ROSS®

PRODUCT INFORMATION

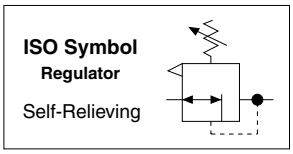
REMOTE PILOT REGULATORS

AIR PREPARATION

ROSS CONTROLS

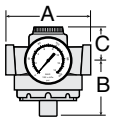
Port Sizes: 1/4, 3/8, 1/2, 3/4 – Flow to 155 scfm

Port Size	Pressure Range psig (bar)	
	0-200 (0-13.8)	
	Model Number	
	NPTF Threads	G Threads
1/4	5211C2007	C5211C2007
3/8	5211C3007	C5211C3007
1/2	5211C4007	C5211C4007
3/4	5211C5007	C5211C5007



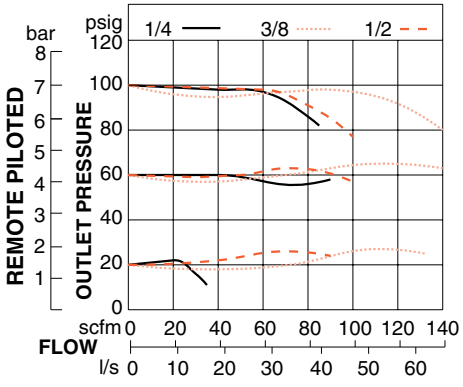
Port Size	Dimensions inches (mm)				Weight† lb (kg)
	A	B**	C***	Depth†	
1/4, 3/8, 1/2, 3/4	3.5 (89)	2.4 (62)	1.3 (33)	2.8 (71)	2.06 (0.92)

** Dome removal clearance: add 0.63 (16).
*** Cap removal clearance: add 0.5 (13).
† Less gauge.



Remote Pilot Regulators use any small regulator to provide remote adjustment and to ensure accurate pressure control.

FLOW CHART



Pressure Gauge included.
Accessories ordered separately, refer to page G6.3-4.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Diaphragm Self-relieving
Temperature	**Ambient/Media:** 40° to 125°F (4° to 52°C)
Fluid Media	Compressed air
Operating Pressure	**Inlet:** Maximum 300 psig (21 bar) **Outlet:** Adjustable 15 to 250 psig (1 to 17 bar)
Pressure Gauge	0 to 200 psig (0 to 14 bar); 1/4 NPT gauge ports front and rear
Panel Mounting	2-1/16 inch (52 mm) hole required

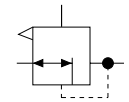
Construction Material	**Body:** Zinc
	Dome: Zinc
	Knob: Acetal
	Seals: Nitrile
	Valve: Brass **Valve Cap:** Nylon

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

Port Sizes: 1/4, 3/8, 1/2 & 3/4 – Flow to 150 scfm

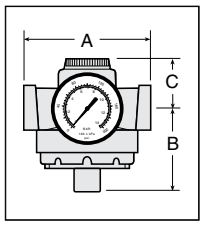
Port Size	Model Number	
	NPTF Threads	G Threads
1/4	5X00B2037	C5X00B2037
3/8	5X00B3025	C5X00B3025
1/2	5X00B4040	C5X00B4040
3/4	5X00B5035	C5X00B5035

ISO Symbol
Regulator

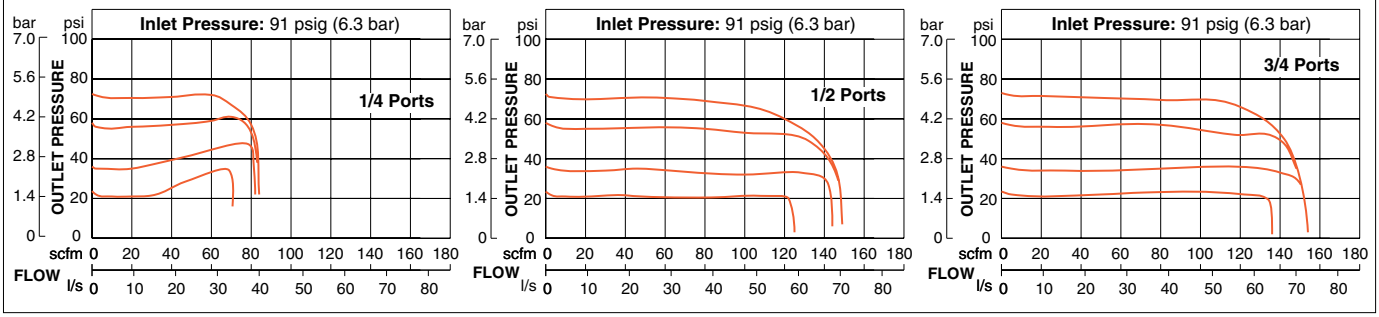


G2

Port Size	Dimensions inches (mm)				Weight † lb (kg)
	A	B	C	Depth †	
1/4, 3/8, 1/2, 3/4	3.5 (87)	2.4 (62)	1.3 (33)	2.8 (71)	2.06 (0.92)
† Dimensions reflect less gauge.					



FLOW CHARTS



G

Pressure Gauge included.
Accessories ordered separately, refer to page G6.3-4.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Diaphragm Self-relieving
Temperature	**Ambient/Media:** 40° to 175°F (4° to 80°C)
Fluid Media	Compressed air
Operating Pressure	**Inlet:** Maximum 300 psig (21 bar) **Outlet:** Adjustable 15 to 200 psig (1 to 14 bar)
Pressure Gauge	0 to 200 psig (0 to 14 bar); 1/4 NPT gauge ports front and rear
Pilot Ports	1/4 NPTF

Panel Mounting	2-1/16 inch (52 mm) hole required
Construction Material	**Body:** Zinc
	Dome: Zinc
	Seals: Nitrile; Fluoroelastomer seals optional, consult ROSS
	Valve: Brass **Valve Cap:** Nylon

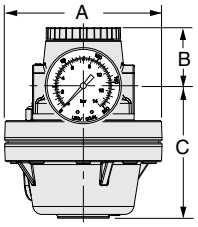
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Port Sizes: 1/4, 3/8 & 1/2 – Flow to 150 scfm

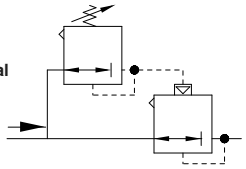
Port Size	Model Number	
	NPTF Threads	G Threads
1/4	5216A2007	C5216A2007
3/8	5216A3007	C5216A3007
1/2	5216A4007	C5216A4007

Port Size	Dimensions inches (mm)				Weight† lb (kg)
	A	B**	C***	Depth†	
1/4, 3/8, 1/2	4.18 (106)	1.54 (39.1)	3.52 (89.3)	4.18 (106)	4.84 (2.2)

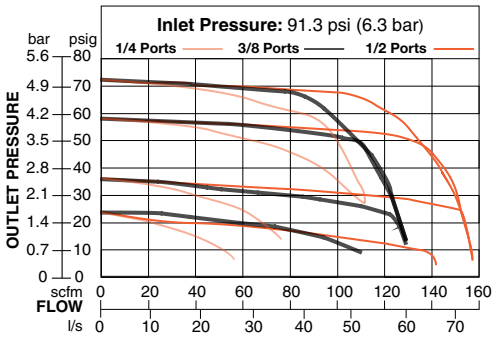
** Dome removal clearance: add 0.63 (16).
*** Cap removal clearance: add 0.5 (13).
† Less gauge.

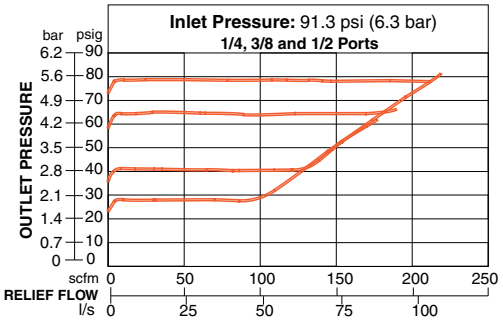


ISO Symbol
With Conventional Pilot Regulator
Self-Relieving



FLOW CHARTS





Pressure Gauge included.
Accessories ordered separately, refer to page G6.3-4.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Diaphragm Self-relieving
Temperature	**Ambient/Media:** 0° to 158°F (-18° to 70°C)
Fluid Media	Compressed air
Operating Pressure	**Inlet:** Maximum 400 psig (28 bar) **Outlet:** Adjustable up to 250 psig (7 bar)

Pressure Gauge	0 to 200 psig (0 to 14 bar) standard, 1/4-NPTF (1/4 BSPP) gauge ports front and rear; 0 to 600 psig (0 to 40 bar) optional
Construction Material	**Body:** Zinc
	Dome: Zinc
	Seals: Nitrile
	Valve: Brass **Valve Cap:** Glass filled Nylon

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

Port Sizes: 3/8, 1/2 & 3/4 – Flow to 190 scfm

Choose your options (in red) to configure your model number.

MD4	52K	1	B	5	2	B

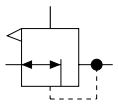
RELIEF OPTION	
Relieving	1
Non-relieving	2

PIPE SIZE	
3/8 NPTF	3
1/2 NPTF	4
3/4 NPTF	5
3/8 G	C
1/2 G	D
3/4 G	E

CAP COLOR	
Black	2
Yellow	Y

GAUGE	
Without Gauge	A
Gauge 0-200 psig (0-13.8 bar)	B

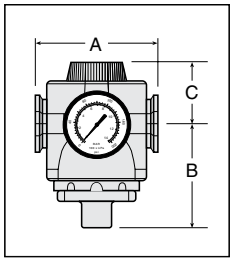
ISO Symbol
Regulator



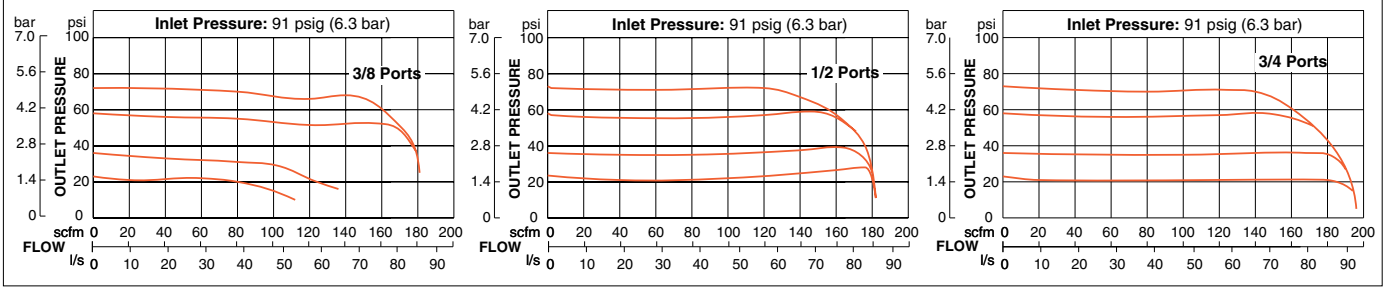
G2

Port Size	Dimensions inches (mm)				Weight † lb (kg)
	A	B	C	Depth †	
1/4, 3/8, 1/2, 3/4	3.5 (87)	2.4 (62)	1.6 (41)	2.9 (73)	2.2 (1.0)

† Dimensions reflect less gauge.



FLOW CHARTS



G

Accessories ordered separately, refer to page G6.3-5.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Diaphragm Self-relieving
Temperature	**Ambient/Media:** 40° to 175°F (4° to 80°C)
Fluid Media	Compressed air
Operating Pressure	**Inlet:** Maximum 300 psig (21 bar) **Outlet:** Adjustable 0 to 250 psig (0 to 17 bar)

Pressure Gauge	0 to 200 psig (0 to 14 bar) standard, 1/4-NPTF (1/4 BSPP) gauge ports front and rear;
Construction Material	**Body:** Zinc
	Dome: Zinc
	Seals: Nitrile
	Valve: Brass **Valve Cap:** Nylon

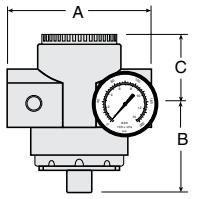
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

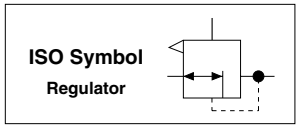
Port Sizes: 3/4, 1, 1¼ & 1½– Flow to 740 scfm

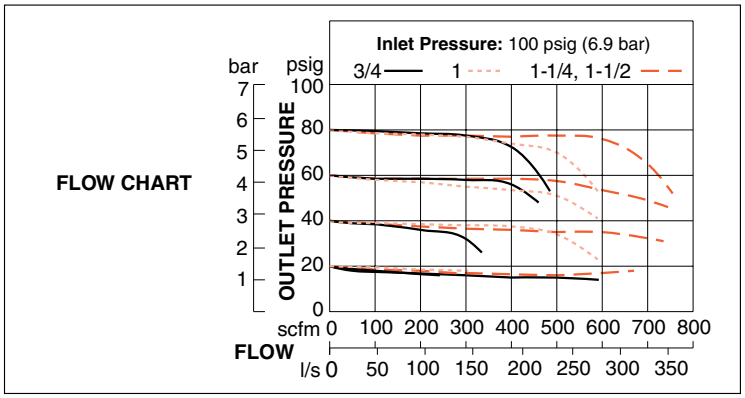
Port Size	Model Number	
	NPTF Threads	G Threads
3/4	5211D5006	C5211D5006
1	5211D6007	C5211D6007
1¼	5211D7007	C5211D7007
1½	5211D8007	C5211D8007

Port Size	Dimensions inches (mm)				Weight† lb (kg)
	A	B*	C**	Depth†	
3/4, 1	4.4 (111)	2.9 (74)	2.4 (62)	2.8 (71)	1.88 (0.85)
1¼, 1½	4.9 (124)	3.2 (81)	2.1 (54)	2.8 (71)	2.25 (1.02)

† Less gauge.







Pressure Gauge included.
Accessories ordered separately, refer to page G6.3-4.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Diaphragm Self-relieving
Temperature	**Ambient/Media:** 40° to 175°F (4° to 80°C)
Fluid Media	Compressed air
Operating Pressure	**Inlet:** Maximum 300 psig (21 bar) **Outlet:** Adjustable 0 to 200 psig (0 to 14 bar) *NOTE: Outlet pressure depends on the adjustment of the pilot regulator*
Pilot Ports	1/4-NPTF

Pressure Gauge	0 to 200 psig (0 to 14 bar) standard, 1/4-NPTF) gauge ports front and rear
Construction Material	**Body:** Aluminum
	Dome: Zinc
	Seals: Nitrile
	Valve: Brass **Valve Cap:** Nylon

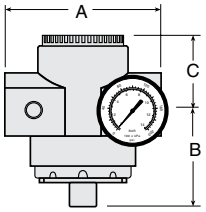
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

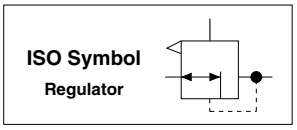
Port Sizes: 3/4, 1, 1¼ & 1½ – Flow to 700 scfm

Port Size	Model Number	
	NPTF Threads	G Threads
3/4	5X00B5046	C5X00B5046
1	5X00B6039	C5X00B6039
1¼	5X00B7021	C5X00B7021
1½	5X00B8049	C5X00B8049

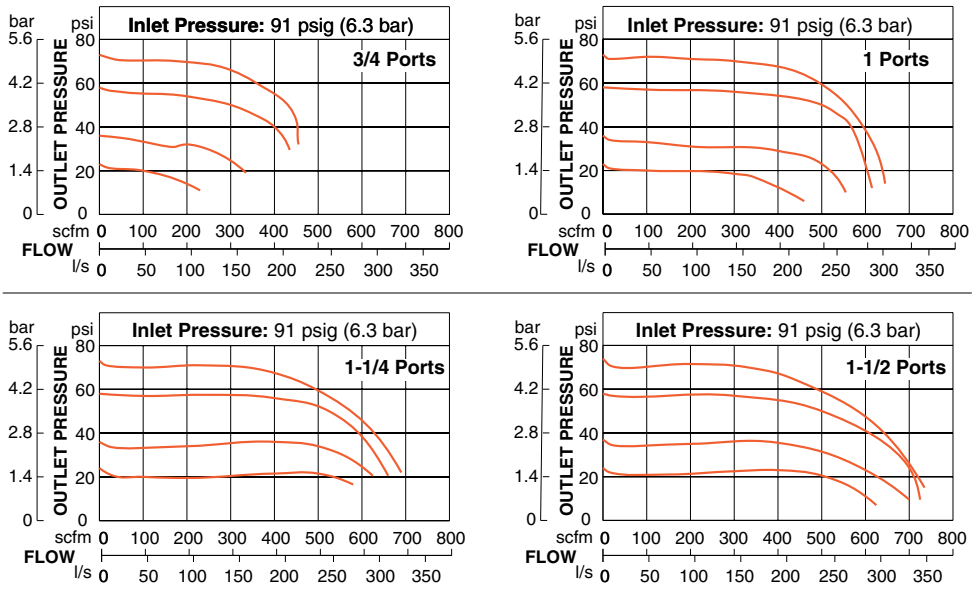
Port Size	Dimensions inches (mm)				Weight† lb (kg)
	A	B**	C***	Depth†	
3/4, 1	4.4 (111)	2.9 (74)	2.4 (62)	2.8 (71)	1.88 (0.85)
1¼, 1½	4.9 (124)	3.2 (81)	2.1 (54)	2.8 (71)	2.25 (1.02)

** Dome removal clearance: add 0.63 (16).
*** Cap removal clearance: add 0.5 (13).
† Less gauge.





FLOW CHARTS



Pressure Gauge included.
Accessories ordered separately, refer to page G6.3-4.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Diaphragm Self-relieving
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)
Fluid Media	Compressed air
Operating Pressure	Inlet: Maximum 300 psig (21 bar) Outlet: Adjustable 0 to 200 psig (0 to 14 bar)
Pilot Ports	1/4-NPTF

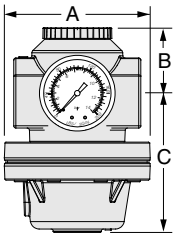
Pressure Gauge	0 to 200 psig (0 to 14 bar) standard, 1/4-NPTF) gauge ports front and rear
Construction Material	Body: Aluminum
	Dome: Zinc
	Seals: Nitrile
	Valve: Brass Valve Cap: Nylon

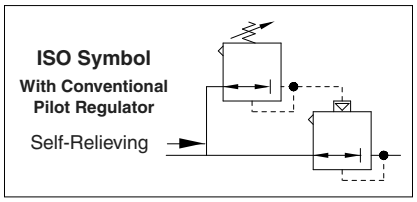
Port Sizes: 3/4, 1 & 1¼ – Flow to 400 scfm

Port Size	Model Number	
	NPTF Threads	G Threads
3/4	5216A5007	C5216A5007
1	5216A6007	C5216A6007
1¼	5216A7007	C5216A7007

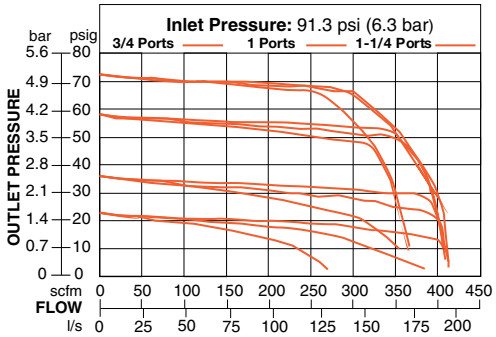
Port Size	Dimensions inches (mm)				Weight† lb (kg)
	A	B**	C***	Depth†	
3/4, 1, 1¼	4.18 (117)	1.87 (47.5)	3.99 (101.3)	4.18 (106)	6.44 (3.0)

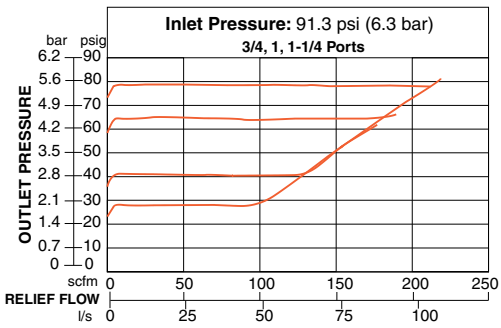
** Dome removal clearance: add 0.63 (16).
*** Cap removal clearance: add 0.5 (13).
† Less gauge.





FLOW CHARTS





Pressure Gauge included.
Accessories ordered separately, refer to page G6.3-4.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Diaphragm Self-relieving
Temperature	Ambient/Media: 0° to 158°F (-18° to 70°C)
Fluid Media	Compressed air
Operating Pressure	Inlet: Maximum 400 psig (28 bar) Outlet: Adjustable up to 250 psig (up to 17 bar)
Pressure Gauge	0 to 200 psig (0 to 14 bar) standard, 1/4-NPTF (1/4 BSPP) gauge ports front and rear; 0 to 600 psig (0 to 40 bar) optional

Construction Material	Body: Zinc
	Dome: Zinc
	Seals: Nitrile
	Valve: Brass Valve Cap: Glass filled Nylon

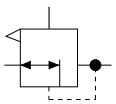
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Port Sizes: 1½, 2 & 3 – Flow to 4000 scfm

Flow to 850 scfm		
Port Size	Model Number	
	NPTF Threads	G Threads
1½	5211B8027	C5211B8027
2	5211B9007	C5211B9007

Flow to 4000 scfm			
Port Size	Seals	Model Number	
		NPTF Threads	G Threads
3	Nitrile	5211B9008	C5211B9008
3	Fluoroelastomer	5X00B9021	C5X00B9021

ISO Symbol
Regulator

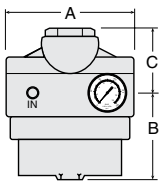


G2

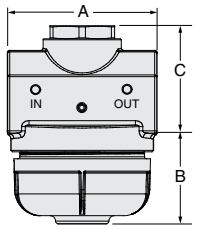
Port Size	Dimensions inches (mm)				Weight† lb (kg)
	A	B	C	Depth†	
1½, 2	6.4 (162)	5.0 (127)	3.0 (76)	2.8 (71)	8.94 (4.06)
3	8.4 (214)	7.36 (187)	3.74 (95)	8.0 (203)	21.77 (9.88)

† Less gauge.

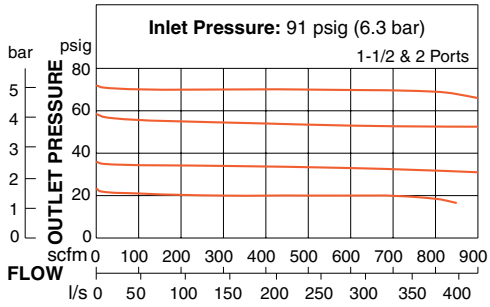
Port Size 1½, 2

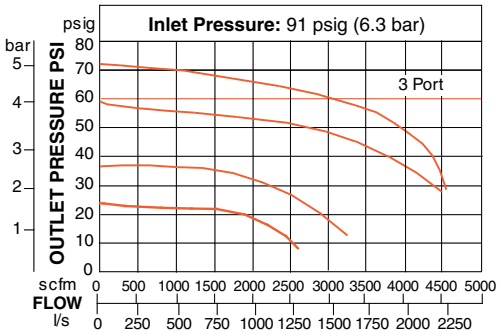


Port Size 3



FLOW CHARTS





G

Pressure Gauge included.
Accessories ordered separately, refer to page G6.3-4.

STANDARD SPECIFICATIONS (for regulators on this page):

Construction Design	Piston Self-relieving
Temperature	**Ambient/Media:** 40° to 175°F (4° to 80°C)
Fluid Media	Compressed air
Operating Pressure	**Inlet:** Maximum 300 psig (21 bar) **Outlet:** Adjustable 0 to 200 psig (0 to 14 bar) *NOTE: Outlet pressure depends on the adjustment of the pilot regulator*
Pilot Ports	1/4-NPTF

Pilot Ports	1/4-NPTF
Pressure Gauge	0 to 200 psig (0 to 14 bar) standard, 1/4-NPTF) gauge ports front and rear
Construction Material	**Body:** Aluminum
	Dome: Aluminum
	Seals: Nitrile
	Valve: Brass on 1/2" & 2" ports; Aluminum on 3" ports **Valve Cap:** Aluminum

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

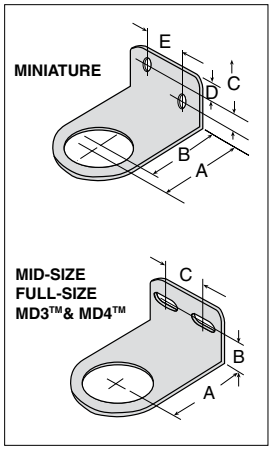
Mounting Screws for BANTAM Models

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

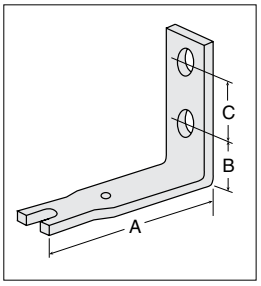
Regulators and integrated filter/regulators can be mounted to a surface with a bracket that attaches to the regulator. Brackets and mounting panel nuts can be ordered separately or in a kit which includes both bracket and mounting panel nut.



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

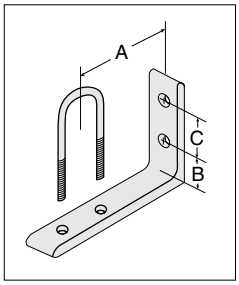
Two L-shaped metal brackets as shown at the right can be used for wall mounting of modular FRLs or Clean Air Packages. A single bracket can be used to mount individual filters or lubricators. Kits include two brackets and four screws for attaching the brackets to the modules.



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

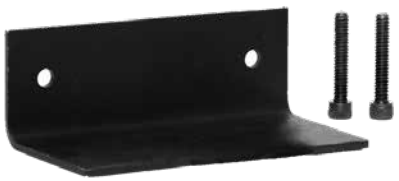
Two pipe brackets can be used for wall mounting of FRLs assemblies that use pipe nipples to join the components. The bracket kits listed below include two sets of brackets.



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 1¼ inch ports can be mounted to a vertical surface using a bracket assembly kit.



Kit Number	R-A37-381

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

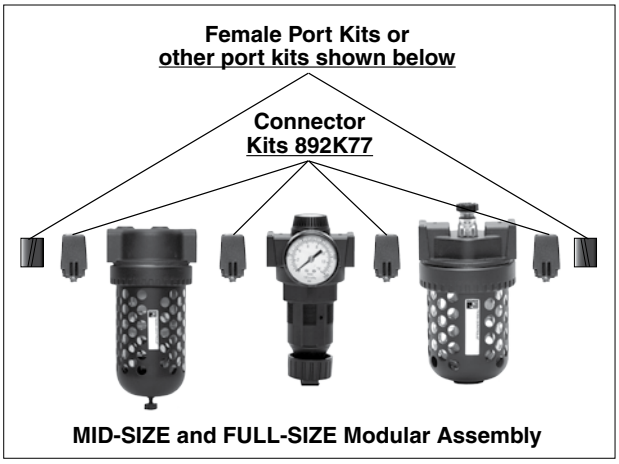
Used to connect modular to non-modular units.

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



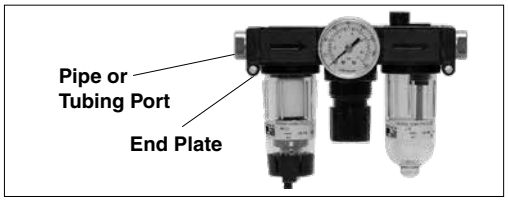
MID-SIZE and FULL-SIZE Modular Assembly

BANTAM Units

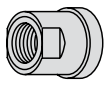
BANTAM modular units use end plates secured with screws to hold the pipe or tubing ports (see below), and also to serve as mounting brackets. Short screws are used to secure the end plates when a single BANTAM unit is used. If two or more units are combined, long screws extend through an end plate and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

Screw kits required are as follows:

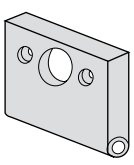
Single Unit: Two short screw kits.
Two-Unit Combination: One each short screw kit and long screw kit.
Three-Unit Combination: Two long screw kits.



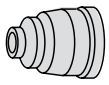
Pipe Ports	
Port Size	Model Number
1/8 NPTF	862K77
1/4 NPTF	863K77
1/8 BSPP	D864K77
1/4 BSPP	D865K77



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



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

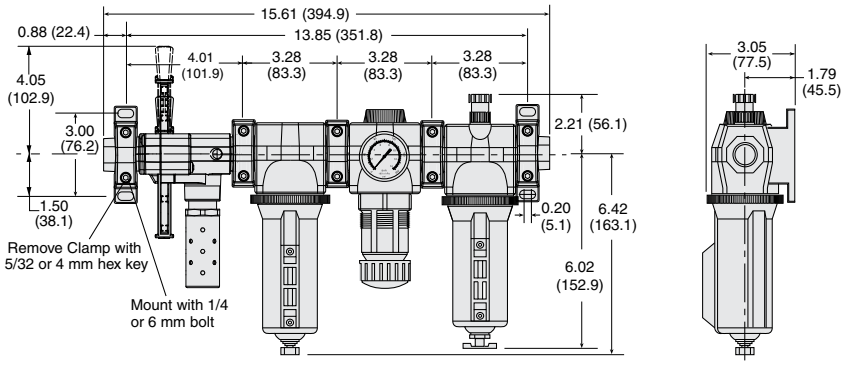


G
G6

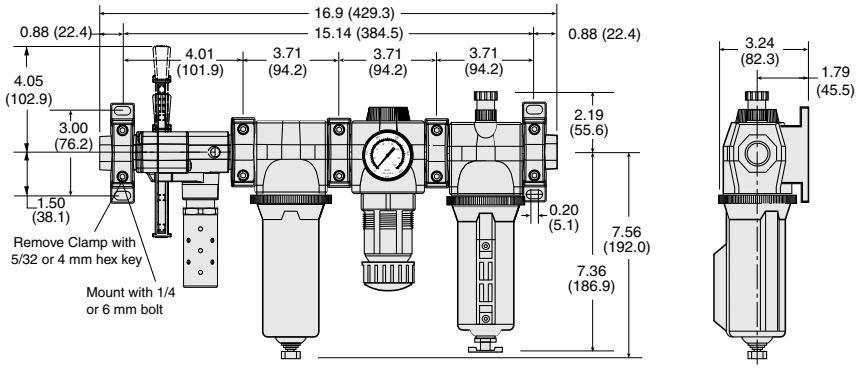
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

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

Analog Pressure Gauges

	Type/Material	Port Size	Model Number Thread NPT	Model Number Thread G	Pressure Range psig (bar)	Case Diameter inches (mm)
Pressure Gauges (Center Back Mounting)	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

DIFFERENTIAL PRESSURE GAUGE TYPE/SERIES	Small Slide Gauge R-A60F-28	Small Slide Gauge R-K103-151	Large Dual Face Gauge R-106-35	Large Dual Face Gauge with Reed Switch (Normally Open) R-106-35E	Large Dual Face Gauge with Reed Switch (Normally Closed) 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™	–				

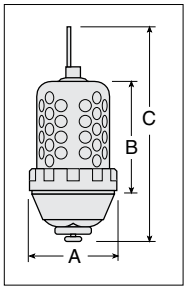
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

External Automatic Drains

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

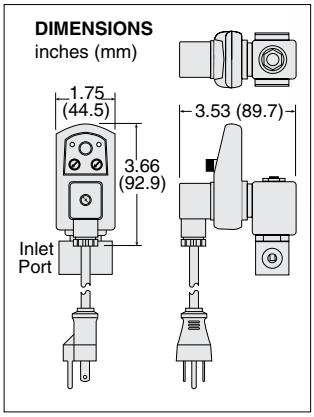
*Use 1/4 size with FULL-SIZE, HIGH-CAPACITY, MD3™ & MD4™ filters.
Use kit 1076K77 to convert standard bowl to accept auto drain unit.
**Available for FULL-SIZE filters only. Polycarbonate bowl includes metal bowl guard.

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
Drain Interval	0.5 to 45 minutes
Current Consumption	Maximum 4 ma
Temperature	**Ambient:** 35° to 130°F (2° to 54°C)
	Media: 35° to 190°F (2° to 88°C)

Electrical Connection	DIN 43650A, ISO 440/6952
Valve Type	2/2 direct acting, normally closed
Valve Body	Forged brass; 3/16-inch (4.8 mm) orifice
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.

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

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.

THE WARRANTY EXPRESSED ABOVE IS IN LIEU OF AND EXCLUSIVE OF ALL OTHER WARRANTIES AND THE ROSS GROUP EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED WITH RESPECT TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE ROSS GROUP MAKES NO WARRANTY WITH RESPECT TO ITS PRODUCTS MEETING THE PROVISIONS OF ANY GOVERNMENTAL OCCUPATIONAL SAFETY AND/OR HEALTH LAWS OR REGULATIONS. IN NO EVENT IS THE ROSS GROUP LIABLE TO PURCHASER, USER, THEIR EMPLOYEES OR OTHERS FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM A BREACH OF THE WARRANTY DESCRIBED ABOVE OR THE USE OR MISUSE OF THE PRODUCTS. NO STATEMENT OF ANY REPRESENTATIVE OR EMPLOYEE OF THE ROSS GROUP MAY EXTEND THE LIABILITY OF THE ROSS GROUP AS SET FORTH HEREIN.

Americas

U.S.A.

ROSS CONTROLS
rosscontrols.com

Customer Service
1-800-GET-ROSS (438-1800)
Technical Service
1-888-TEK-ROSS (835-7677)

Canada

ROSS CANADA
rosscanada.com
6077170 CANADA INC.
An Independent Representative

Brazil

ROSS SOUTH AMERICA Ltda.
rosscontrols.com.br

Europe

Germany

ROSS EUROPA GmbH
rosseuropa.com

United Kingdom

ROSS UK Ltd.
+44-1543-671495
sales.uk@rosscontrols.com
rossuk.co.uk

France

ROSS FRANCE SAS
rossfrance.com

Asia & Pacific

Japan

ROSS ASIA K.K.
rossasia.co.jp

India

ROSS CONTROLS INDIA Pvt. Ltd.
rosscontrols.com

China

ROSS CONTROLS (CHINA) Ltd.
rosscontrolschina.com

Full-Service Global Locations

There are ROSS Distributors Throughout the World

To meet your requirements across the globe, ROSS distributors are located throughout the world. Through ROSS or its distributors, guidance is available for the selection of ROSS products, both for those using pneumatic components for the first time and those designing complex systems.

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.

For a current list of countries and local distributors, visit ROSS' at rosscontrols.com.

