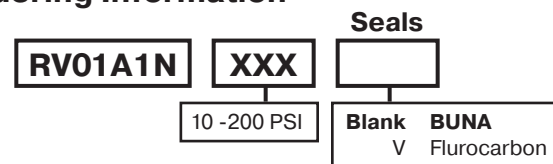
With the relief valve mounted in a reservoir or system, the force of system pressure at (A) is offset by the force of spring (C) acting on poppet seat (B). At pressures lower than the setting, the poppet seat (B) is held against the body at (A) effecting a seal. As pressure approaches set point, the poppet begins to vent until set point is reached, at which time the poppet seat (B) lifts off the body at (A) allowing the excess pressure to vent to atmosphere at (F). When the excess pressure has been vented, the spring (C) acts on the poppet seat (B) forcing it to seat on the body at (A), sealing off the flow of air.

Specification

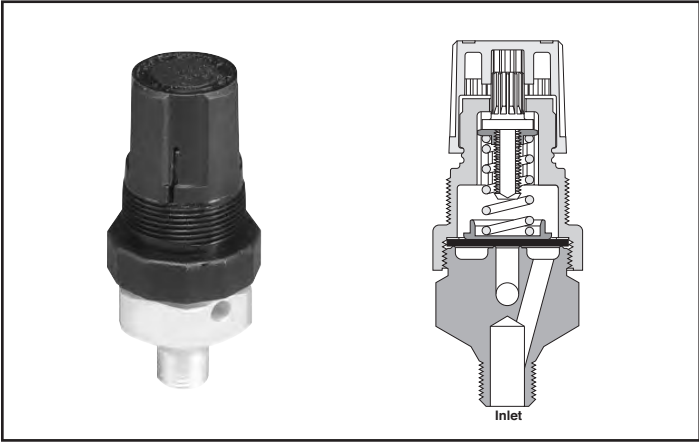
Body & Adjusting Screw	Aluminum
Locking Nut	Steel
Seat	Nitrile
Spring	Steel
Poppet	Plastic
Operating Temperature	32°F to 200°F (0°C to 93°C)
Port Threads	1/4 Inch Male
Relief Range	10 to 200 PSIG (.7 to 14 bar) with standard spring.

* Ref: 1RV100B Installation & Service Instructions

Ordering Information



130 Relief Valve



Features

- Compact, Sensitive Diaphragm-type Relief Valve
- Push-pull, Locking Knob
- Knob and Top Work the Same as a Miniature Regulator
- 130 has Lightweight Aluminum Construction
- 134 has a brass body, captured exhaust and is an Inline Type with 3 Inlet Ports and 1 Outlet Port

Applications

- Designed to Protect Against Excessive Pressure Buildup in a Pneumatic Circuit or System
- For Use where Gradual Proportional Relief is Required

Operation

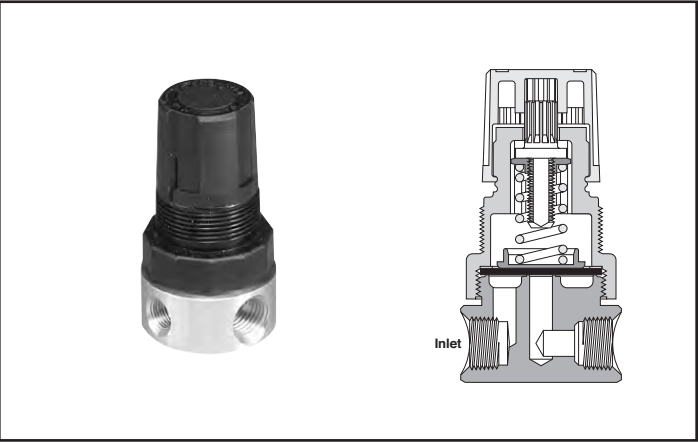
- Turn relief valve knob clockwise for maximum pressure.
- Set pressure going into relief valve at desired pressure.
- Turn relief valve knob counter-clockwise until exhaust starts to bleed.
- Turn relief valve knob clockwise until exhaust stops bleeding. Push to lock knob.

Ordering Information

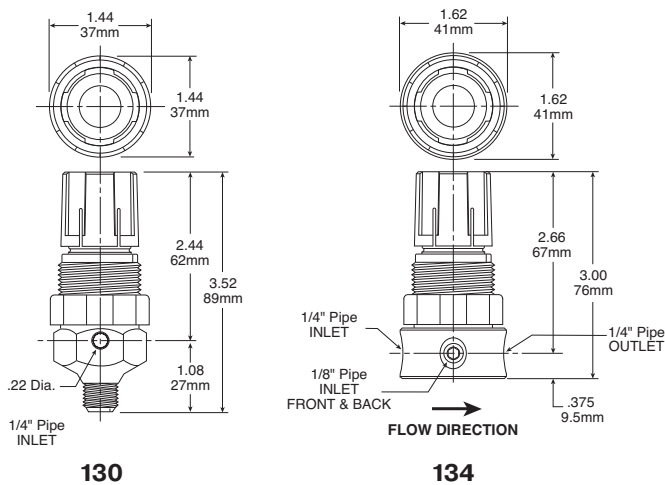
Relief Valve	Spring Range			
	0-15 PSIG	0-25 PSIG	0-50 PSIG	0-100 PSIG
130	130-02AA	130-02A	130-02B	130-02C
	130-02AAP*	130-02AP*	130-02BP*	130-02CP*
134	134-02AA	134-02A	134-02B	134-02C
	134-02AAP*	134-02AP*	134-02BP*	134-02CP*

* Panel mount nut included.

134 Relief Valve



Dimensions



Relief Valve Kits

- Bonnet Assembly Kit** PCKR364Y
Panel Mount Nut PR05X51

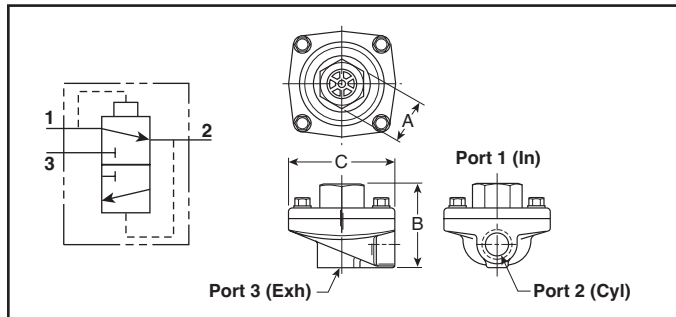
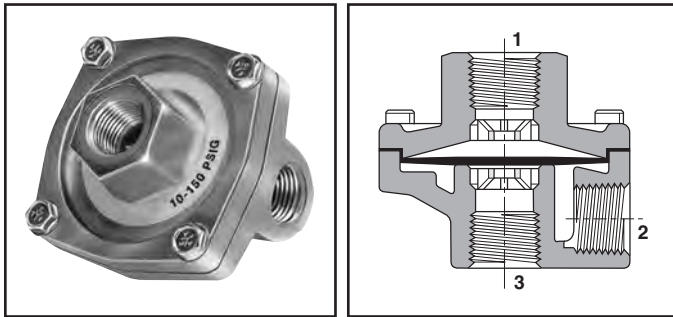
Specifications

- Relief Range** 0 to 100 PSIG (0 to 6.9 bar)
Maximum Inlet Pressure 300 PSIG (20.7 bar)
Operating Temperature 40°F to 120°F (4°C to 49°C)
Port Threads:
130 1/4" Pipe Male Only
134 Inlet Port – Two 1/8" & One 1/4" Pipe
Outlet Port – 1/4" Pipe

Materials of Construction

- Adjusting Knob** Polypropylene
Adjusting Screw Zinc-plated Steel
Body Aluminum (130); Brass (134)
Diaphragm / Disc Buna-N
Nut Chromated Steel
Spring Cage Acetal
Spring Zinc-plated Steel

Quick Exhaust & Shuttle Valves



General Information

Quick exhaust valves provide rapid exhaust of control air when placed between control valve and actuator. They can also be used as shuttle valves. Diaphragm materials are available in urethane, Nitrile, Fluorocarbon, and PTFE to meet a wide variety of operating conditions.

Valve Specifications

Operating Pressure (Air)

Maximum:

150 PSIG
200 PSIG for Model No. 0R37TB (PTFE diaphragm)

Minimum:

3 PSIG
50 PSIG for Model No. 0R37TB (PTFE diaphragm)

Operating Temperature:

Urethane: 0°F to 180°F* (-18°C to 80°C)
Nitrile: 0°F to 180°F* (-18°C to 80°C)
Fluorocarbon: 0°F to 400°F* (-18°C to 205°C)
PTFE: 0°F to 500°F* (-18°C to 260°C)

* Ambient temperatures below freezing require moisture-free air.

Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures.

Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material Die cast aluminum

Static Seals Nitrile standard with urethane
(Others see below)

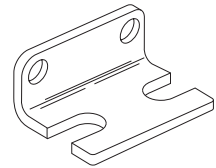
Diaphragm Standard – Urethane
Optional – Fluorocarbon, PTFE, or Nitrile
(Depending on size)

Mounting Bracket Kit –

No. 036408100

(Including body screws)

For “0R12” and “0R25” sizes
with 7/8” “A” Dimension.



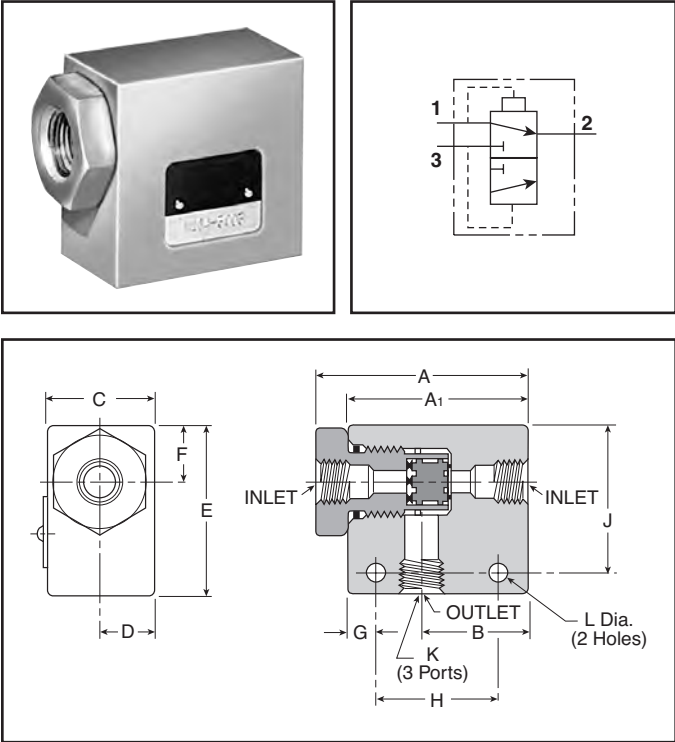
Model Selection, Performance Data and Dimensions

Port			Flow (SCFM)	Model Number		A	B	C	Service Kit No.
1	2	3		NPTF	BSPP “G”				
STANDARD URETHANE DIAPHRAGMS (Nitrile static seals)									
1/4"	1/4"	3/8"	150	0R25NB	0RB25NB	1" Hex	2.06	2.44	033400105
	3/8"	3/8"	240	0R25PB	—	1" Hex	2.06	2.44	033400105
3/8"	3/8"	3/8"	240	0R37B	0RB37B	1" Hex	2.06	2.44	033400105
1/2"	1/2"	1/2"	450	0R50B	0RB50B	1-1/2" Hex	2.88	3.38	034750109
3/4"	3/4"	3/4"	550	0R75B	0RB75B	1-1/2" Hex	2.88	3.38	034750109
NITRILE DIAPHRAGMS (Nitrile static seals)									
1/8"	1/8"	1/8"	70	0R12B	0RB12B	7/8" Sq.	1.75	1.88	036408000
	1/8"	1/4"	70	0R12NB	0RB12NB	7/8" Sq.	1.75	1.88	036408000
1/4"	1/4"	1/4"	90	0R25B	0RB25B	7/8" Sq.	1.75	1.88	036408000
	1/4"	3/8"	90	0R25NFB	0RB25NFB	1" Hex	2.06	2.44	033408000
3/8"	3/8"	3/8"	240	0R37FB	0RB37FB	1" Hex	2.06	2.44	033408000
3/4"	3/4"	3/4"	550	0R75FB	0RB75FB	1-1/2" Hex	2.88	3.38	034759000
FLUOROCARBON DIAPHRAGMS for extended temperature operation (Fluorocarbon static seals)									
1/8"	1/8"	1/8"	70	0R12VB	0RB12VB	7/8" Sq.	1.75	1.88	036508000
	1/8"	1/4"	70	0R12NVB	0RB12NVB	7/8" Sq.	1.75	1.88	036508000
1/4"	1/4"	1/4"	90	0R25VB	0RB25VB	7/8" Sq.	1.75	1.88	036508000
3/8"	3/8"	3/8"	240	0R37VB	0RB37VB	1" Hex	2.06	2.44	033400319
1/2"	1/2"	1/2"	450	0R50VB	0RB50VB	1-1/2" Hex	2.88	3.38	034750120
3/4"	3/4"	3/4"	550	0R75VB	0RB75VB	1-1/2" Hex	2.88	3.38	034750120
PTFE DIAPHRAGMS for higher pressure and temperature (Fibre static seals)									
3/8"	3/8"	3/8"	240	0R37TR	0RB37TR	1" Hex	2.06	2.44	033400504

† At 100 PSIG inlet pressure with full pressure drop.

BOLD ITEMS ARE MOST POPULAR.

Shuttle Valve



General Information

Shuttle valves determine a single pneumatic output from two separate inputs. If pressure is applied to both ports simultaneously, the valve will select the port with the higher pressure.

Valve Specifications

Maximum Operating Pressure200 PSIG Maximum
3 PSIG Minimum: Differential Pressure

Operating Temperature0° to 160°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material.....Aluminum
Internal Components Aluminum
Seals.....Nitrile

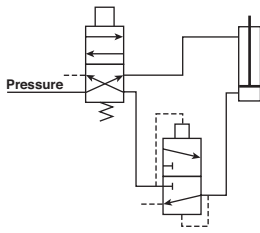
Model Selection and Dimensions

Model Number	Port Size	Dimensions											
		A	A1	B	C	D	E	F	G	H	J	K	L
N164 1001	1/8"	N/A	1.62	0.81	0.62	0.31	1.00	0.281	0.312	1.00	0.75	1/8 - 27	0.219
N164 2003	1/4"	2.50	2.12	1.25	1.25	0.62	2.00	0.67	0.265	1.25	1.35	1/4 - 18	0.219
N164 3003	3/8"	2.50	2.12	1.25	1.25	0.62	2.00	0.67	0.265	1.25	1.35	3/8 - 16	0.219

Performance Data – Flow

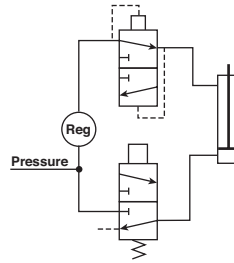
Model Number	Port Size	Flow (Cv)
N164 1001	1/8"	0.32
N164 2003	1/4"	1.65
N164 3003	3/8"	2.02

Typical “Quick Exhaust Valve” Applications



Rapid Retraction – Double Acting Cylinder

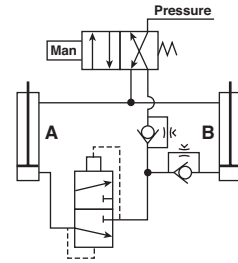
In this circuit, air is exhausted through a Quick Exhaust Valve that is **close coupled** to the cap end of the cylinder. Because the Quick Exhaust Valve has a greater exhaust capacity than the four-way Control Valve, increased cylinder speed can be accomplished with a smaller and less expensive control valve.



Dual Pressure Actuation of Double Acting Cylinder

This circuit utilizes a Quick Exhaust Valve and a three-way Control Valve to permit rapid extension of the cylinder at a high pressure. Under life.

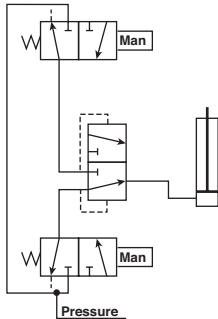
NOTE: Line pressure must be 3 or 4 times greater than rod end pressure. Effective working pressure is the differential between the cap and rod end.



Bi-Directional Control of Two Double Acting Cylinders

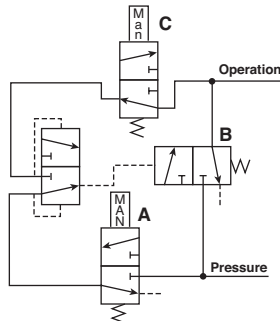
This circuit provides maximum control with a minimum of valving. A large four-way Control Valve is not needed to permit the rapid retraction of Cylinder A, as the Quick Exhaust Valve performs this function. The extension of Cylinders A and B and retraction of Cylinder B are controlled by Speed Control Valves.

Typical “Shuttle Valve” Applications



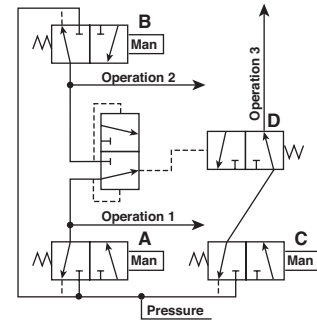
“OR” Circuit

The most common application of the Shuttle Valve is the “OR” Circuit. Here a cylinder or other work device can be actuated by either control valve. The valves can be manually or electrically actuated and located in any position.



Memory Circuit

This circuit enables continuous operation once initiated. Pressure is delivered to the circuit when Valve A is actuated. This allows pressure to pass through the shuttle valve actuating Valve B. Pressure then flows through Valve B and also the other side of the shuttle valve which holds Valve B open for continuous operation. To unlock the circuit, Valve C must be opened to exhaust the circuit and allow Valve B to return to its normally closed position.



Interlock

This circuit prevents the occurrence of a specific operation while one or another operation takes place. When either Valve A or B is actuated to perform operation 1 or 2, Valve D is shifted to the closed position and prevents operation 3 from occurring.

AirGuard Protection System

Airfuse - protection of personnel, machinery and equipment



Product Features:

- Maintenance Friendly: Repair possible while plant is still operating
- Economic: Competitive pricing
- Complies with EU Standard: EN 983 - § 5.3.4.3.2.
- Reliable and Tamperproof: No adjustment necessary
- Complies with ISO Standard: 4414 - § 5.4.5.11.1
- Complies with MSHA Regulation: 30CFR 56.13021, 57.13021 and 57.1730
- Lightweight: Compact size.
- Compatible with all Pneumatic Systems
- Can be used as a Flow Blocker
- TUV Approval: No. 01-02-0145
- EU Registered Utility: Model No. 0025 73 525
- Complies with OSHA Regulation Standard: 29CFR 1926.302 (Partial)

Protect your most important assets: your employees and their equipment!

The AirGuard offers simple but efficient protection of a broken compressed-air hose. The air supply is immediately shut off by the AirGuard, should the volume of air exceed a set value. This "value" is factory preset and is set to allow normal air consumption when using air tools.

Should the air consumption exceeds the set value, e.g. the air line is severed, then the internal piston instantly shuts off the main flow. An integral bleed hole allows some air to flow through. This enables the line pressure to automatically reset the AirGuard once the main line break is repaired.

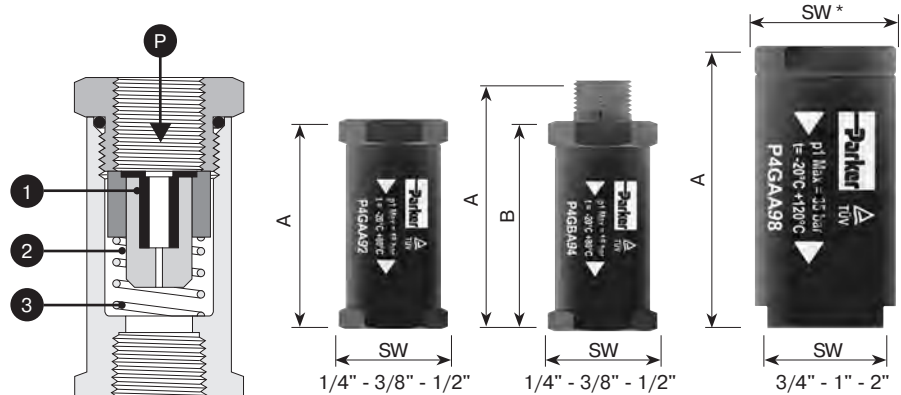
G

Airline Accessories

AirGuard Protection System

Function:

(P) is the inlet. Air passes the piston (1) and continues through the seat (3). The air flow, passing the piston, is slowed down by means of length wise grooves on the outer side of the piston. If the flow is too high, the air cannot pass the piston quickly enough, and the piston is forced against the spring (2) and towards the seat. The maximum flow is shown in the graph. If the value indicated is exceeded e.g. if the hose suddenly breaks - the air supply is automatically shut of. An integral bleed hole allows some air to flow through. This enables the line pressure to automatically reset the AirGuard once the main line break is repaired.



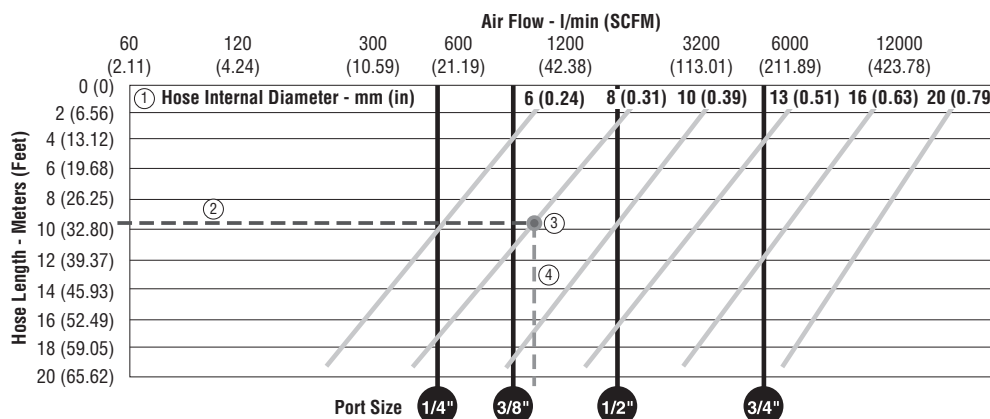
Weight and Dimensions metric (imperial)

Thread Connection	Dimensions mm (inch)			Weight g (oz.)	Max. Inlet Pressure	Temp. Range	Material	P1 Inlet Thread	P2 Outlet Thread	Part Number NPT	Part Number BSP
	A	B	SW								
1/4"	48 (1.89)	-	22 (.87)	30 (1.06)	(18 bar) 255 PSIG	-20°C to 80°C (-4°F to 176°F)	Housing: Aluminum Piston: Polyacetal	Female	Female	P4GAA92	P4GAA12*
1/4"	58 (2.28)	49 (1.93)	22 (.87)	36 (1.27)				Male	Female	P4GBA92	P4GBA12*
3/8"	59 (2.32)	-	28 (1.10)	58 (2.05)				Female	Female	P4GAA93	P4GAA13*
3/8"	71 (2.80)	59 (2.32)	28 (1.10)	62 (2.19)				Male	Female	P4GBA93	P4GBA13*
1/2"	65 (2.56)	-	31 (1.22)	78 (2.75)				Female	Female	P4GAA94	P4GAA14*
1/2"	80 (3.15)	65 (2.56)	31 (1.22)	85 (3.00)				Male	Female	P4GBA94	P4GBA14*
3/4"	76 (2.99)	-	30/36* (1.18/1.42*)	107 (3.77)	(35 bar) 500 PSIG	-20°C to 120°C (-4°F to 248°F)	Housing: Aluminum Piston: Aluminum	Female	Female	P4GAA96	P4GAA16*
1"	100 (3.94)	-	41/50* (1.61/1.97*)	300 (10.58)				Female	Female	P4GAA98	P4GAA18*
2"	130 (5.12)	-	70/80* (2.76/3.15*)	775 (27.34)				Female	Female	P4GAA9C	P4GAA1C*

* Note: BSP Threads Available Upon Request.

How to Select the Optimal Size of an AirGuard

Information based on an inlet pressure of 7 bar (100 PSIG)



- Determine the internal diameter of the hose, tube or pipe being used ① (see specification Hose-internal Diameter in yellow box, yellow diagonal line).
- Determine the length of the hose, tube or pipe ② (Hose length in meters).
- Define the intersection of point a and b, and mark a vertical line downwards. ③ ④ In the example the red/green dot and the green dashed line).
- The next vertical black line, left of the intersection line ④ (example: green dashed) tells the correct AirGuard size (in inches).
- Important: Every flow value to the right of the respective vertical line (black) would activate the AirGuard in case of a bursting hose, pipe or tube. All AirGuard sizes right of the intersection line (green) are too big and will not close up.
- Example: Which air fuse should be used for a hose, pipe or tube bearing 8 mm inner diameter and 10 meters of length - follow the 10 meter line (red ②) to the intersection point (red/green dot ③). Now the next left black line marks the correct size.
- Result: The correct size in our example is the AirGuard 3/8"

Automatic Electrical Drain Valve WDV3



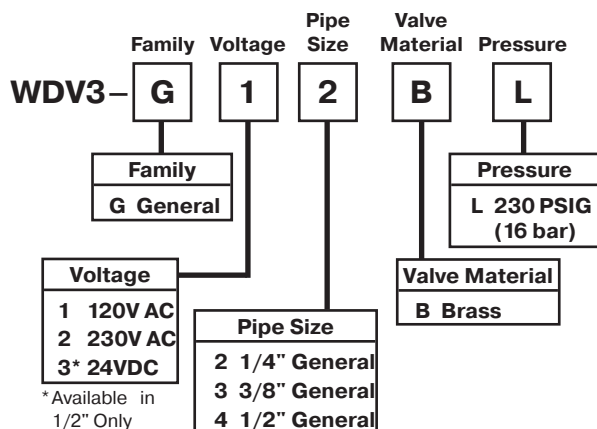
The WDV3 Electrical Drain is designed to remove condensate from compressors, compressed air dryers and receivers up to any size, type or manufacturer.

The WDV3 offers true installation simplicity and it is recognized as the most reliable and best performing condensate drain worldwide. The large orifice in the direct acting valve, combined with its sophisticated timer module ensure many years of trouble-free draining of condensate.

Benefits

- Does Not Air-Lock During Operation
- Compressed Air Systems Up to Any Size
- Also Available In Stainless Steel
- The Direct Acting Valve Is Serviceable
- Suitable for All Types of Compressors
- TEST (Micro-Switch) Feature
- High Time Cycle Accuracy
- Large (4.5mm) Valve Orifice

Ordering Information

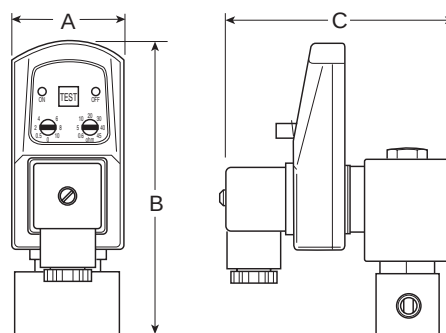


Specifications

Operating Pressure.....	230 PSIG (15,9 bar)
Ambient Operating Range Temperature	34° to 130°F (1.1° to 54°C)
Coil Insulation Class H	340°F (171.1°C)
Voltages AC	115, 230/50-60
Timer:	
Open Time	.5 to 10 sec., Adjustable
Cycle Time	.5 sec. to 45 min., Adjustable
Maximum Current Rating	4mA Max.
Port Size	1/4, 3/8, 1/2 NPT
Weight	1.8 lb. (0.8 kg)

Materials of Construction

Valve Body	Brass / Stainless Steel
Enclosure (NEMA 4)	ABS Plastic
Internal Parts	Brass / Stainless Steel
Sealing Material	FPM (Fluorocarbon)



Model Selection and Dimensions

Model Number	A	B	C
WDV3-G**BL	1.73 (44)	4.53 (115)	3.46 (88)

Zero Air Loss Condensate Drain – ED



Zero air loss condensate drains are designed for economical removal of unwanted water, oil emulsions, and other liquids. These drains will only open when liquid is present and will not allow any compressed air to escape from the system.

Specifications

Operating Pressure 232 PSIG (16 bar)

Ambient Operating Range Temperature 35° to 140°F (1.6° to 60°C)

Voltages

NPT 115/50-60Hz Standard

BSPP 230/50-60Hz & 24VDC Optional

Zero Air Loss Condensate Drains

Port Size (NPT)	Compressor Aftercooler (SCFM)*	Capacity Refrigeration Dryer (SCFM)**	Filter (SCFM)	Drain Capacity Per Day (Gal/Liter)	Model Number	Service Kit †
3/8	—	—	424	6 (22.7)	ED3002N115-K	SKED3000N115
1 x 1/2, 1/8	141	282	1,413	13 (49.2)	ED3004N115-K	SKED3000N115
2 x 1/2, 1/8	247	494	2,472	23 (87.1)	ED3007N115-K	SKED3000N115
2 x 1/2, 1/8	1,059	2,119	10,594	100 (378.5)	ED3030N115-K	SKED3000N115
2 x 1/2, 1/8	3,532	7,063	35,315	330 (1,249.2)	ED3100N115-K	SKED3000N115

* Based on 100 PSI working pressure, air compressor inlet at 77°F (25°C) at 60% RH, air discharge temperature of 95°F (35°C) following the aftercooler, pressure dewpoint of 37°F (2.8°C) after the refrigerated dryer.

** Condensate from aftercooler or refrigerated dryer to be drained upstream – only for residual oil content or small quantities of condensate.

† —

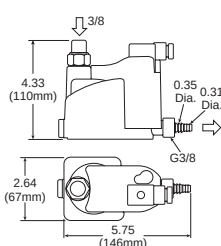
Note: A 6 ft. line cord will be included with each drain.

Where are condensate drains used?

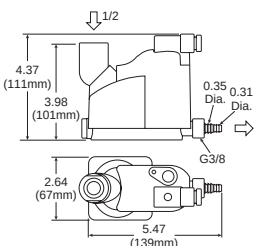
Compressor with Aftercooler	Receiver Tank	Filter	Air Dryer	Drip Leg
Removes the condensate that is collected after the air cools in the aftercooler	Removes the condensate that is collected when the air cools inside of the receiver tank	Removes the condensate that is collected in the filter bowl	Removes the condensate that is collected in the air dryer	Point-of-use applications: removes the condensate from compressed air pipes in a plant

Dimensions

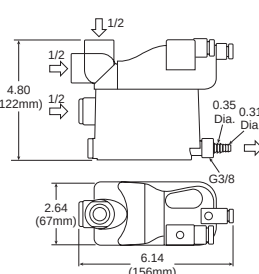
ED3002N115-K



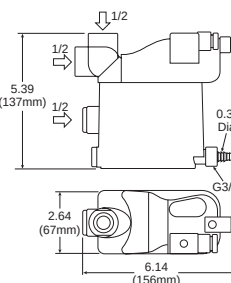
ED3004N115-K



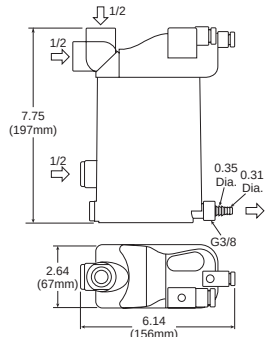
ED3007N115-K



ED3030N115-K



ED3100N115-K



O.S.H.A. Certification — All safety blow guns conform to the requirements of Compressed Air Standards as currently described in the U.S. Bureau of Labor Standards, paragraph 1910.242, when pressurized at the inlet to a maximum of 100 PSIG. Conform to current O.S.H.A. Directive No. 100-1.

Brass Nozzle Blow Guns

Contoured lever or button control both provide a natural, comfortable grip even when used with gloves. Finger guard and hang-up hook for finger protection and quick safe storage. Die cast zinc body, painted finish.

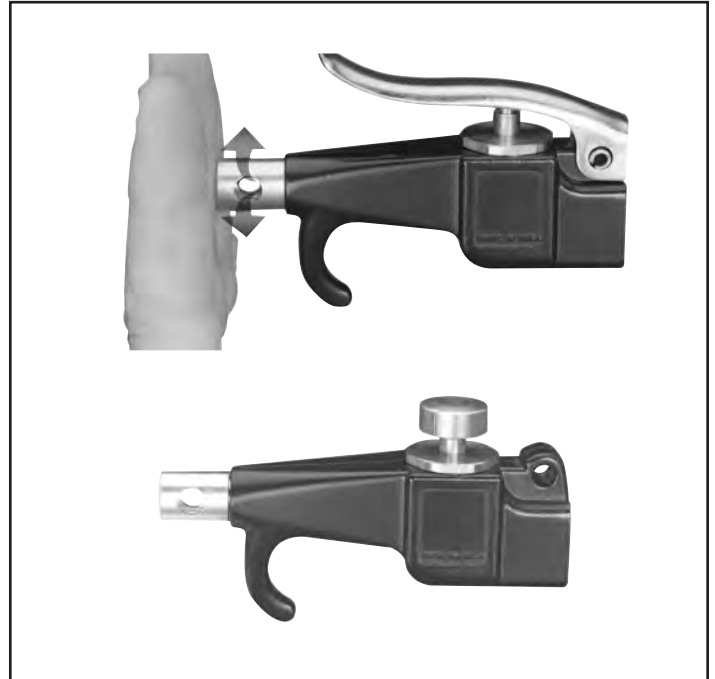
Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0010	1/4"	20

Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0010	1/4"	20

*Based on 100 PSIG inlet pressure.



Vortec FLO-GAIN Blow Guns

A quiet Vortec FLO-GAIN nozzle is combined with a high performance blow gun. Compressed air attains sonic velocity through an adjustable slot and attaches to the exterior surface of the cone shaped nozzle. Settings are shown on a micrometer dial. Sound level of 80 dBA with 80 PSIG inlet. Finger guard and hang-up hook offers desirable finger protection and quick secure storage. Die cast zinc body, painted finish.

Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0900	1/4"	70+

Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0900	1/4"	70+

*Based on 100 PSIG inlet pressure.



G

Airline Accessories

Self-Regulating Blow Gun

Designed with integral self-regulating pressure reducing valve for automatic shut-off when nozzle is blocked. Prevents air pressure buildup over 30 PSIG in compliance with U.S. Dept. of Labor standards.

Air shield aids in protecting the operator against blow back of flying chips of dirt. Designed to operate at less than 90 dBA to comply with government regulations. Die cast zinc body, painted finish.

May be used with nozzle extensions on page G69.

Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 2900	1/4"	10

Performance Data

Inlet Pressure	Blocked Pressure	Sound Level
70 PSIG	17.0 PSIG	79 dBA
100 PSIG	21.0 PSIG	83 dBA
175 PSIG	28.0 PSIG	87 dBA

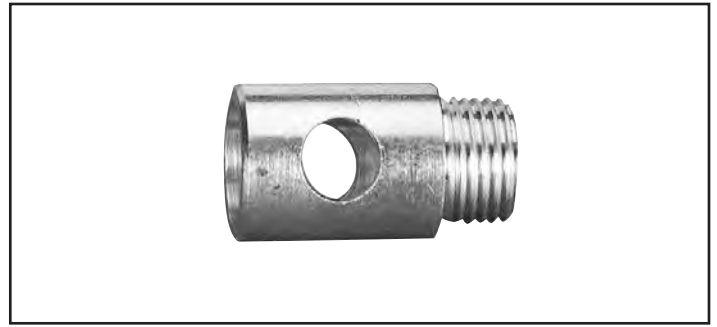
*Based on 100 PSIG inlet pressure.



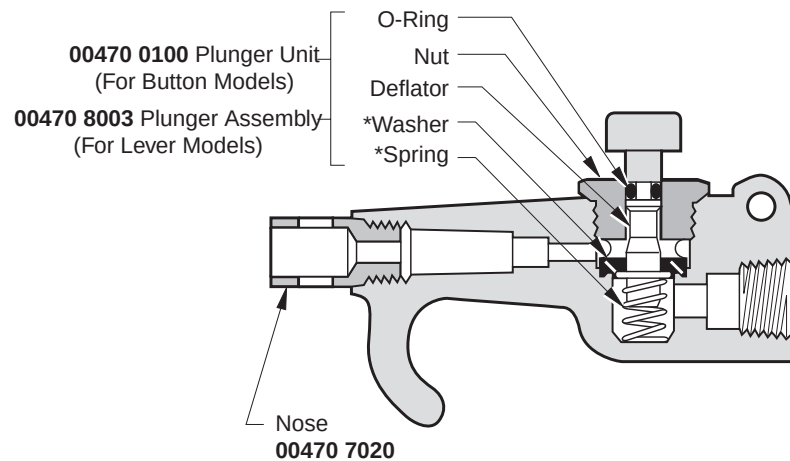
Brass Nozzle

Model No. 00470 7020

General purpose nozzles are supplied as standard on 00470 0010, 00475 0010 and 07184 1000 blow guns. Conform to the requirements of the Williams Steiger Occupational Safety and Health Act of 1970, paragraph 1910.242 when fitted with blow guns pressurized at the inlet to a maximum of 100 PSIG. Conform to O.S.H.A. Directive 100-1.



470 and 475 Series Blow Guns



* Contained in Service Kit No. 00470 0090

G

Airline Accessories

Notes

G

Airline Accessories



Safety Guidelines

Safety Guide For Selecting And Using Pneumatic Division Products And Related Accessories

WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF PNEUMATIC DIVISION PRODUCTS, ASSEMBLIES OR RELATED ITEMS ("PRODUCTS") CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE. POSSIBLE CONSEQUENCES OF FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS INCLUDE BUT ARE NOT LIMITED TO:

- Unintended or mistimed cycling or motion of machine members or failure to cycle
- Work pieces or component parts being thrown off at high speeds.
- Failure of a device to function properly for example, failure to clamp or unclamp an associated item or device.
- Explosion
- Suddenly moving or falling objects.
- Release of toxic or otherwise injurious liquids or gasses.

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

1. GENERAL INSTRUCTIONS

- 1.1. Scope:** This safety guide is designed to cover general guidelines on the installation, use, and maintenance of Pneumatic Division Valves, FRLs (Filters pressure Regulators and Lubricators), Vacuum products and related accessory components.
- 1.2. Fail-Safe:** Valves, FRLs, Vacuum products and their related components can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of associated valves, FRLs or Vacuum products will not endanger persons or property.
- 1.3 Relevant International Standards:** For a good guide to the application of a broad spectrum of pneumatic fluid power devices see: ISO 4414:1998, Pneumatic Fluid Power – General Rules Relating to Systems. See www.iso.org for ordering information.
- 1.4. Distribution:** Provide a copy of this safety guide to each person that is responsible for selection, installation, or use of Valves, FRLs or Vacuum products. Do not select, or use Wilkerson valves, FRLs or vacuum products without thoroughly reading and understanding this safety guide as well as the specific Wilkerson publications for the products considered or selected.
- 1.5. User Responsibility:** Due to the wide variety of operating conditions and applications for valves, FRLs, and vacuum products Wilkerson and its distributors do not represent or warrant that any particular valve, FRL or vacuum product is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:
 - Making the final selection of the appropriate valve, FRL, Vacuum component, or accessory.
 - Assuring that all user's performance, endurance, maintenance, safety, and warning requirements are met and that the application presents no health or safety hazards.
 - Complying with all existing warning labels and / or providing all appropriate health and safety warnings on the equipment on which the valves, FRLs or Vacuum products are used; and,
 - Assuring compliance with all applicable government and industry standards.
- 1.6. Safety Devices:** Safety devices should not be removed, or defeated.
- 1.7. Warning Labels:** Warning labels should not be removed, painted over or otherwise obscured.
- 1.8. Additional Questions:** Call the appropriate Wilkerson technical service department if you have any questions or require any additional information. See the Wilkerson publication for the product being considered or used, or call 269-629-2550, or go to www.wilkersoncorp.com, for telephone numbers of the appropriate technical service department.

2. PRODUCT SELECTION INSTRUCTIONS

- 2.1. Flow Rate:** The flow rate requirements of a system are frequently the primary consideration when designing any pneumatic system. System components need to be able to provide adequate flow and pressure for the desired application.
- 2.2. Pressure Rating:** Never exceed the rated pressure of a product. Consult product labeling, Pneumatic Division catalogs or the instruction sheets supplied for maximum pressure ratings.
- 2.3. Temperature Rating:** Never exceed the temperature rating of a product. Excessive heat can shorten the life expectancy of a product and result in complete product failure.
- 2.4. Environment:** Many environmental conditions can affect the integrity and suitability of a product for a given application. Pneumatic Division products are designed for use in general purpose industrial applications. If these products are to be used in unusual circumstances such as direct sunlight and/or corrosive or caustic environments, such use can shorten the useful life and lead to premature failure of a product.
- 2.5. Lubrication and Compressor Carryover:** Some modern synthetic oils can and will attack nitrile seals. If there is any possibility of synthetic oils or greases migrating into the pneumatic components check for compatibility with the seal materials used. Consult the factory or product literature for materials of construction.
- 2.6. Polycarbonate Bowls and Sight Glasses:** To avoid potential polycarbonate bowl failures:
 - Do not locate polycarbonate bowls or sight glasses in areas where they could be subject to direct sunlight, impact blow, or temperatures outside of the rated range.
 - Do not expose or clean polycarbonate bowls with detergents, chlorinated hydro-carbons, keytones, esters or certain alcohols.
 - Do not use polycarbonate bowls or sight glasses in air systems where compressors are lubricated with fire resistant fluids such as phosphate ester and di-ester lubricants.
- 2.7. Chemical Compatibility:** For more information on plastic component chemical compatibility see Pneumatic Division technical bulletins Tec-3, Tec-4, and Tec-5

- 2.8. Product Rupture:** Product rupture can cause death, serious personal injury, and property damage.
- Do not connect pressure regulators or other Pneumatic Division products to bottled gas cylinders.
 - Do not exceed the maximum primary pressure rating of any pressure regulator or any system component.
 - Consult product labeling or product literature for pressure rating limitations.

3. PRODUCT ASSEMBLY AND INSTALLATION INSTRUCTIONS

- 3.1. Component Inspection:** Prior to assembly or installation a careful examination of the valves, FRLs or vacuum products must be performed. All components must be checked for correct style, size, and catalog number. DO NOT use any component that displays any signs of nonconformance.
- 3.2. Installation Instructions:** Wilkerson published Installation Instructions must be followed for installation of Wilkerson valves, FRLs and vacuum components. These instructions are provided with every Wilkerson valve or FRL sold, or by calling 269-629-2550, or at www.wilkersoncorp.com.
- 3.3. Air Supply:** The air supply or control medium supplied to Valves, FRLs and Vacuum components must be moisture-free if ambient temperature can drop below freezing

4. VALVE AND FRL MAINTENANCE AND REPLACEMENT INSTRUCTIONS

- 4.1. Maintenance:** Even with proper selection and installation, valve, FRL and vacuum products service life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a component failure, and experience with any known failures in the application or in similar applications should determine the frequency of inspections and the servicing or replacement of Pneumatic Division products so that products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.9.
- 4.2. Installation and Service Instructions:** Before attempting to service or replace any worn or damaged parts consult the appropriate Service Bulletin for the valve or FRL in question for the appropriate practices to service the unit in question. These Service and Installation Instructions are provided with every Wilkerson valve and FRL sold, or are available by calling 269-629-2550, or by accessing the Wilkerson web site at www.wilkersoncorp.com.
- 4.3. Lockout / Tagout Procedures:** Be sure to follow all required lockout and tagout procedures when servicing equipment. For more information see: OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – (Lockout / Tagout)
- 4.4. Visual Inspection:** Any of the following conditions requires immediate system shut down and replacement of worn or damaged components:
- Air leakage: Look and listen to see if there are any signs of visual damage to any of the components in the system. Leakage is an indication of worn or damaged components.
 - Damaged or degraded components: Look to see if there are any visible signs of wear or component degradation.
 - Kinked, crushed, or damaged hoses. Kinked hoses can result in restricted air flow and lead to unpredictable system behavior.
 - Any observed improper system or component function: Immediately shut down the system and correct malfunction.
 - Excessive dirt build-up: Dirt and clutter can mask potentially hazardous situations.

Caution: Leak detection solutions should be rinsed off after use.

- 4.5. Routine Maintenance Issues:**
- Remove excessive dirt, grime and clutter from work areas.
 - Make sure all required guards and shields are in place.
- 4.6. Functional Test:** Before initiating automatic operation, operate the system manually to make sure all required functions operate properly and safely.
- 4.7. Service or Replacement Intervals:** It is the user's responsibility to establish appropriate service intervals. Valves, FRLs and vacuum products contain components that age, harden, wear, and otherwise deteriorate over time. Environmental conditions can significantly accelerate this process. Valves, FRLs and vacuum components need to be serviced or replaced on routine intervals. Service intervals need to be established based on:
- Previous performance experiences.
 - Government and / or industrial standards.
 - When failures could result in unacceptable down time, equipment damage or personal injury risk.
- 4.8. Servicing or Replacing of any Worn or Damaged Parts:** To avoid unpredictable system behavior that can cause death, personal injury and property damage:
- Follow all government, state and local safety and servicing practices prior to service including but not limited to all OSHA Lockout Tagout procedures (OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – Lockout / Tagout).
 - Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
 - Disconnect air supply and depressurize all air lines connected to system and Pneumatic Division products before installation, service, or conversion.
 - Installation, servicing, and / or conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
 - After installation, servicing, or conversions air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or if the product does not operate properly, do not put product or system into use.
 - Warnings and specifications on the product should not be covered or painted over. If masking is not possible, contact your local representative for replacement labels.
- 4.9. Putting Serviced System Back into Operation:** Follow the guidelines above and all relevant Installation and Maintenance Instructions supplied with the valve FRL or vacuum component to insure proper function of the system.

Warning: Use Limitations

Wilkerson's warranties are void, and Wilkerson assumes no responsibility for any resulting cost, loss, injury or any other damages whatsoever, with respect to any plastic bowl unit for which a bowl guard is standard equipment if the unit is placed in service without the bowl guard and, except as otherwise specified in writing by Wilkerson, with respect to any Wilkerson products which are used in other than compressed air service. Specific warnings with respect to these and other use limitations appear elsewhere in this catalog.

Wilkerson maintains a policy of ongoing product development and improvement. We therefore reserve the right to change dimensions specification and design without notice.

Do not place plastic bowl unit in service without bowl guard installed.

Plastic bowl units are sold only with bowl guards with the exception to miniature units (C04, F00, L00, & M00). To minimize the danger of flying fragments in the event of plastic bowl failure, the bowl guards should not be removed. If the unit is in service without the bowl guard installed, manufacturer's warranties are void, and the manufacturer assumes no responsibility for any resulting loss.

If the unit has been in service and does not have a bowl guard, order one and install before placing back in service.

Caution

Certain compressor oils, chemicals, household cleaners, solvents, paints and fumes will attack plastic bowls and can cause bowl failure. Do not use near these materials. When bowl becomes dirty replace bowl or wipe only with a clean, dry cloth. Reinstall bowl guard or buy and install a bowl guard. Immediately replace any crazed, cracked, damaged or deteriorated plastic bowl with a bowl or a new plastic bowl and bowl guard.

Caution

Except as otherwise specified by the manufacturer, this product is specifically designed for compressed air service, and use with any other fluid (liquid or gas) is a misapplication. For example, use with or injection of certain hazardous liquids or gases in the system (such as alcohol or liquid petroleum gas) could be harmful to the unit or result in a combustible condition or hazardous external leakage. Before using with fluids other than air, or for non-industrial applications, or for life support systems, consult Wilkerson Operations for written approval.

Caution

Suggested Lubricant

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Some of the Materials that will Attack Polycarbonate Plastic Bowls

Acetaldehyde	Chloroform	Milk of Lime (CaOH)
Acetic acid (conc.)	Cresol	Nitric Acid (conc.)
Acetone	Cyclohexanol	Nitrobenzene
Acrylonitrile	Cyclohexanone	Nitrocellulose Lacquer
Ammonia	Cyclohexene	Phenol
Ammonium Fluoride	Dimethyl Formamide	Phosphorous Hydroxy Chloride
Ammonium Hydroxide	Diozane	Perchlorethylene
Ammonium Sulfide	Ethane tetrachloride	Phosphorous
Anaerobic adhesives	Ethyl Acetate	Propionic Acid
Trichloride and Sealants	Ethyl Ether	Pyridine
Antifreeze	Ethylamine	Sodium Hydroxide
Benzene	Ethylene Chlorohydrin	Sodium Sulfide
Benzoic Acid	Ethylene Dichloride	Styrene
Benzyl Alcohol	Ethylene Glycol	Sulfuric Acid (conc.)
Brake Fluids	Formic Acid (conc.)	Sulphural Chloride
Bromobenzene	Freon (Refrig. & Propell.)	Tetrahydronaphthalene
Butyric Acid	Gasoline (High Aromatic)	Tiophene
Carbolic Acid	Hydrazine	Toluene
Carbon Disulfide	Hydrochloric Acid (conc.)	Turpentine
Carbon Tetrachloride	Lacquer Thinner	Xylene & Others
Caustic Potash Solution	Methyl Alcohol	
Caustic Soda Solution	Methylene Chloride	
Chlorobenzene	Methylene Salicylate	

Trade Names of some Compressor Oils, Rubber Compounds and other Materials that will Attack Polycarbonate Plastic Bowls.

Atlas "Perma-Guard"	National Compound #N11
Buna N	"Nylock" VC-3
Cellulube #150 and #220	Parco #1306 Neoprene
Crylex #5 cement	*Permabond 910
*Eastman 910	Petron PD287
Garlock #98403 (polyurethane)	Prestone
Haskel #568-023	Pydraul AC
Hilgard Co.'s hil phene	Sears Regular Motor Oil
Houghton & Co. oil #1120, #1130 & #1055	Sinclair oil "Lily White"
Houtosafe 1000	Stauffer Chemical FYRQUEL #150
Kano Kroil	Stillman #SR 269-75 (polyurethane)
Keystone penetrating oil #2	Stillman #SR 513-70 (neoprene)
*Loctite 271	Tannergas
*Locite 290	Telar
*Loctite 601	Tenneco anderol #495 & #500 oils
*Loctite Teflon-Sealant	Titon
Marvel Mystery Oil	*Vibra-tite
Minn. Rubber 366Y	Zerex
*When in raw liquid form.	

We cannot possibly list all harmful substances, so check with Mobay or the General Electric office for further information on polycarbonate plastic.

The trade names "EconOmist" and "Flow-Guide" are registered at the United States Patent Office.

"Auto-Fill", "Dial-Air", "Flex-Drain", "Mainliner" and "Whirl-Flo" are tradenames of Wilkerson.

Claims and Shortages: Risk of loss passes to buyer when goods are delivered to the carrier. Inspect all shipments for damage at time of receipt. Claims should be filed by the consignee against the carrier.

Changes: Wilkerson maintains a policy of ongoing product development and improvement. We therefore reserve the right to change dimensions, specifications and design without notice.



PARKER-HANNIFIN CORPORATION
OFFER OF SALE

1. Definitions. As used herein, the following terms have the meanings indicated.

Buyer:	means any customer receiving a Quote for Products.
Goods:	means any tangible part, system or component to be supplied by Seller.
Products:	means the Goods, Services and/or Software as described in a Quote.
Quote:	means the offer or proposal made by Seller to Buyer for the supply of Products.
Seller:	means Parker-Hannifin Corporation, including all divisions and businesses thereof.
Services:	means any services to be provided by Seller.
Software:	means any software related to the Goods, whether embedded or separately downloaded.
Terms:	means the terms and conditions of this Offer of Sale.

2. Terms. All sales of Products by Seller are expressly conditioned upon, and will be governed by the acceptance of, these Terms. These Terms are incorporated into any Quote provided by Seller to Buyer. Buyer's order for any Products whether communicated to Seller verbally, in writing, by electronic data interface or other electronic commerce, shall constitute acceptance of these Terms. Seller objects to any contrary or additional terms or conditions of Buyer. Reference in Seller's order acknowledgement to Buyer's purchase order or purchase order number shall in no way constitute an acceptance of any of Buyer's terms or conditions of purchase. No modification to these Terms will be binding on Seller unless agreed to in writing and signed by an authorized representative of Seller.

3. Price; Payment. The Products set forth in the Quote are offered for sale at the prices indicated in the Quote. Unless otherwise specifically stated in the Quote, prices are valid for thirty (30) days and do not include any sales, use, or other taxes or duties. Seller reserves the right to modify prices at any time to adjust for any raw material price fluctuations. Unless otherwise specified by Seller, all prices are F.C.A. Seller's facility (INCOTERMS 2020). All sales are contingent upon credit approval and full payment for all purchases is due thirty (30) days from the date of invoice (or such date as may be specified in the Quote). Unpaid invoices beyond the specified payment date incur interest at the rate of 1.5% per month or the maximum allowable rate under applicable law.

4. Shipment; Delivery; Title and Risk of Loss. All delivery dates are approximate, and Seller is not responsible for damages resulting from any delay. Regardless of the manner of shipment, delivery occurs and title and risk of loss or damage pass to Buyer, upon placement of the Products with the carrier at Seller's facility. Unless otherwise agreed prior to shipment and for domestic delivery locations only, Seller will select and arrange, at Buyer's sole expense, the carrier and means of delivery. When Seller selects and

arranges the carrier and means of delivery, freight and insurance costs for shipment to the designated delivery location will be prepaid by Seller and added as a separate line item to the invoice. Buyer shall be responsible for any additional shipping charges incurred by Seller due to Buyer's acts or omissions. Buyer shall not return or repackage any Products without the prior written authorization from Seller, and any return shall be at the sole cost and expense of Buyer.

5. Warranty. The warranty for the Products is as follows: (i) Goods are warranted against defects in material or workmanship for a period of twelve (12) months from the date of delivery or 2,000 hours of use, whichever occurs first; (ii) Services shall be performed in accordance with generally accepted practices and using the degree of care and skill that is ordinarily exercised and customary in the field to which the Services pertain and are warranted for a period of six (6) months from the date of completion of the Services; and (iii) Software is only warranted to perform in accordance with applicable specifications provided by Seller to Buyer for ninety (90) days from the date of delivery or, when downloaded by a Buyer or end-user, from the date of the initial download. All prices are based upon the exclusive limited warranty stated above, and upon the following disclaimer: **EXEMPTION CLAUSE; DISCLAIMER OF WARRANTY, CONDITIONS, REPRESENTATIONS: THIS WARRANTY IS THE SOLE AND ENTIRE WARRANTY, CONDITION, AND REPRESENTATION, PERTAINING TO PRODUCTS. SELLER DISCLAIMS ALL OTHER WARRANTIES, CONDITIONS, AND REPRESENTATIONS, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE RELATING TO DESIGN, NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. SELLER DOES NOT WARRANT THAT THE SOFTWARE IS ERROR-FREE OR FAULT-TOLERANT, OR THAT BUYER'S USE THEREOF WILL BE SECURE OR UNINTERRUPTED. UNLESS OTHERWISE AUTHORIZED IN WRITING BY SELLER, THE SOFTWARE SHALL NOT BE USED IN CONNECTION WITH HAZARDOUS OR HIGH RISK ACTIVITIES OR ENVIRONMENTS. EXCEPT AS EXPRESSLY STATED HEREIN, ALL PRODUCTS ARE PROVIDED "AS IS".**

6. Claims; Commencement of Actions. Buyer shall promptly inspect all Products upon receipt. No claims for shortages will be allowed unless reported to Seller within ten (10) days of delivery. Buyer shall notify Seller of any alleged breach of warranty within thirty (30) days after the date the non-conformance is or should have been discovered by Buyer. Any claim or action against Seller based upon breach of contract or any other theory, including tort, negligence, or otherwise must be commenced within twelve (12) months from the date of the alleged breach or other alleged event, without regard to the date of discovery.

7. LIMITATION OF LIABILITY. IN THE EVENT OF A BREACH OF WARRANTY, SELLER WILL, AT ITS OPTION, REPAIR OR REPLACE THE NON-CONFORMING PRODUCT, RE-PERFORM THE SERVICES, OR REFUND THE PURCHASE PRICE PAID WITHIN A REASONABLE PERIOD OF TIME. **IN NO EVENT IS SELLER LIABLE FOR**

08/20

ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING ANY LOSS OF REVENUE OR PROFITS, WHETHER BASED IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL SELLER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCTS.

8. Confidential Information. Buyer acknowledges and agrees that any technical, commercial, or other confidential information of Seller, including, without limitation, pricing, technical drawings or prints and/or part lists, which has been or will be disclosed, delivered or made available, whether directly or indirectly, to Buyer ("Confidential Information"), has been and will be received in confidence and will remain the property of Seller. Buyer further agrees that it will not use Seller's Confidential Information for any purpose other than for the benefit of Seller.

9. Loss to Buyer's Property. Any tools, patterns, materials, equipment or information furnished by Buyer or which are or become Buyer's property ("Buyer's Property"), will be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer ordering the Products manufactured using Buyer's Property. Furthermore, Seller shall not be responsible for any loss or damage to Buyer's Property while it is in Seller's possession or control.

10. Special Tooling. "Special Tooling" includes but is not limited to tools, jigs, fixtures and associated manufacturing equipment acquired or necessary to manufacture Goods. Seller may impose a tooling charge for any Special Tooling. Such Special Tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in the Special Tooling, even if such Special Tooling has been specially converted or adapted for manufacture of Goods for Buyer and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller has the right to alter, discard or otherwise dispose of any Special Tooling or other property owned by Seller in its sole discretion at any time.

11. Security Interest. To secure payment of all sums due from Buyer, Seller retains a security interest in all Products delivered to Buyer and, Buyer's acceptance of these Terms is deemed to be a Security Agreement under the Uniform Commercial Code. Buyer authorizes Seller as its attorney to execute and file on Buyer's behalf all documents Seller deems necessary to perfect Seller's security interest.

12. User Responsibility. Buyer, through its own analysis and testing, is solely responsible for making the final selection of the Products and assuring that all performance, endurance, maintenance, safety and warning requirements of the application of the Products are met. Buyer must analyze all aspects of the application and follow applicable industry standards, specifications, and any technical information provided with the Quote or the Products, such as Seller's instructions, guides and specifications. If Seller provides options of or for Products based upon data or specifications provided by Buyer, Buyer is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the Products. In the event Buyer is not the end-user

of the Products, Buyer will ensure such end-user complies with this paragraph.

13. Use of Products, Indemnity by Buyer. Buyer shall comply with all instructions, guides and specifications provided by Seller with the Quote or the Products. **Unauthorized Uses.** If Buyer uses or resells the Products in any way prohibited by Seller's instructions, guides or specifications, or Buyer otherwise fails to comply with Seller's instructions, guides and specifications, Buyer acknowledges that any such use, resale, or non-compliance is at Buyer's sole risk. Further, Buyer shall indemnify, defend, and hold Seller harmless from any losses, claims, liabilities, damages, lawsuits, judgments and costs (including attorney fees and defense costs), whether for personal injury, property damage, intellectual property infringement or any other claim, arising out of or in connection with: (a) improper selection, design, specification, application, or any misuse of Products; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller's use of patterns, tools, equipment, plans, drawings, designs, specifications or other information or things furnished by Buyer; (d) damage to the Products from an external cause, repair or attempted repair by anyone other than Seller, failure to follow instructions, guides and specifications provided by Seller, use with goods not provided by Seller, or opening, modifying, deconstructing, tampering with or repackaging the Products; or (e) Buyer's failure to comply with these Terms. Seller shall not indemnify Buyer under any circumstance except as otherwise provided in these Terms.

14. Cancellations and Changes. Buyer may not cancel or modify, including but not limited to movement of delivery dates for the Products, any order for any reason except with Seller's written consent and upon terms that will indemnify, defend and hold Seller harmless against all direct, incidental and consequential loss or damage and any additional expense. Seller, at any time, may change features, specifications, designs and availability of Products.

15. Limitation on Assignment. Buyer may not assign its rights or obligations without the prior written consent of Seller.

16. Force Majeure. Seller is not liable for delay or failure to perform any of its obligations by reason of events or circumstances beyond its reasonable control. Such circumstances include without limitation: accidents, labor disputes or stoppages, government acts or orders, acts of nature, pandemics, epidemics, other widespread illness, or public health emergency, delays or failures in delivery from carriers or suppliers, shortages of materials, war (whether declared or not) or the serious threat of same, riots, rebellions, acts of terrorism, fire or any reason whether similar to the foregoing or otherwise. Seller will resume performance as soon as practicable after the event of force majeure has been removed. All delivery dates affected by force majeure shall be tolled for the duration of such force majeure and rescheduled for mutually agreed dates as soon as practicable after the force majeure condition ceases to exist. Force majeure shall not include financial distress, insolvency, bankruptcy, or other similar conditions affecting one of the parties, affiliates and/or sub-contractors.

08/20

17. Waiver and Severability. Failure to enforce any provision of these Terms will not invalidate that provision; nor will any such failure prejudice either party's right to enforce that provision in the future. Invalidation of any provision of these Terms shall not invalidate any other provision herein and, the remaining provisions will remain in full force and effect.

18. Termination. Seller may terminate any agreement governed by or arising from these Terms for any reason and at any time by giving Buyer thirty (30) days prior written notice. Seller may immediately terminate, in writing, if Buyer: (a) breaches any provision of these Terms, (b) becomes or is deemed insolvent, (c) appoints or has appointed a trustee, receiver or custodian for all or any part of Buyer's property, (d) files a petition for relief in bankruptcy on its own behalf, or one is filed against Buyer by a third party, (e) makes an assignment for the benefit of creditors; or (f) dissolves its business or liquidates all or a majority of its assets.

19. Ownership of Software. Seller retains ownership of all Software supplied to Buyer hereunder. In no event shall Buyer obtain any greater right in and to the Software than a right in the nature of a license limited to the use thereof and subject to compliance with any other terms provided with the Software.

20. Indemnity for Infringement of Intellectual Property Rights. Seller is not liable for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights ("Intellectual Property Rights") except as provided in this Section. Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on a third party claim that one or more of the Products sold hereunder infringes the Intellectual Property Rights of a third party in the country of delivery of the Products by Seller to Buyer. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of any such claim, and Seller having sole control over the defense of the claim including all negotiations for settlement or compromise. If one or more Products sold hereunder is subject to such a claim, Seller may, at its sole expense and option, procure for Buyer the right to continue using the Products, replace or modify the Products so as to render them non-infringing, or offer to accept return of the Products and refund the purchase price less a reasonable allowance for depreciation. Seller has no obligation or liability for any claim of infringement: (i) arising from information provided by Buyer; or (ii) directed to any Products provided hereunder for which the designs are specified in whole or part by Buyer; or (iii) resulting from the modification, combination or use in a system of any Products provided hereunder. The foregoing provisions of this Section constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for claims of infringement of Intellectual Property Rights.

21. Governing Law. These Terms and the sale and delivery of all Products are deemed to have taken place in, and shall be governed and construed in accordance with, the laws of the State of Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of

Cuyahoga County, Ohio with respect to any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.

22. Entire Agreement. These Terms, along with the terms set forth in the main body of any Quote, forms the entire agreement between the Buyer and Seller and constitutes the final, complete and exclusive expression of the terms of sale and purchase. In the event of a conflict between any term set forth in the main body of a Quote and these Terms, the terms set forth in the main body of the Quote shall prevail. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter shall have no effect. These Terms may not be modified unless in writing and signed by an authorized representative of Seller.

23. Compliance with Laws. Buyer agrees to comply with all applicable laws, regulations, and industry and professional standards, including those of the United States of America, and the country or countries in which Buyer may operate, including without limitation the U.S. Foreign Corrupt Practices Act ("FCPA"), the U.S. Anti-Kickback Act ("Anti-Kickback Act"), U.S. and E.U. export control and sanctions laws ("Export Laws"), the U.S. Food Drug and Cosmetic Act ("FDCA"), and the rules and regulations promulgated by the U.S. Food and Drug Administration ("FDA"), each as currently amended. Buyer agrees to indemnify, defend, and hold harmless Seller from the consequences of any violation of such laws, regulations and standards by Buyer, its employees or agents. Buyer acknowledges that it is familiar with all applicable provisions of the FCPA, the Anti-Kickback Act, Export Laws, the FDCA and the FDA and certifies that Buyer will adhere to the requirements thereof and not take any action that would make Seller violate such requirements. Buyer represents and agrees that Buyer will not make any payment or give anything of value, directly or indirectly, to any governmental official, foreign political party or official thereof, candidate for foreign political office, or commercial entity or person, for any improper purpose, including the purpose of influencing such person to purchase Products or otherwise benefit the business of Seller. Buyer further represents and agrees that it will not receive, use, service, transfer or ship any Products from Seller in a manner or for a purpose that violates Export Laws or would cause Seller to be in violation of Export Laws. Buyer agrees to promptly and reliably provide Seller all requested information or documents, including end-user statements and other written assurances, concerning Buyer's ongoing compliance with Export Laws.



Pneumatic Division
8676 E. M89
P.O. Box 901
Richland, MI 49083 USA

Applications Engineering

Phone: 877-321-4736 Option #2
E-mail: pdn.technical@support.parker.com

Customer Support

Phone: 877-321-4736 Option #1
E-mail: wilkerson_sales@parker.com

Catalog 9EM-TK-190-5 (Updated March 2025)

WILKERSON®