



# SAFE AIR ENTRY SOLUTIONS WITH SENSING VALVES SV27 SERIES

## PRODUCT CATALOG



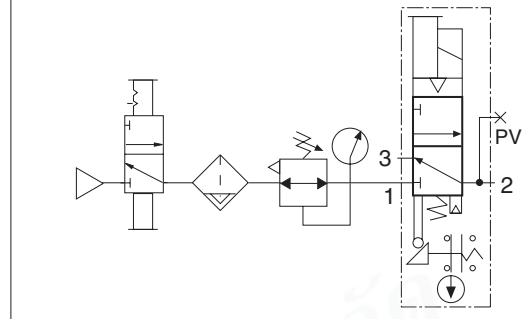
# Safe Air Entry Assemblies with Sensing Valves SV27 Series

## Product Overview



Safe air entry assembly for Pneumatic Control and Air Dump/Release applications.

Assembly Schematic



Air entry system via a manual Lockout L-O-X<sup>®</sup> valve, air preparation FRL combinations, and an SV27 Series Safe Exhaust sensing valve.

ROSS systems have the same quality that you have come to expect from ROSS components. Units are fully configurable, tested and ready for quick and easy installation at the job site.

- Custom designs available, consult ROSS.
- Explosion proof solenoid pilot available, for more information consult ROSS.

*Mounting accessories are used for modular connection to ROSS MD Series Filter-Regulator units. Bracket, Screw, Clamp and Mounting Adapter required for mounting.*

### ASSEMBLY COMPONENTS & FEATURES

#### Energy Isolation Lockout L-O-X<sup>®</sup> Valve 15 Series

- 3/2 valve
- Classic L-O-X<sup>®</sup> or Modular L-O-X<sup>®</sup>
- Lockable only in the OFF position
- Has a full size exhaust port (equal to or larger than supply)
- Simple push/pull of the large handle provides positive direct manual operation
- Fluorocarbon slipper seals for easy shifting, even after long periods of inactivity
- Integrated sensing port for pressure verification or visual indicator
- High flow, clog resistant; silencers included

#### Filter and Regulator (FR), Integrated Filter/Regulator (F/R), or Filter, Regulator, and Lubricator (FRL) MD Series

- Filter, Pressure Regulator, and Lubricator with metal bowls, or Filter/Regulator (Filter and Pressure Regulator combined into a single unit) with high-strength polycarbonate plastic bowl
- 5-micron filter element
- Automatic filter drain
- Self relieving regulator
- Analog gauge

#### Safe Exhaust Sensing Valve SV27 Series

- 3/2 valve
- Senses internal position & state
- Electrical feedback via DPST switch (Double-Pole Single-Throw)
- Directly operated safety-rated force-guided positive-break status switch (DPST)
- Poppet construction for near zero leakage & dirt tolerance

#### Mounting

Mounting plate, direct piping assembly.

SISTEMA Library

Available for download at [rosscontrols.com](http://rosscontrols.com).



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# Ordering Information



## MODELS with CLASSIC MANUAL LOCKOUT L-O-X® VALVES

Port Size		Port Thread	Air Preparation		Air Entry Assembly Model Number #			Flow C <sub>v</sub>	
In-Out 1, 2	Exhaust 3		Series	Type	Voltage*			1-2	2-3
					24 volts DC	110-120 volts AC 50/60 Hz	230 volts AC 50/60 Hz **		
1/2	1/2	NPT	MD4™	FR	RC208-06W	RC208-06Z	RC208-06Y	6.3	9.2
				FRL	RC208L-06W	RC208L-06Z	RC208L-06Y		
3/4	3/4	NPT	MD4™	FR	RC212-06W	RC212-06Z	RC212-06Y	7.7	11
				FRL	RC212L-06W	RC212L-06Z	RC212L-06Y		
1	1	NPT	High-Capacity	FR	RC216-06W	RC216-06Z	RC216-06Y	8.0	12
				FRL	RC216L-06W	RC216L-06Z	RC216L-06Y		

# Silencer included.

\* For other voltages consult ROSS.

\*\* 230 VAC not available in the U.S. (OSHA regulations limit control voltage to no more than 120 volts AC).

## MODELS with MODULAR MANUAL LOCKOUT L-O-X® VALVES

Port Size		Port Thread	Air Preparation		Air Entry Assembly Model Number #			Flow C <sub>v</sub>	
In-Out 1, 2	Exhaust 3		Series	Type	Voltage*			1-2	2-3
					24 volts DC	110-120 volts AC 50/60 Hz	230 volts AC 50/60 Hz **		
1/2	1/2	NPT	MD3™	F/R	RC208-09W	RC208-09Z	RC208-09Y	6.3	9.2
				FRL	RC208L-09W	RC208L-09Z	RC208L-09Y		

# Silencer included.

\* For other voltages consult ROSS.

\*\* 230 VAC not available in the U.S. (OSHA regulations limit control voltage to no more than 120 volts AC).

## SV27 SERIES VALVE PRODUCT CREDENTIALS

Safety Category	TÜV Rheinland of North America Certificate	CE Conformity Declaration	EAC Conformity Declaration	ISO Standard	CSA Certificate of Compliance	CRN Certification
	 Precisely Right.			ISO 13849-1:2015		Available for appropriately tested valves



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# Assembly Technical Data

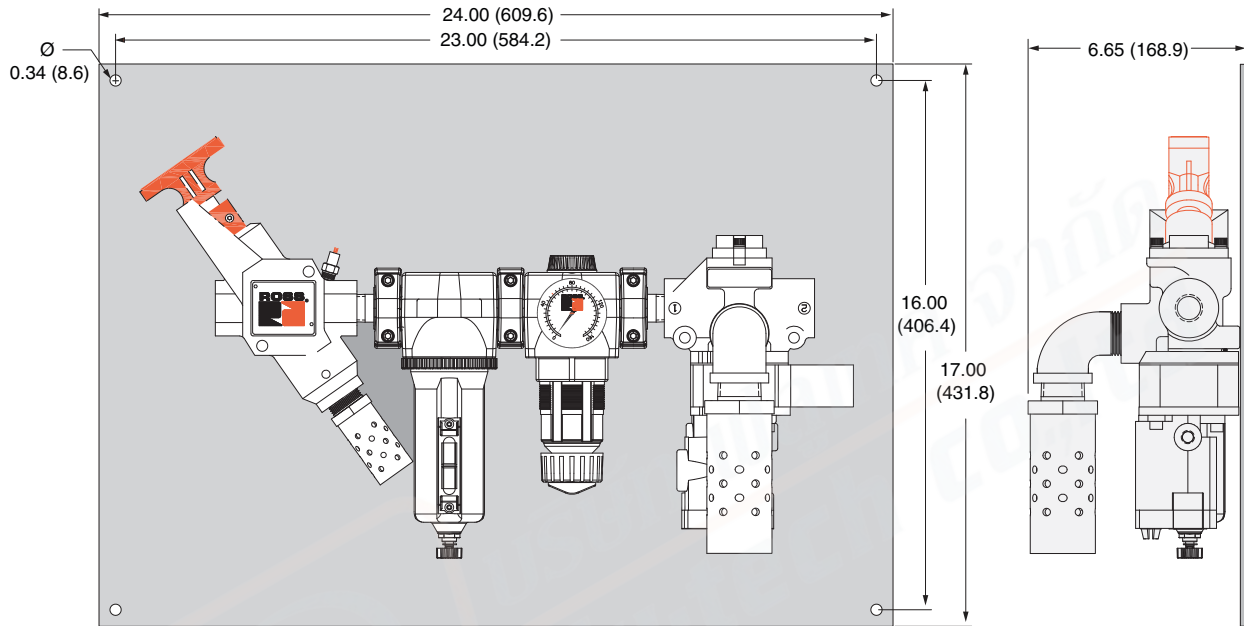
## Models with Classic Lockout L-O-X® Valve

### DIMENSIONS

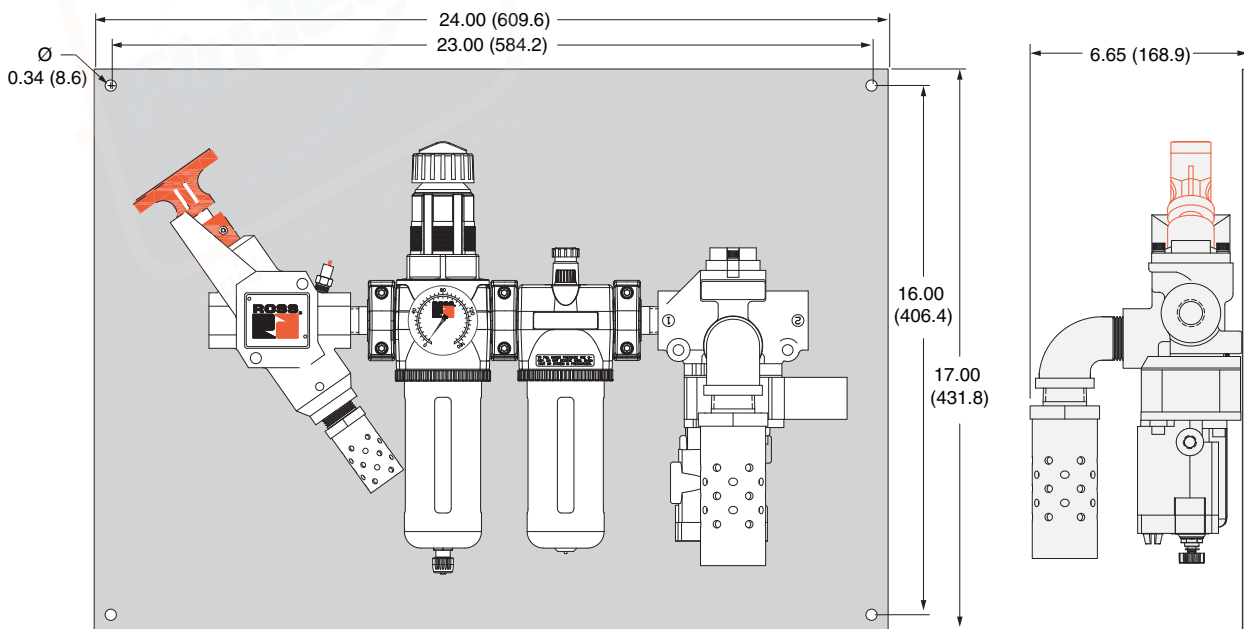
Inches (mm)

#### Port Size 1/2"

#### with MD4™ Filter and Regulator option



#### with MD4™ Integrated Filter/Regulator and Lubricator option



For additional information, and to assist you with piping and connectivity designs, our products are available in downloadable 2D drawings and 3D CAD models in a wide range of options including native formats, visit [www.rosscontrols.com](http://www.rosscontrols.com).



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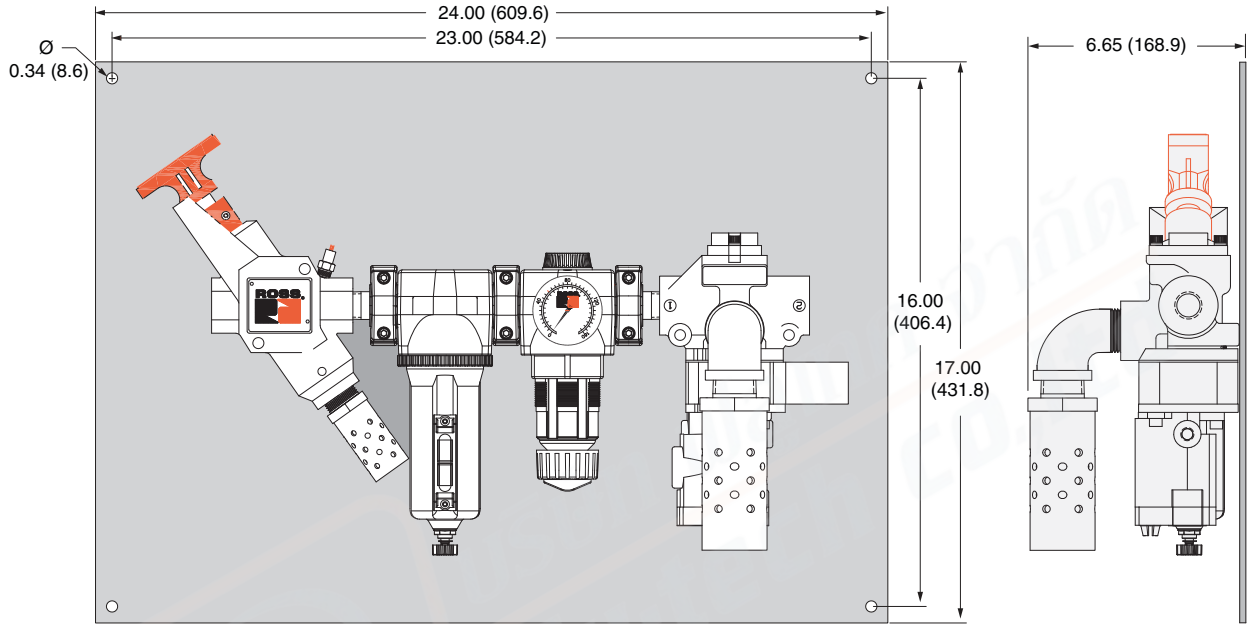
## Models with Classic Lockout L-O-X® Valve

### DIMENSIONS

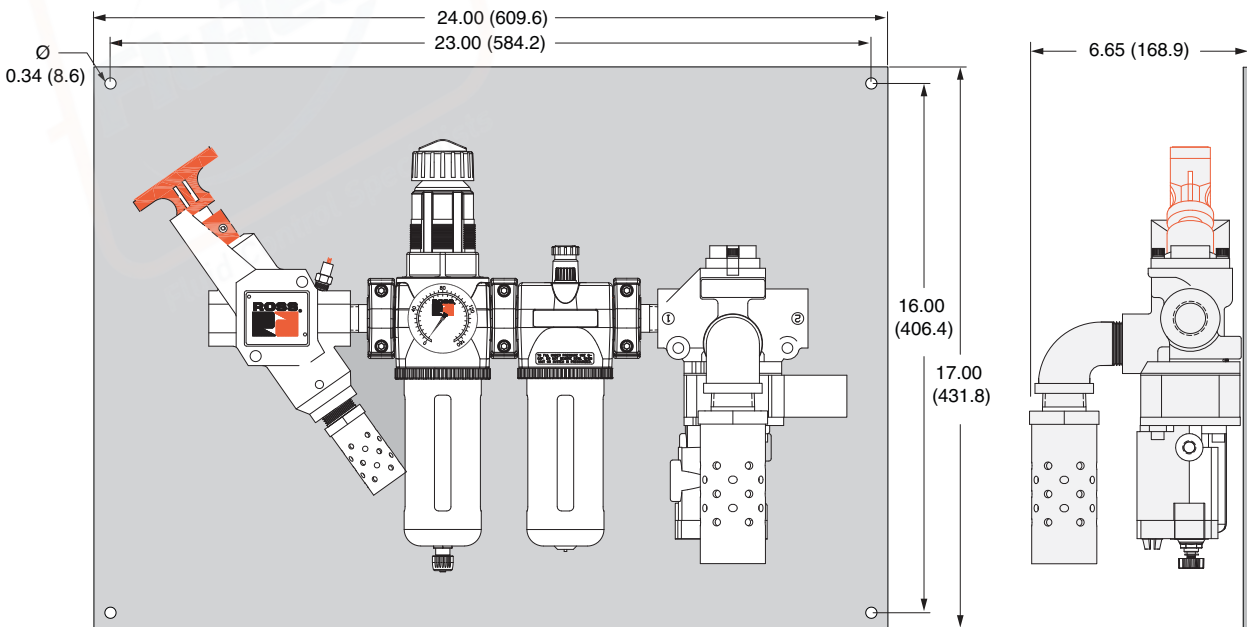
Inches (mm)

#### Port Size 3/4"

#### with MD4™ Filter and Regulator option



#### with MD4™ Integrated Filter/Regulator and Lubricator option



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# Assembly Technical Data

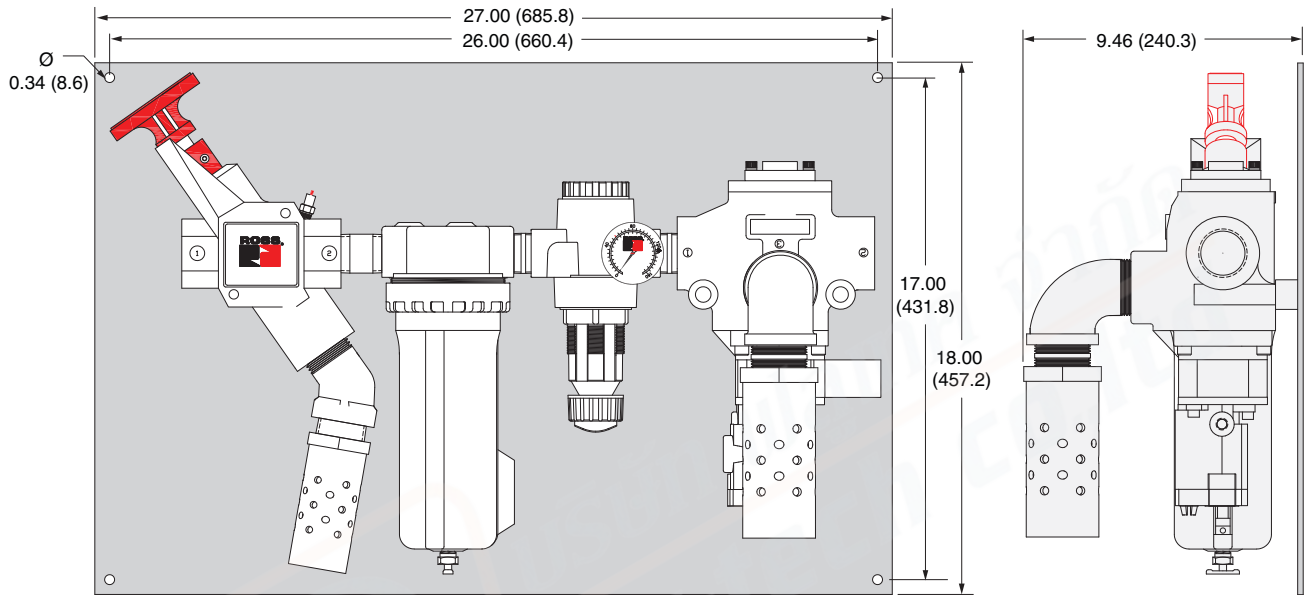
## Models with Classic Lockout L-O-X® Valve

### DIMENSIONS

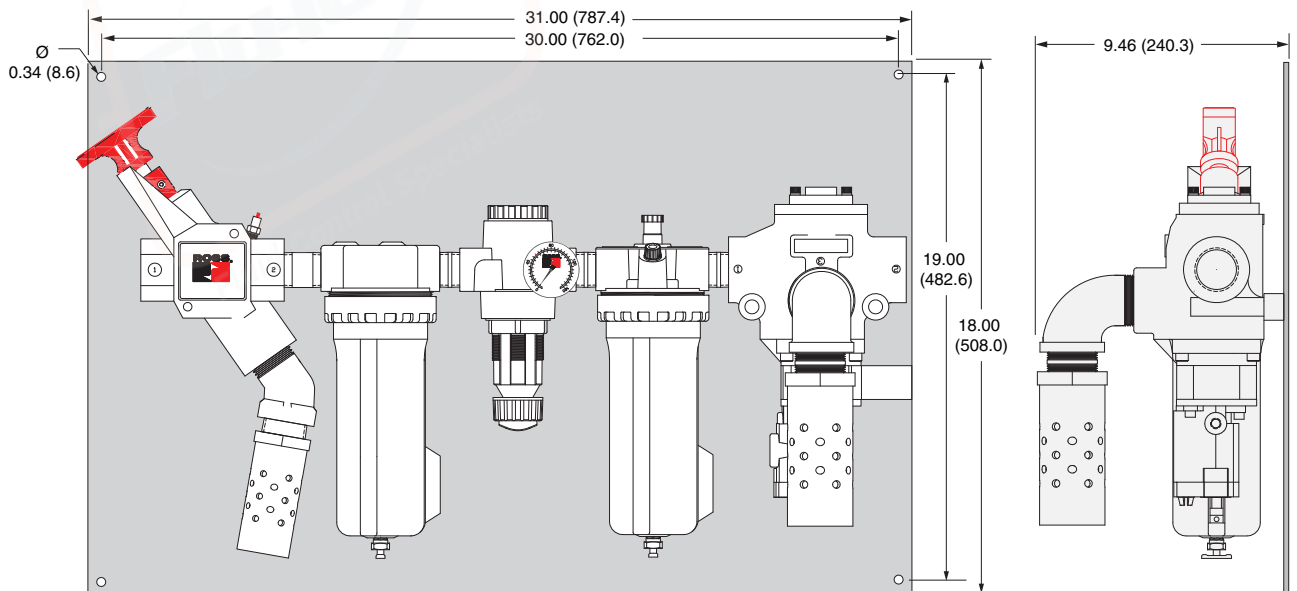
Inches (mm)

#### Port Size 1"

#### with MD4™ Filter and Regulator option



#### with MD4™ Filter, Regulator and Lubricator option



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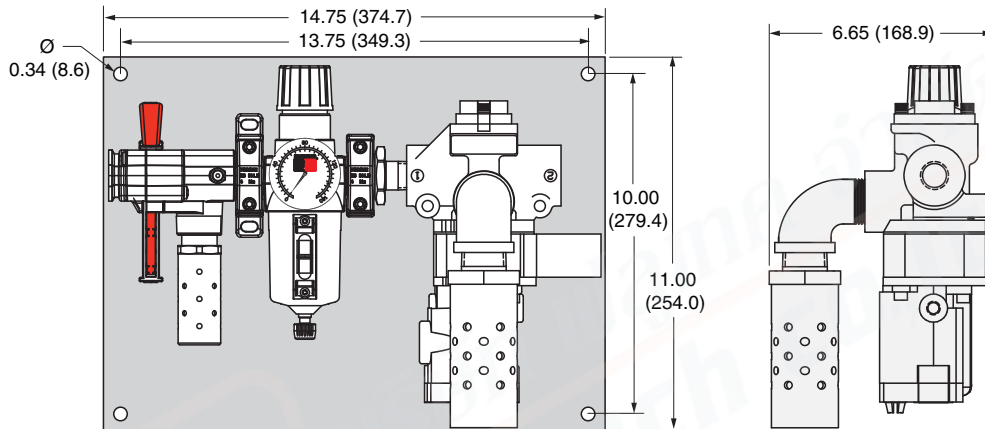
## Models with Modular Lockout L-O-X® Valve

### DIMENSIONS

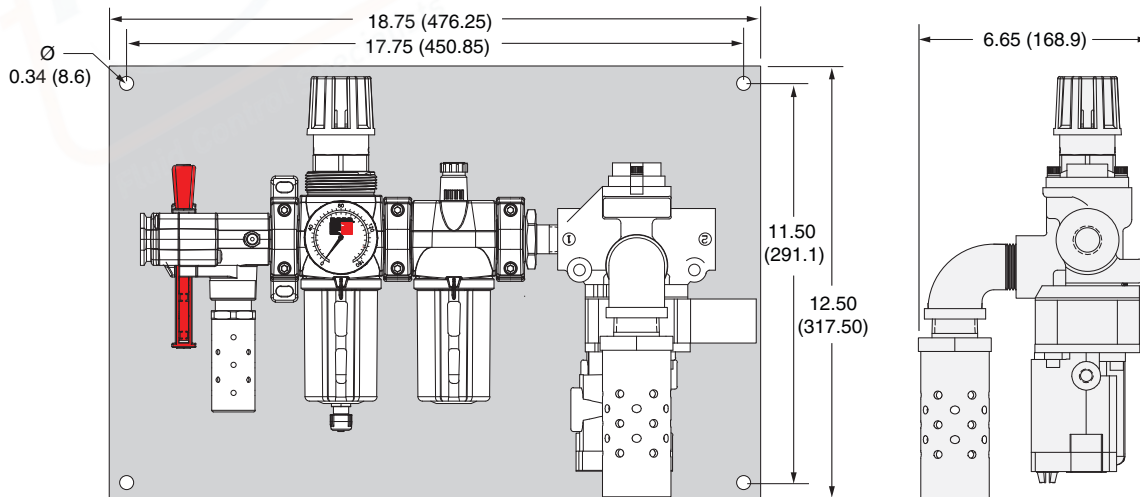
Inches (mm)

#### Port Size 1/2"

with MD3™ Integrated Filter/Regulator option



with MD3™ Integrated Filter/Regulator and Lubricator option



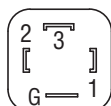
# Accessories & Options

## ENERGY RELEASE VERIFICATION

<b>Visual Pressure Indicator</b>	<b>Verification Type</b>	<b>Indicator Type</b>	<b>Model Number</b>	<b>Port Thread</b>	
	Pneumatic	Visual Pop-up Pin	988A30	1/8 NPT	
<b>Pressure Switch</b>	<b>Verification Type</b>	<b>Connector Type</b>	<b>Model Number</b>	<b>Factory Preset</b> psi (bar)	<b>Port Thread</b>
	Electrical	DIN EN 175301-803 Form A	586A86	5 (0.3) falling	1/8 NPT

### Connector Pinout

#### DIN EN 175301-803 Form A



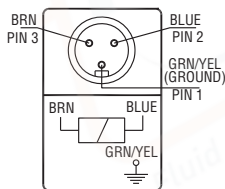
- 1 - Common
- 2 - Normally Closed
- 3 - Normally Open
- G - Ground

## ELECTRICAL CONNECTORS

<b>Pre-wired Connector Kits</b>	<b>Connection Type</b>		<b>Connector Type</b>	<b>Quantity</b>	<b>Length</b> meters (feet)	<b>Cable</b>		<b>Kit Number</b>
						<b>End 1</b>	<b>End 2</b>	<b>Without Light</b>
	Solenoid & Sensing Switch	Solenoid	MINI, 3-pin	1	4 (13.1)	Connector	Flying leads	2239H77
		Sensing Switch	M12, 5-pin	1				
	Solenoid & Sensing Switch	Solenoid	MINI, 3-pin	1	10 (32.8)	Connector	Flying leads	2240H77
		Sensing Switch	M12, 5-pin	1				

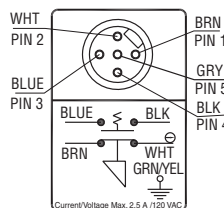
### Solenoid Connector Pinout

#### MINI, 3-pin (Female)



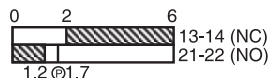
### Sensing Switch Connector Pinout

#### M12, 5-pin (Female)



### Integrated Double-Pole Single-Throw Switch (DPST) Switch States

Contact conditions during switch travel (0 to 6 mm).



The DPST switch is actuated whenever the valve is not in the normal home position.



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## SOLENOID PILOT OPTIONS

Indicator Light Kits	Valve Model	Kit Number		
		24 volts DC	110-120 volts AC, 50-60 Hz	230 volts AC, 50-60 Hz
	Solenoid Pilot Valves	862K87-W	862K87-Z	862K87-Y

## LOCKOUT DEVICE

Lockout Hasp	Valve Model Use	Model Number
	Manual Lockout L-O-X® Classic Style	356A30

## SILENCERS

Silencers	Port Size	Thread Type	Model Number		Flow Avg. C <sub>v</sub>	Pressure Range psig (bar)
			R/Rp Thread	NPT Thread		
	1/2	Male	D5500A4003	5500A4003	4.7	0-290 (0-20) maximum
	3/4	Male	D5500A5013	5500A5013	5.1	
			D5500A5003	5500A5003	12	
	1	Male	D5500A6003	5500A6003	15	

## REPLACEMENT FILTER ELEMENTS

Filter Elements	Filter Series	Bowl Type	Element Material	Model Number		
				Element Rating		
				5-µm	20-µm	40-µm
MD3™	Standard	Standard	Polyethylene	R-A60F-03PE5	–	–
			Sintered Bronze	R-A60F-03E5	R-A60F-03E4	R-A60F-03E3
MD4™	Standard	Standard	Polyethylene	R-A115-106PE5	–	–
			Sintered Bronze	R-A115-106E5	R-A115-106E4	R-A115-106PE3
HIGH-CAPACITY	Standard	Standard	Sintered Bronze	1656K77	–	R-A114-106E3