



SILENCERS							
Port Size	Thread Type	Model Number		Avg. C _v	Dimensions inches (mm)		Weight lb (kg)
		NPT Threads	R/Rp Threads		Length	Width	
1/8	Male	5500A1003	D5500A1003	1.2	0.9 (21)	2.0 (51)	0.1 (0.1)
1/4	Male	5500A2003	D5500A2003	2.1	0.9 (21)	2.2 (55)	0.1 (0.1)
3/8	Male	5500A3013	D5500A3013	2.7	0.9 (21)	2.2 (55)	0.1 (0.1)
		5500A3003	D5500A3003	4.3	1.3 (32)	3.5 (88)	0.2 (0.1)
1/2	Male	5500A4003	D5500A4003	4.7	1.3 (32)	3.6 (91)	0.2 (0.1)
3/4	Male	5500A5013	D5500A5013	5.1	1.3 (32)	3.6 (92)	0.2 (0.1)
		5500A5003	D5500A5003	11.5	2.0 (51)	5.3 (135)	0.6 (0.3)
1	Male	5500A6003	D5500A6003	14.6	2.0 (51)	5.4 (138)	0.6 (0.3)
1 1/4	Male	5500A7013	D5500A7013	16.4	2.0 (51)	5.5 (140)	0.6 (0.3)
	Female	5500A7001	D5500A7001	24	2.5 (64)	5.7 (144)	1.0 (0.5)
1 1/2	Female	5500A8001	D5500A8001	29.9	2.5 (64)	5.7 (144)	1.0 (0.5)
2	Female	5500B9001	D5500B9001	34.2	3.0 (76)	6.6 (168)	1.5 (0.7)
2 1/2	Female	5500A9002	D5500A9002	103.7	4.0 (102)	5.7 (145)	2.9 (1.4)

Pressure Range: 0 to 290 psig (0 to 20 bar) maximum. **Flow Media:** Filtered air.



Port size
1/8 thru 2



Port size 2 1/2

Stainless Steel SILENCERS							
Port Size	Thread Type	Model Number		Avg. C _v	Dimensions inches (mm)		Construction
		NPT Threads	R/Rp Threads		Length	Width	
1/4	Male	5500B2004	D5500B2004	1.44	1.75 (44.5)	0.56 (14.2)	Stainless steel
1/2	Male	5500B4004	D5500B4004	3.01	2.75 (69.7)	0.87 (22.1)	
1	Male	5500B6004	D5500B6004	10.41	3.87 (98.3)	1.31 (33.3)	NPT - Stainless steel R - Nickel plated cold rolled steel Nickel plated cold rolled steel
2	Male	5500A9004	D5500A9004	28.11	5.50 (139.7)	2.37 (60.2)	

Supplied with a standard pipe thread fitting for attaching directly to the exhaust ports of air-operated equipment.

Pressure Range: 0 to 175 psig (0 to 12.3 bar) maximum. **Flow Media:** Filtered air.



SILENCERS for Stainless Steel L-O-X® Air Entry Assemblies							
Port Size	Thread Type	Model Number		Avg. C _v	Dimensions inches (mm)		Description
		NPT Threads	BSP Threads		Length	Width	
1/4	Male	5500A2005	D5500A2005	1.5	1.50 (38)	0.67 (17)	Pressure Range: 0 to 125 psig (0 to 8.6 bar) maximum. Seals: Nitrile.
1/2	Male	5500A4005	D5500A4005	3.5	2.17 (55)	0.94 (24)	
1	Male	5500A6005	D5500A6005	5.7	2.95 (75)	1.41 (36)	

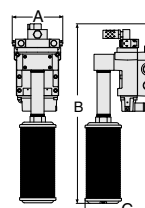


Noise-Reduction SILENCERS for DM ¹ & DM ^{2®} Series C Double Valves								
Valve Model	Basic Size	Kit Number*		Flow scfm	Dimensions inches (mm)			
		NPT Threads	R/Rp Threads		A	B (NPT)	B (R)	C
DM Series C	2	2324H77	2329H77	800 (378)	4.34 (110.2)	19.06 (484.1)	21.40 (543.6)	7.27 (184.7)
	4	2324H77	2329H77	800 (378)	4.34 (110.2)	19.06 (484.1)	21.40 (543.6)	7.27 (184.7)
	8	2325H77	2329H77	800 (378)	5.41 (137.4)	21.18 (538.0)	23.52 (597.4)	8.41 (213.6)
	12	2326H77	2330H77	2080 (982)	6.74 (117.2)	25.85 (656.6)	28.20 (716.3)	10.66 (270.8)
	30	2327H77	2331H77	7200 (3398)	9.85 (250.2)	41.55 (1055.4)	41.55 (1055.4)	13.47 (342.1)
Pressure Range: 125 psig (8.6 bar) maximum.								
* Kits include all plumbing required for installation.								
Reduces the Exponentially Perceived Noise (EPNdB), Impact noise reduction in the 35–40 dB range Recommended for air exhaust applications for pressures up to 125 psig (8.6 bar) Pressure Range – 125 psig (8.6 bar) maximum								

Pressure Range: 125 psig (8.6 bar) maximum.

* Kits include all plumbing required for installation.

Reduces the Exponentially Perceived Noise (EPNdB), Impact noise reduction in the 35–40 dB range
Recommended for air exhaust applications for pressures up to 125 psig (8.6 bar)
Pressure Range – 125 psig (8.6 bar) maximum



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Noise-Reduction SILENCERS for DM ² ® Series D Double Valves						
Valve Basic Size	Thread Type	Kit Number*#	Flow scfm	Dimensions inches (mm)		Description
				Height	Width	
4	NPT	2324H77	800 (378)	19.1 (484)	4.4 (110)	Reduces the Exponentially Perceived Noise (EPNdB), Impact noise reduction in the 35–40 dB range Recommended for air exhaust applications for pressures up to 125 psig (8.6 bar) Pressure Range – 125 psig (8.6 bar) maximum
	BSPT	2329H77	800 (378)	21.4 (544)	4.4 (110)	
8	NPT	2325H77	800 (378)	21.2 (538)	5.4 (138)	
	BSPT	2330H77	800 (378)	23.5 (598)	5.4 (138)	
12	NPT	2326H77	2080 (982)	25.9 (657)	6.8 (117)	
	BSPT	2331H77	2080 (982)	28.2 (716)	6.8 (117)	
30	NPT	2327H77	7200 (3398)	41.6 (1056)	9.9 (250)	
	BSPT	2332H77				

* Kits include all plumbing required for installation.
Exhaust flange kit required, see below ordering information.



Exhaust Flange Kits for Noise Reduction Silencers	Valve Basic Size	Port Size	Kit Number		Used when installing noise reduction silencers
			NPT Threads	G Threads	
	4	1	726B25	D276B25	
	8	1	617B25	D617B25	
	12	1½	619B25	D619B25	
	30	2½	621B25	D621B25	

Electrical CONNECTORS & CORD Sets

Connection Type	EN 175301-803 Connector		Fitting Connection	Cord Type/ Termination		Length meters (feet)	Cord Diameter	Model Number			Cord Quantity
	Option	Form		End 1	End 2			Without Light	Lighted Connector		
									24 V DC	120 V AC	
Solenoid	Connector Only	A	—	—	—	—	—	937K87	936K87-W	936K87-Z	—
			1/2" NPT conduit	—	—	—	—	723K77	724K77-W	724K77-Z	—
		B	—	—	—	—	—	372K77	328K77-W	328K77-Z	—
		C						2452K77	2453K77-W	2453K77-Z	
	Prewired Connector	A	—	Connector	Flying leads	2 (6.5)	6-mm	721K77	720K77-W	720K77-Z	1
							10-mm	371K77	383K77-W	383K77-Z	1
						5 (16.4)	—	2243H77	—	—	2
							10 (32.8)	—	2244H77	—	—
		B	—	Connector	Flying leads	2 (6.5)		10-mm	266K77	267K77-W	267K77-Z
		C	—	Connector	Flying leads	2 (6.5)	5-mm	—	2476K77-W	2476K77-Z	1
						3 (10)	8-mm	2449K77	2450K77-W	2450K77-Z	1



CAUTIONS: Do not use electrical connectors with surge suppressors, as this may increase valve response time when de-actuating the solenoids.

PRESSURE Indicators

Pop-Up (Visual) Indicator	Model Number	Port Threads	May be installed on all valves with pressure sensing port. Provides a means to verify the release of downstream pressure to next obstruction.
	988A30	1/8 NPT	



Stainless Steel Visual Indicator	Model Number	Port Threads	Dimensions inches (mm)		Weight lb (kg)	
			A	B		
	1155H30	1/8 NPT	2.33 (59.3)	1.00 (25.4)	0.22 (0.1)	

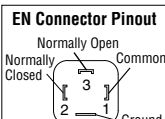
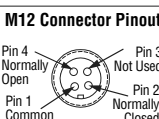

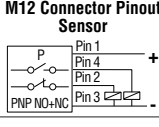
316 Stainless Steel Body, Internals and Springs, Nitrile Seals
Visual Indicator piston, Acetal; Visual Indicator assembly, Acetal with acrylic lens



Status Indicator	Model Number	The Status Indicator pressure switch actuates when the valve is in a ready-to-run condition and de-actuates when the valve is in a lockout condition or when the inlet air pressure has been removed.
	670B94	

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

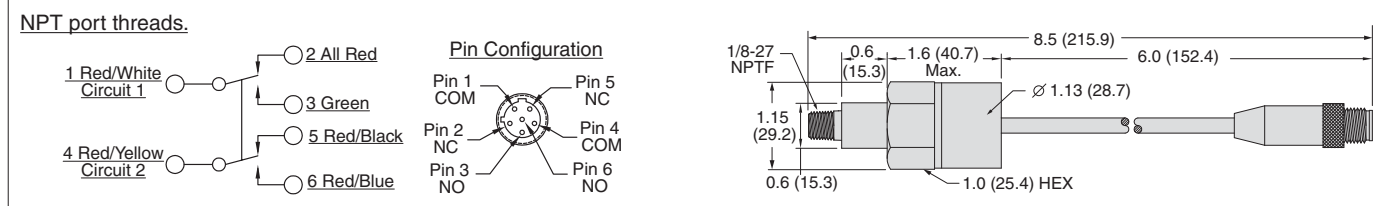
PRESSURE SWITCHES For Verification Of Downstream Pressure Release

Pressure Switch Type	Connection Type	Model Number	Port Threads	EN Connector Pinout	M12 Connector Pinout
Pressure Switches (Electrical) for Energy Release Verification	EN 175301-803 Form A	586A86	1/8 NPT		
	Pressure Switch M12	1153A30	M10x1		
	Solid State Pressure Sensor M12	1335B30W			
Redundant Downstream Feedback Switch for Energy Release Verification	EN 175301-803 Form A	RC026-13	3/8 NPT		
Factory preset, 5 psi (0.3) - falling					

May be installed on all valves with pressure sensing port.
Provides means to verify the release of downstream pressure to next obstruction.



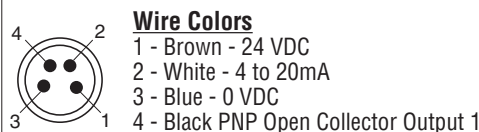
Stainless Steel Pressure Switch	Inlet Port Size	Model Number	Weight lb (kg)
	1/8	1162A30	0.23 (.01)
316 Stainless Steel Body, Nitrile Seals, DPDT (Double-Pole Double-Throw Switch) Factory preset 5 psi (falling)			




Digital PRESSURE TRANSDUCER For Digital Pressure Readout

Digital Pressure Transducer	Threads	Model Number	Pressure Range psig (bar)	Description			
				Electrical Output	Electrical Connection	Pressure Port Size/Type	Weight lb (Kg)
	NPT	760B94	0 (0) to 145 (10)	(1) PNP with (1) 4-20ma	M8, 4 Pin	1/8 NPT male	0.099 (0.045)
	G	D760B94					
	Analog 4-20mA Output, and Transistor Switching Output.						

Sensor Pinout with Analog Output



Pressure GAUGES

Pressure Gauges (Center Back Mounting)	Type/Material	Port Size	Model Number		Pressure Range psig (bar)	Case Diameter inches (mm)	
			NPT Threads	G Threads			
	Standard Aluminum	1/8	5400A1002	D5400A1002	0-160 (0-11)	1.7 (43)	
		1/4	5400A2010	D5400A2010	0-60 (0-4)	2.0 (51)	
		1/4	5400A2011	D5400A2011	0-200 (0-14)	2.0 (51)	
		1/4	5400A2012	D5400A2012	0-300 (0-20)	2.0 (51)	
	Liquid Filled Stainless Steel	1/4	5400A2014	D5400A2014	0-160 (0-11)	2.5 (64)	
		1/4	5400A2015*	D5400A2015*	0-160 (0-11)	2.0 (51)	


* Green shade between 40-70 psi (2.7-4.8 bar).



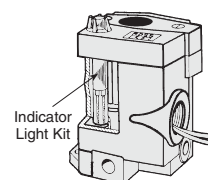
Multiple Lock-out Device	Model Number	For use with any ROSS model valve with L-O-X® capability. Allows use of multiple lockout devices on a single energy isolation device.
	356A30	






INDICATOR Light Kits for valves with Solenoid Controlled Pacer Pilot

Indicator Light Kits for 27 & 21 Series and SV27 & SV27 PO Check Valves	Kit Number			Indicator Light 
	24 volts DC	110-120 volts AC 50-60 Hz	220 volts 50-60 Hz	
	862K87-W	862K87-Z	862K87-Y	

To visually verify valve operation indicator lights are available in kit form. The indicator light extends through the solenoid or pilot cover and is illuminated when the solenoid is energized. Such lights are standard on double solenoid valves. Indicator light kit is available for single solenoid models.



Manual Override Kits	Flush Button			Extended Button			Extended Button with Palm		
	Locking Type	Kit Number		Locking Type	Kit Number		Locking Type	Kit Number	
	Non-Locking	790K87		Non-Locking	791K87		Non-Locking	984H87	
	Locking	792K87		Locking	—		Locking	—	

Flush flexible manual overrides are standard on single solenoid models. Double solenoid models have flush metal-button overrides. Both types are non-locking. Each of the buttons in the override kits below is made of metal and is spring-returned. The locking type button, however, can be kept in the actuated position by turning the slot in the top of the button with a screwdriver.

CONNECTORS & CORD Sets

Connection Type	Connector Option	Connector Form	Fitting Connection	Cord Type/Termination		Length meters (feet)	Cord Diameter	Model Number		Cord Quantity
				End 1	End 2			Without Light	Lighted Connector 24 Volts DC	
Solenoid	Connector Only	EN 175301-803 Form A	–	–	–	–	–	937K87	936K87-W	–
			1/2" NPT conduit	–	–	–	–	723K77	724K77-W	–
	Prewired Connector	EN 175301-803 Form A	–	Connector	Flying leads	2 (6.5)	6-mm	721K77	720K77-W	1
						5 (16.4)	–	2243H77	–	2
						10 (32.8)	–	2244H77	–	2
Sensor	Prewired Connector	M12 5-pin, straight A-coded	–	Female	Flying leads	5 (16.4)	–	2644B77	–	2
				Female	Male	5 (16.4)	–	2645B77	–	2
				Female	Flying leads	10 (32.8)	–	2370B77	–	2
				Female	Male	10 (32.8)	–	2371B77	–	2



CAUTIONS: Do not use electrical connectors with surge suppressors, as this may increase valve response time when de-actuating the solenoids.



Mounting Screws for BANTAM Models

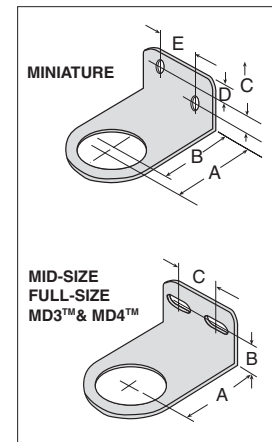
Usage Models	Kit Number
BANTAM	859K77

BANTAM models mounts with long screws that extend through end plates.

Mounting Brackets for Regulators and Integrated Filter/Regulators

Regulators and integrated filter/regulators can be mounted to a surface with a bracket that attaches to the regulator. Brackets and mounting panel nuts can be ordered separately or in a kit which includes both bracket and mounting panel nut.

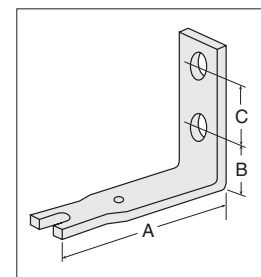
Usage Models	Model Number			Dimensions inches (mm)					
	Kit	Bracket	Panel Nut	A	B	C	D	E	Panel Mounting Hole Diameter
MINIATURE	873K77	872K77	874K77	1.375 (35)	1.125 (29)	0.31 (8)	0.31 (8)	0.69 (17)	1.19 (30)
MID-SIZE	876K77	875K77	877K77	2.38 (60)	1.00 (25)	1.50 (38)	—	—	1.56 (40)
MD3™	R-A127-11	—	R-127-11	2.38 (60)	1.00 (25)	1.50 (38)	—	—	2.06 (52)
FULL-SIZE, MD4™	879K77	878K77	880K77						



Modular Mounting Brackets for Filters, Regulators, Lubricators, FRL's, or Clean Air Packages

Two L-shaped metal brackets as shown at the right can be used for wall mounting of modular FRLs or Clean Air Packages. A single bracket can be used to mount individual filters or lubricators. Kits include two brackets and four screws for attaching the brackets to the modules.

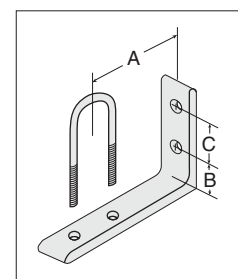
Usage Models	Kit Number	Dimensions inches (mm)			
		A	B	C	D
MID-SIZE & FULL-SIZE	915K77	3.0 (76)	0.88 (22)	1.00 (25)	1.20 (31)



FRLs In-line Mounting Pipe Brackets

Two pipe brackets can be used for wall mounting of FRLs assemblies that use pipe nipples to join the components. The bracket kits listed below include two sets of brackets.

Nipple Size	Kit Number	Dimensions inches (mm)		
		A	B	C
1/4	887K77	2.72 (28)	0.50 (13)	1.00 (25)
3/8	888K77			
1/2	889K77			
3/4	890K77	3.69 (94)	1.13 (29)	1.25 (32)
1	891K77			



Bracket Assembly Kit for HIGH-RELIEF Pilot Operated Regulator

High-Relief Pilot Operated Regulator with 1/4- thru 1 1/4 inch ports can be mounted to a vertical surface using a bracket assembly kit.

Kit Number	R-A37-381
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IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

MID-SIZE and FULL-SIZE Units

The modular designs of the MID-SIZE and FULL-SIZE series offer maximum flexibility in customizing FRLs assemblies. As shown at the right, connector kits are required to interconnect units. Various port kits (shown below) can be used to connect the assemblies to the inlet and outlet piping. Note that all FRLs components have threaded ports so that conventional pipe fittings may be used where desired.

Female Port Block

Used to connect to piping at inlet or outlet.

Port Size	Model Number	
	NPTF Threads	G Threads
1/4	897K77	D897K77
3/8	898K77	D898K77
1/2	899K77	D899K77
3/4	900K77	D900K77



Male Port Block

Used to connect modular to non-modular units.

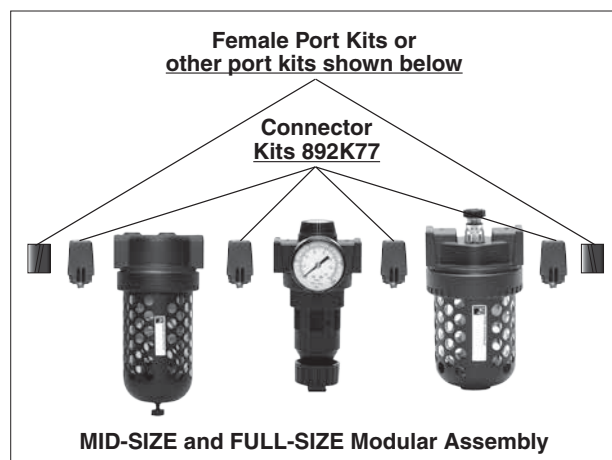
Port Size	Model Number	
	NPTF Threads	G Threads
1/4	893K77	D893K77
3/8	894K77	D894K77
1/2	895K77	D895K77
3/4	896K77	D896K77



Connector Kit

Used to connect units to one another as well as to any of the ports shown on this page.

Kit Number	892K77
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BANTAM Units

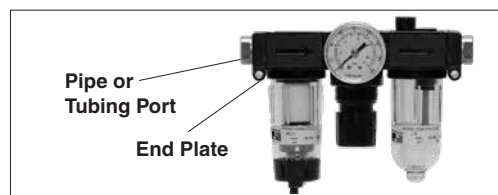
BANTAM modular units use end plates secured with screws to hold the pipe or tubing ports (see below), and also to serve as mounting brackets. Short screws are used to secure the end plates when a single BANTAM unit is used. If two or more units are combined, long screws extend through an end plate and thread into the next unit.

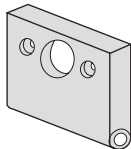
Screw kits required are as follows:

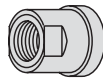
Single Unit: Two short screw kits.

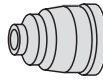
Two-Unit Combination: One each short screw kit and long screw kit.

Three-Unit Combination: Two long screw kits.



Pipe Ports		
Kit Description	Model Number	
END PLATE (1)	857K77	
Short Screw (2)	858K77	
Long Screw (2)	859K77	
Small O-Ring (for inlet or mating ports)	860K77	
Large O-Ring (for outlet or mating ports)	861K77	

Pipe Ports		
Port Size	Model Number	
1/8 NPTF	862K77	
1/4 NPTF	863K77	
1/8 BSPP	D864K77	
1/4 BSPP	D865K77	

Tube Ports		
Port Size	Model Number	
1/4	866K77	
3/8	867K77	
4 mm	868K77	
6 mm	869K77	
8 mm	870K77	
10 mm	871K77	

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

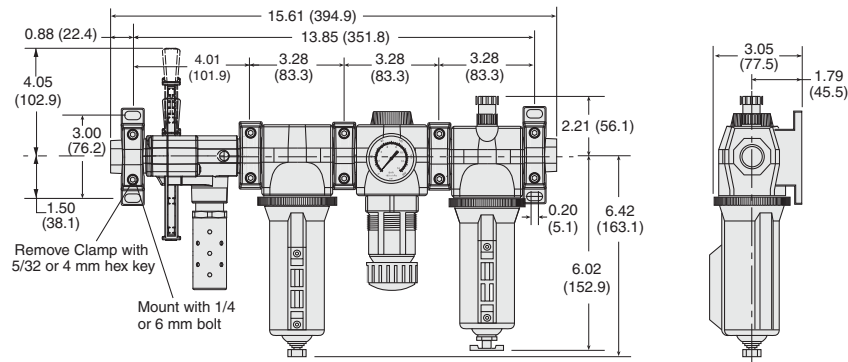
Modular Assemblies

Accessories: Clamp, Brackets, End Ports & Port Blocks

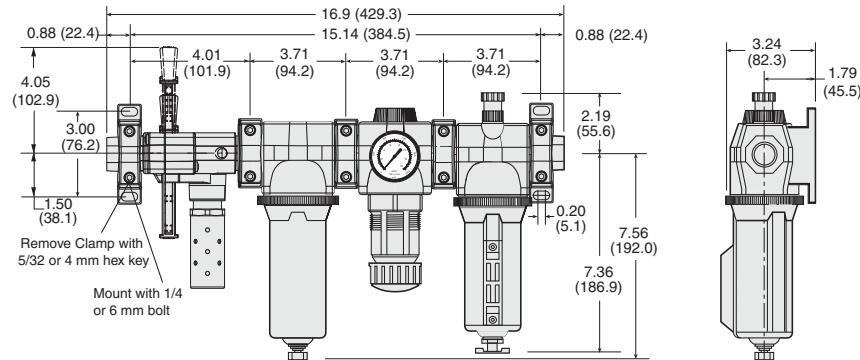
MD Series

Dimensions: inches (mm)

MD3™ Series



MD4™ Series



Mounting Brackets & Clamp for Module Connections

Two brackets are normally used to mount an FRL to a vertical surface. The mounting bracket attaches to the module connecting clamp (see above) with a single screw. Each bracket then employs two bolts (1/4" or 6mm) to connect the assembly to the mounting surface. Specially designed clamps provide a quick and easy assembly or disassembly of MD3™ modules. Two Allen-Head bolts quickly tighten or loosen the clamp using a 5/32 or 4mm hex key. The clamp contains a plate carrying two O-rings to provide positive sealing between modules.



Bracket, Screw, and Clamp



Module Connecting Clamp



Mounting Bracket

Mounting Brackets & Clamp for Module Connections

Description	Model Number
Bracket and Screw	R-A118-103
Module Connecting Clamp	R-A118-105
Bracket, Screw, and Clamp	R-A118-105M

Male and Female End Ports

Either male or female end ports can be attached to threaded inlet and outlet lines. This allows all modules of an FRL assembly to be removed easily and quickly without having to unthread the end modules. The end ports are attached to the modules with clamps (see at left). End ports can be included in an assembled FRL or ordered separately by the following model numbers:

End Ports				
Type	Port Size	Model Number		
		NPTF Threads	G Threads	
Female	1/4	R-118-100-2	R-118-100-2W	
	3/8	R-118-100-3	R-118-100-3W	
	1/2	R-118-100-4	R-118-100-4W	
	3/4	R-118-100-6	R-118-100-6W	
Male	1/4	R-118-109-2F	R-118-109-2FW	
	3/8	R-118-109-3F	R-118-109-3FW	
	1/2	R-118-109-4F	R-118-109-4FW	
	3/4	R-118-109-6F	R-118-109-6FW	

Extra Port Blocks


An extra port block can be placed between modules to provide two auxiliary 1/4 NPTF ports. Its mounting position can be rotated to obtain the most convenient operating orientation. If only one auxiliary port is to be used, the unused port must be closed with a pipe plug. (The inlet and outlet are not threaded.)

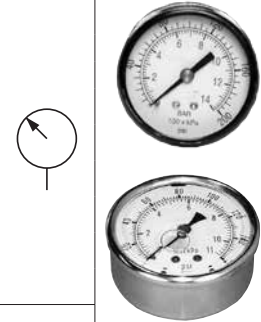
Port Size	Model Number	
	NPTF Threads	G Threads
1/4	R-118-106-2	R-118-106-2W
3/8	R-118-106-3	R-118-106-3W
1/2	R-118-106-4	R-118-106-4W



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Analog Pressure Gauges

Pressure Gauges (Center Back Mounting)	Type/Material	Port Size	Model Number		Pressure Range psig (bar)	Case Diameter inches (mm)	
			Thread				
			NPT	G			
	Standard Aluminum	1/8	5400A1002	D5400A1002	0-160 (0-11)	1.7 (43)	
		1/4	5400A2010	D5400A2010	0-60 (0-4)	2.0 (51)	
		1/4	5400A2011	D5400A2011	0-200 (0-14)	2.0 (51)	
		1/4	5400A2012	D5400A2012	0-300 (0-20)	2.0 (51)	
	Liquid Filled Stainless Steel	1/4	5400A2014	D5400A2014	0-160 (0-11)	2.5 (64)	
		1/4	5400A2015*	D5400A2015*	0-160 (0-11)	2.0 (51)	
	*Green shade between 40-70 psi (2.7-4.8 bar).						



Differential Pressure Gauges

	Small Slide Gauge	Small Slide Gauge	Large Dual Face Gauge	Large Dual Face Gauge with Reed Switch (Normally Open)	Large Dual Face Gauge with Reed Switch (Normally Closed)
DIFFERENTIAL PRESSURE GAUGE TYPE/SERIES	R-A60F-28	R-K103-151	R-106-35	R-106-35E	R-106-35EC
FILTERS					
BANTAM	—	—	—	—	—
MINIATURE	—	—	—	—	—
MID-SIZE	—	—	—	—	—
MD3™		—	—	—	—
FULL-SIZE	—	—	—	—	—
MD4™	—				
HIGH-CAPACITY	—	—	—	—	—
COALESCING FILTERS					
BANTAM	—	—	—	—	—
MINIATURE	—	—	—	—	—
MID-SIZE		—	—	—	—
FULL-SIZE	—				
MD3™		—	—	—	—
MD4™	—				
HIGH-CAPACITY	—				
OIL VAPOR REMOVAL (ADSORBING) FILTERS					
MD3™	—	—	—	—	—
MD4™	—	—	—	—	—
CLEAN AIR PACKAGES					
MD3™		—	—	—	—
MD4™	—				

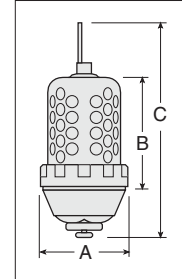
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

External Automatic Drains

Pipe Size	Model Number*	
	Polycarbonate Bowl**	Metal Bowl
1/8	5057B1001	5058B1001
1/4*	5057B2001	5058B2001

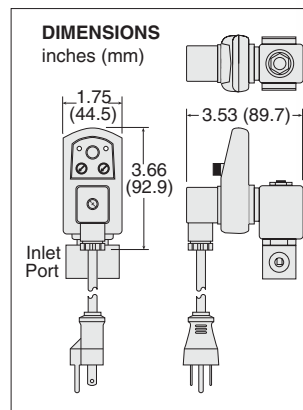
*Use 1/4 size with FULL-SIZE, HIGH-CAPACITY, MD3™ & MD4™ filters.
Use kit 1076K77 to convert standard bowl to accept auto drain unit.
**Available for FULL-SIZE filters only. Polycarbonate bowl includes metal bowl guard.

Port Size	Dimensions inches (mm)			Weight lb (kg)
	A	B	C	
1/8, 1/4	3.5 (89)	4.2 (107)	8.3 (211)	2.6 (1.2)



Electronically Controlled Drain

Pipe Size	Voltage	Model Number	
		NPTF Threads	G Threads
1/4	24 volts DC	R-DED-24V-2	R-DED-24V-2W
3/8	24 volts DC	R-DED-24V-3	R-DED-24V-3W
1/2	24 volts DC	R-DED-24V-4	R-DED-24V-4W
1/4	110-120 volts AC, 50/60 Hz	R-DED-115V-2	R-DED-115V-2W
3/8	110-120 volts AC, 50/60 Hz	R-DED-115V-3	R-DED-115V-3W
1/2	110-120 volts AC, 50/60 Hz	R-DED-115V-4	R-DED-115V-4W



STANDARD SPECIFICATIONS (for electronically controlled drain):

Drain Time	Adjustable 0.5 to 10 seconds	Electrical Connection	DIN 43650A, ISO 440/6952
Drain Interval	0.5 to 45 minutes	Valve Type	2/2 direct acting, normally closed
Current Consumption	Maximum 4 ma	Valve Body	Forged brass; 3/16-inch (4.8 mm) orifice
Temperature	Ambient: 35° to 130°F (2° to 54°C) Media: 35° to 190°F (2° to 88°C)	Maximum Pressure	230 psig (15.8 bar)

Silencers

Port Size	Thread Type	Model Number*		Avg. C _v	Dimensions inches (mm)		Weight lb (kg)
		NPT Threads	R/Rp Threads		Width	Length	
3/8	Male	5500A3003	D5500A3003	4.3	1.3 (32)	3.5 (88)	0.2 (0.1)
3/4	Male	5500A5013	D5500A5013	5.1	1.3 (32)	3.6 (92)	0.2 (0.1)
3/4	Male	5500A5003	D5500A5003	11.5	2.0 (51)	5.3 (135)	0.6 (0.3)

Flow Media: Filtered air.

Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Replacements

Filter Elements

FRL's Series

Category	Series	Bowl Type	Element Rating	Element Material	Model Number
Filters	Bantam & Miniature	Standard	5-µm	Polyethylene	933K77
			5-µm	Sintered Bronze	R-KA130-27E5
			20-µm	Sintered Bronze	R-KA130-27E4
			40-µm	Sintered Bronze	R-KA130-27E3
	MID-SIZE	Standard	5-µm	Polyethylene	936K77
	MD3™	Standard	5-µm	Polyethylene	R-A60F-03PE5
			5-µm	Sintered Bronze	R-A60F-03E5
			20-µm	Sintered Bronze	R-A60F-03E4
			40-µm	Sintered Bronze	R-A60F-03E3
	FULL-SIZE	Standard	5-µm	Polyethylene	939K77
			5-µm	Sintered Bronze	R-KA103-03E5
			20-µm	Sintered Bronze	R-KA103-03E4
			40-µm	Sintered Bronze	R-KA103-03E3
	MD4™	Standard	5-µm	Polyethylene	R-A115-106PE5
			5-µm	Sintered Bronze	R-A115-106E5
			20-µm	Sintered Bronze	R-A115-106E4
			40-µm	Polyethylene	R-A115-106PE3
	HIGH-CAPACITY Flow to 275 scfm	Standard	5-µm	Polyethylene	1010K77
			5-µm	Sintered Bronze	R-KA109-03E5
			20-µm	Sintered Bronze	R-KA109-03E4
			40-µm	Sintered Bronze	R-KA109-03E3
	HIGH-CAPACITY Flow to 660 scfm	Standard	5-µm	Sintered Bronze	1656K77
			40-µm	Sintered Bronze	R-A114-106E3
	HIGH-CAPACITY Flow to 1000 scfm	Standard	5-µm	Sintered Bronze	942K77
			40-µm	Sintered Bronze	944K77
Coalescing Filters	Bantam & Miniature	Standard	0.3-µm	Borosilicate-glass-fiber	945K77
			0.01-µm	Borosilicate-glass-fiber	R-A-10F-16E8
			0.3-µm	Borosilicate-glass-fiber	R-A60F-29
	MID-SIZE	Extended	0.3-µm	Borosilicate-glass-fiber	R-A60F-32
		Standard	0.01-µm	Borosilicate-glass-fiber	R-A60F-29E8
		Extended	0.01-µm	Borosilicate-glass-fiber	R-A60F-32E8
		Polycarbonate	0.3-µm	Borosilicate-glass-fiber	R-A60F-23
		Metal	0.3-µm	Borosilicate-glass-fiber	R-A60F-29
	MD3™	Extended Metal	0.3-µm	Borosilicate-glass-fiber	R-A60F-32
		Polycarbonate	0.01-µm	Borosilicate-glass-fiber	R-A60F-23E8
		Metal	0.01-µm	Borosilicate-glass-fiber	R-A60F-29E8
		Extended Metal	0.01-µm	Borosilicate-glass-fiber	R-A60F-32E8
		Standard	0.3-µm	Borosilicate-glass-fiber	947K77
	FULL-SIZE	Extended	0.3-µm	Borosilicate-glass-fiber	R-A103-160L
		Standard	0.01-µm	Borosilicate-glass-fiber	948K77
		Extended	0.01-µm	Borosilicate-glass-fiber	R-A103-160LE8
		Standard	0.3-µm	Borosilicate-glass-fiber	R-A115-117
	MD4™	Extended	0.3-µm	Borosilicate-glass-fiber	R-A115-118
		Standard	0.01-µm	Borosilicate-glass-fiber	R-A115-117E8
		Extended	0.01-µm	Borosilicate-glass-fiber	R-A115-118E8
		Standard	0.3-µm	Borosilicate-glass-fiber	949K77
	HIGH-CAPACITY Flow to 220 scfm	Standard	0.01-µm	Borosilicate-glass-fiber	R-A109-106E8
			0.3-µm	Borosilicate-glass-fiber	R-A114-112
			0.3-µm	Borosilicate-glass-fiber	R-A114-113
			0.01-µm	Borosilicate-glass-fiber	R-A114-112E8
	HIGH-CAPACITY Flow to 295 & 450 scfm	Extended	0.01-µm	Borosilicate-glass-fiber	R-A114-113E8
		Standard	0.3-µm	Borosilicate-glass-fiber	952K77
		Extended	0.3-µm	Borosilicate-glass-fiber	953K77
		Standard	0.01-µm	Borosilicate-glass-fiber	R-A106-24E8
		Extended	0.01-µm	Borosilicate-glass-fiber	R-A106-24LE8
		Extended	0.3-µm	Borosilicate-glass-fiber	953K77
	HIGH-CAPACITY Flow to 840 scfm	Extended	0.01-µm	Borosilicate-glass-fiber	R-A106-24E8
			0.3-µm	Borosilicate-glass-fiber	R-A106-24E8
Oil Vapor Removal Filters	MD3™	Standard	–	Borosilicate-glass-fiber	R-A60F-29E9
		Extended	–	Borosilicate-glass-fiber	R-A60F-32E9
	MD4™	Standard	–	Borosilicate-glass-fiber	R-A115-117E9
		Extended	–	Borosilicate-glass-fiber	R-A115-118E9
Silencers Reclassifiers	Port Size 1/2	Standard	20-µm	Sintered Bronze	940K77
	Port Size 3/4, 1		100-µm	Sintered Bronze	981K77

Lubricants, Polycarbonate Bowl Cautions

Compatible Lubricants

Although air line lubrication is not required for most ROSS valves, other mechanisms in the system may need such lubrication. When a lubricator is used, it should be supplied only with oils which are compatible with the materials used in the valves for seals and poppets. Generally speaking, these are petroleum base oils with oxidation inhibitors, and aniline point between 180°F (82°C) and 220°F (104°C) and an ISO 32, or lighter, viscosity. Oils with phosphate type additives, such as zinc dithiophosphate, must be avoided because they can harm polyurethane valve components. The best oils to use in pneumatic systems are those specifically compounded for air line lubricator service.

Cautions on the Use of Polycarbonate Bowls

Use Only with Compressed Air. Filters and lubricators with polycarbonate bowls are specifically designed for compressed air service, and their use with any other fluid (liquid or gas) is a misapplication. The use with or injection of certain hazardous fluids in the system (e.g., alcohol or liquefied petroleum gas) could be harmful to the polycarbonate bowl or result in a combustible condition or hazardous leakage. Before using with a fluid other than air, or for nonindustrial applications, or for life support systems, consult ROSS.

Use Metal Bowl Guard When Supplied. A metal bowl guard is supplied with all but the smallest bowls, and must always be used to minimize danger from fragmentation in the event of failure of a polycarbonate bowl.

Avoid Harmful Substances. Some compressor oils, chemical cleaners, solvents, paints, and fumes will attack polycarbonate bowls and can cause bowl failure. Do not use with or near these materials. When a bowl becomes dirty, replace the bowl or wipe it with a clean dry cloth. Immediately replace any polycarbonate bowl which is crazed, cracked, or deteriorated.

Substances HARMFUL to Polycarbonate Bowls

Acetaldehyde	Carbon disulfide	Ethylene dichloride	Phosphorous trichloride
Acetic acid	Carbon tetrachloride	Ethylene glycol	Propionic acid
Acetone	Caustic potash solution	Formic acid	Pyridine
Acrylonitrile	Caustic soda solution	Freon (refrigerant & propellant)	Sodium hydroxide
Ammonia	Chlorobenzene	Gasoline (high aromatic)	Sodium sulfide
Ammonium fluoride	Chloroform	Hydrazine	Styrene
Ammonium hydroxide	Cresol	Hydrochloric acid	Sulfuric acid
Ammonium sulfide	Cyclohexanol	Lacquer thinner	Sulfural chloride
Anaerobic adhesives & sealants	Cyclohexanone	Methyl alcohol	Tetrahydronaphthalene
Antifreeze	Cyclohexene	Methylene chloride	Thiophene
Benzene	Dimethyl formamide	Methylene salicylate	Toluene
Benzoic acid	Dioxane	Milk of lime (CaOH)	Turpentine
Benzyl alcohol	Ethane tetrachloride	Nitric acid	Xylene
Brake fluids	Ethyl acetate	Nitrobenzene	Perchlorethylene
Bromobenzene	Ethyl ether	Nitrocellulose lacquer	
Butyric acid	Ethylamine	Phenol	
Carbolic acid	Ethylene chlorohydrin	Phosphorous hydroxyl chloride	

Trade Names of Substances HARMFUL to Polycarbonate Bowls

- Atlas Perma-Guard • Buna N • Cellulube #150 & #220 • Crylex #5 cement • Eastman 910 • Garlock 98403 (polyurethane)
- Haskel 568-023 • Hilgard Company's hil phene • Houghton & Co. oil 1120, 1130, 1055 • Houtosafe 1000 • Kano Kroil
- Keystone penetrating oil #2 • Loctite 271, 290, 601 • Loctite Teflon sealant • Marvel Mystery Oil • Minn. Rubber 366Y
- National Compound N11 • Nylock VC-3 • Parco 1306 Neoprene • Permabond 910 • Petron PD287 • Prestone • Pydraul AC
- Sears Regular Motor Oil • Sinclair oil "Lily White" • Stauffer Chemical FYRQUEL 150 • Stillman SR 269-75 (polyurethane)
- Stillman SR 513-70 (neoprene) • Tannergas • Telar • Tenneco anderol 495 & 500 oils • Titon • Vibra-tite • Zerex



CAUTIONS, WARNINGS And STANDARD WARRANTY

ROSS OPERATING VALVE, ROSS CONTROLS®, ROSS DECCO®, and AUTOMATIC VALVE INDUSTRIAL, collectively the “ROSS Group”.

PRE-INSTALLATION or SERVICE

1. Before servicing a valve or other pneumatic component, be sure all sources of energy are turned off, the entire pneumatic system is shut down and exhausted, and all power sources are locked out (ref: OSHA 1910.147, EN 1037).
2. All ROSS Group Products, including service kits and parts, should be installed and/or serviced only by persons having training and experience with pneumatic equipment. Because any product can be tampered with and/or need servicing after installation, persons responsible for the safety of others or the care of equipment must check ROSS Group Products on a regular basis and perform all necessary maintenance to ensure safe operating conditions.
3. All applicable instructions should be read and complied with before using any fluid power system to prevent harm to persons or equipment. In addition, overhauled or serviced valves must be functionally tested prior to installation and use. If you have any questions, call your nearest ROSS Group location.
4. Each ROSS Group Product should be used within its specification limits. In addition, use only ROSS Group components to repair ROSS Group Products.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

FILTRATION and LUBRICATION

1. Dirt, scale, moisture, etc., are present in virtually every air system. Although some valves are more tolerant of these contaminants than others, best performance will be realized if a filter is installed to clean the air supply, thus preventing contaminants from interfering with the proper performance of the equipment. The ROSS Group recommends a filter with a 5-micron rating for normal applications.
2. All standard ROSS Group filters and lubricators with polycarbonate plastic bowls are designed for compressed air applications only. Use the metal bowl guard, where provided, to minimize danger from high pressure fragmentation in the event of bowl failure. Do not expose these products to certain fluids, such as alcohol or liquefied petroleum gas, as they can cause bowls to rupture, creating a combustible condition and hazardous leakage. Immediately replace crazed, cracked, or deteriorated bowls.
3. Only use lubricants which are compatible with materials used in the valves and other components in the system. Normally, compatible lubricants are petroleum base oils with oxidation inhibitors, an aniline

point between 180°F (82°C) and 220°F (104°C), and an ISO 32, or lighter, viscosity. Avoid oils with phosphate type additives which can harm polyurethane components, potentially leading to valve failure which risks personal injury, and/or damage to property.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

AVOID INTAKE/EXHAUST RESTRICTION

1. Do not restrict air flow in the supply line. To do so could reduce the pressure of the supply air below minimum requirements for the valve and thereby causing erratic action.
2. Do not restrict a valve's exhaust port as this can adversely affect its operation. Exhaust silencers must be resistant to clogging and must have flow capacities at least as great as the exhaust capacities of the valves. Contamination of the silencer can result in reduced flow and increased back pressure.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

SAFETY APPLICATIONS

1. Mechanical Power Presses and other potentially hazardous machinery using a pneumatically controlled clutch and brake mechanism must use a press control double valve with a monitoring device. A double valve without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All double valve installations involving hazardous applications should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.
2. Safety exhaust (dump) valves without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All safety exhaust valve installations should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.
3. Per specifications and regulations, the ROSS L-O-X® and L-O-X® with EEZ-ON®, N06 and N16 Series operation products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

STANDARD WARRANTY

All products sold by the ROSS Group are warranted for a one-year period [with the exception of Filters, Regulators and Lubricators (“FRLs”) which are warranted for a period of seven (7) years] from the date of purchase. All products are, during their respective warranty periods, warranted to be free of defects in material and workmanship. The ROSS Group's obligation under this warranty is limited to repair, replacement or refund of the purchase price paid for products which the ROSS Group has determined, in its sole discretion, are defective. All warranties become void if a product has been subject to misuse, misapplication, improper maintenance, modification or tampering. Products for which warranty protection is sought must be returned to the ROSS Group freight prepaid.

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Other literature is available for engineering, maintenance, and service requirements.

If you need products or specifications not shown in this catalog, please visit ROSS' website, contact ROSS or your ROSS distributor. The ROSS Support Team will be happy to assist you in selecting the best product for your application.

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