



SAFE AIR ENTRY SOLUTIONS WITH M35 SERIES DOUBLE VALVES

PRODUCT CATALOG



Air Entry Assemblies with M35 Series Double Valves

Product Overview



Combination with Classic lockout valve



Combination with Modular lockout valve

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

Air entry system via a manual Lockout L-O-X® valve, air preparation FRL combinations, and an M35 Series Safe Exhaust double valve with or without Soft-Start function. 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.

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® Valve 15 Series

- 3/2 valve
- Classic L-O-X® or Modular L-O-X®
- 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

Integrated Filter/Regulator Filter/Regulator, and Lubricator MD4™ Series

- Lubricator with metal bowl
- Integrated 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

Control Reliable Safe Exhaust Double Valve M35 Series

- 3/2 valve
- Valve have both modular receptacles, and female threaded ports, which allows either modular connection or direct piping
- Pressure sensors - for external monitoring of valve state
- Integrated EEZ-ON® (Soft-Start) module option, allows slower build-up of pressure during start-up
- LED indicators - aid troubleshooting
- Built-in silencer

Mounting

Modular or direct piping assembly.

SISTEMA Library

Available for download at rosscontrols.com.

M35 SERIES VALVE PRODUCT CREDENTIALS

Safety Category	DGUV (German Social Accident Insurance)	CE Conformity Declaration	EAC Conformity Declaration	ISO Standard	CSA Certificate of Compliance	CRN Certification
				ISO 13849-1:2015		Available for appropriately tested valves

NOTE: Per specifications and regulations, lockout L-O-X® products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES. These valve assemblies are not designed for controlling clutch/brake mechanisms on mechanical power presses.

MODEL NUMBER CONFIGURATOR with 3-Way 2-Position Valves

M35 Series Valve Soft-Start Option

With Soft-Start	S
Without Soft-Start	X

Lockout Valve Type

Classic L-O-X®*	L
Modular L-O-X®*	M
None	X

* Silencer included.

Filter, Regulator, Lubricator

Integrated Filter/Regulator	F
Filter and Regulator	R
Integrated Filter/Regulator, and Lubricator	L

Extra Port Block (in relation to M35 valve)

Location	Size	Code	Location	Size	Code
Upstream	1/4	2U	Downstream	1/2	4D
Upstream	3/8	3U	Both	1/4	2B
Upstream	1/2	4U	Both	3/8	3B
Downstream	1/4	2D	Both	1/2	4B
Downstream	3/8	3D	None	NA	XX

Thread

G	G
NPT	N

Monitoring

External	
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Voltage

24 volts DC	
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Communication

None	
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Revision Level

G	
A	

Pressure Measuring Device (for M35 Series valve)

Analog Gauge	G
Digital Transducer	T
None (plugged port)	X

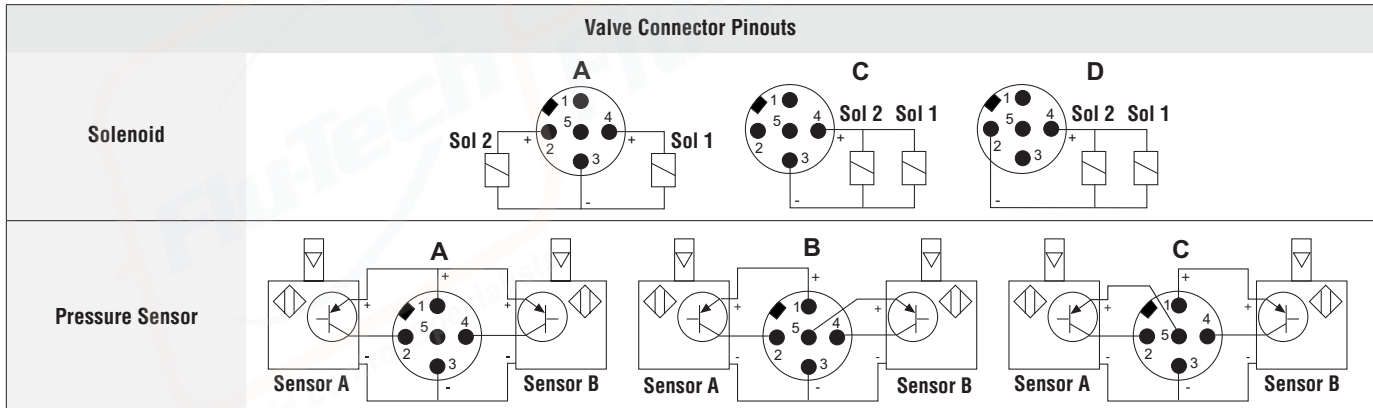
Pin Configuration Combinations

Solenoid	Sensor	Code
A	A	AA
A	B	AB
A	C	AC
C	C	CC
D	B	DB
D	C	DC

Port Size

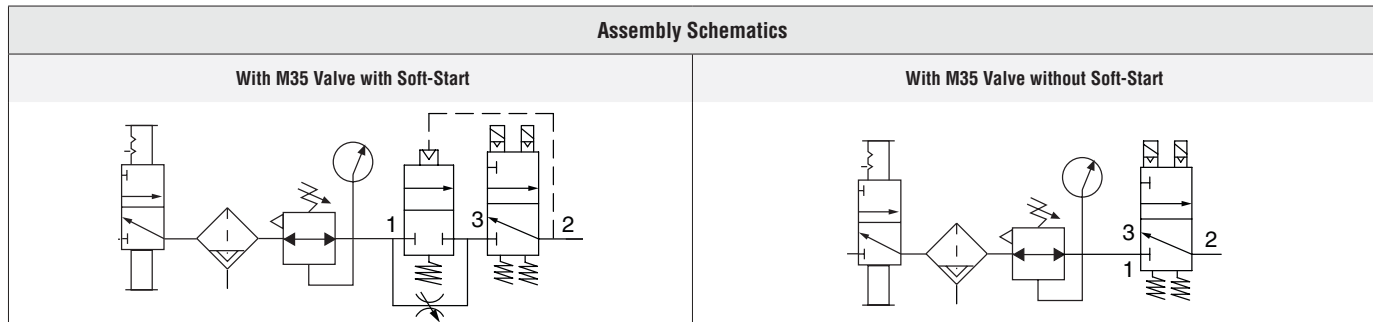
In-Out	Exhaust	M35 Series Valve Exhaust Type	Code
1/2	-	Built-in Silencer	40
3/4	-	Built-in Silencer	50
1/2	1	Threaded Exhaust Flange*	46
3/4	1	Threaded Exhaust Flange*	56

* Silencer not included.



M35 Series Valve

Port Size		Basic Size	Soft-Start	Valve with Built-in Silencer		Valve with Threaded Exhaust Flange	
				Flow Cv		Flow Cv	
1, 2	3	8	With	1-2	2-3	1-2	2-3
1/2 & 3/4			Built-in Silencer or 1" Threaded Exhaust Flange	Without	4.1	7.5	4.1
		Without		4.3	7.5	4.3	7.57



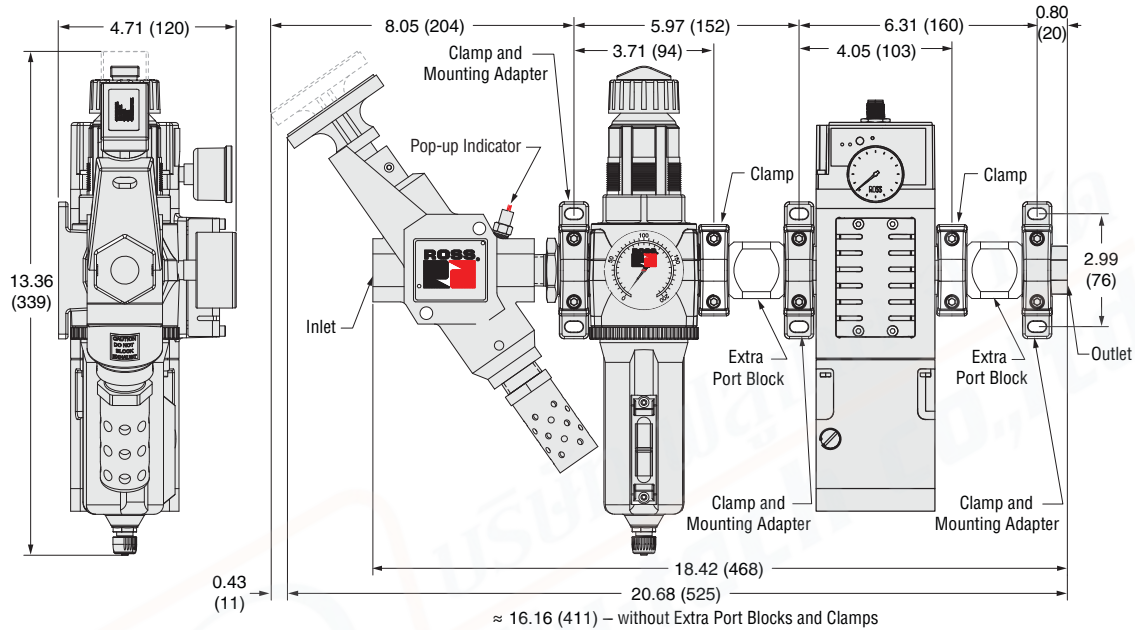
Technical Data

Models with Classic Lockout L-O-X® Valve

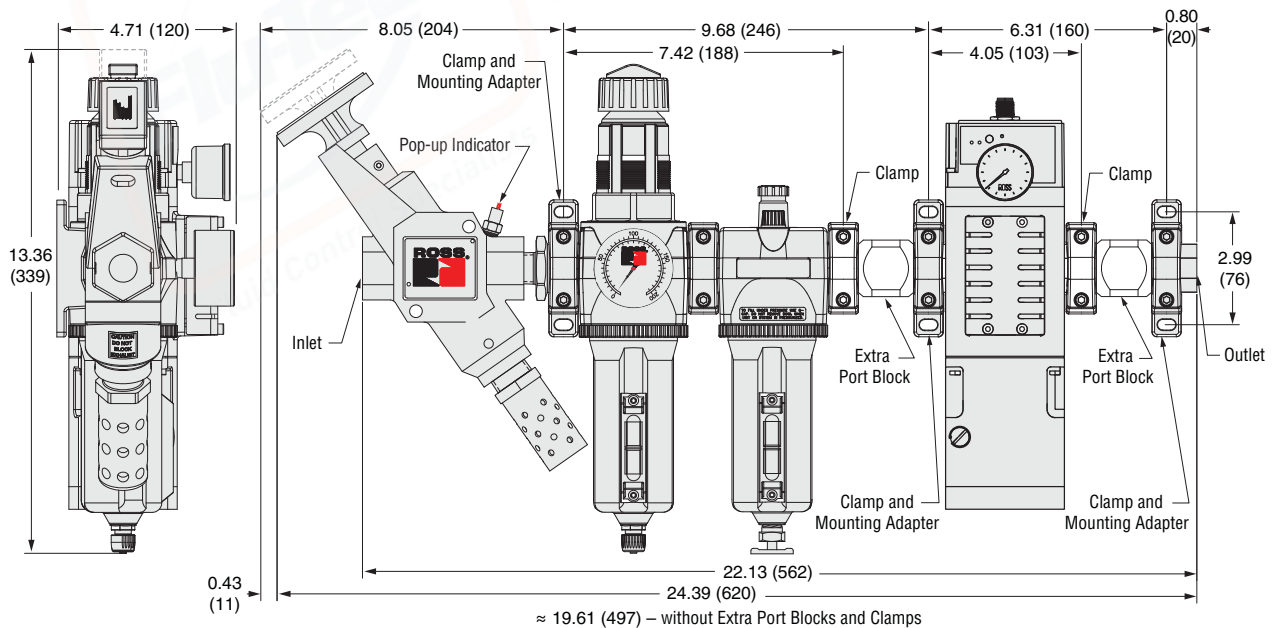
DIMENSIONS

Inches (mm)

with MD4™ Integrated Filter/Regulator option, with or without Extra Port Blocks



with MD4™ Integrated Filter/Regulator and Lubricator option, with or without Extra Port Blocks



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.

An Integration Guide for the M35 Series valves is available from ROSS to provide information such as operation & monitoring, and validation test procedure for valve operation and external monitoring logic.



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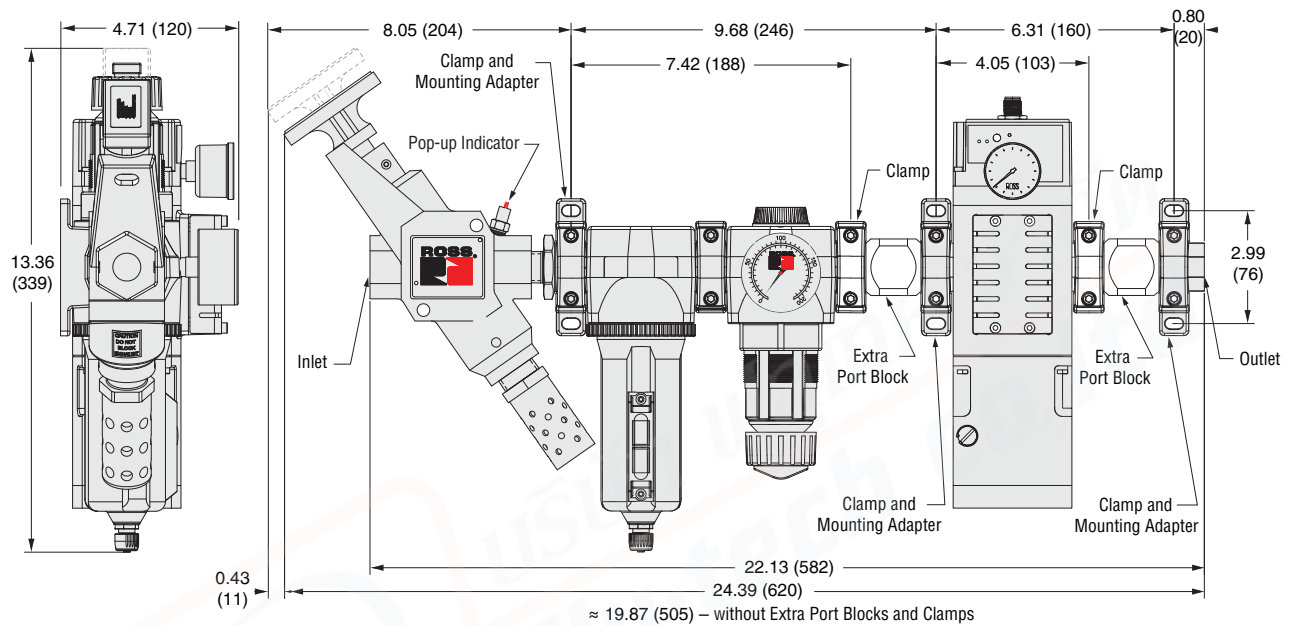
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Models with Classic Lockout L-O-X® Valve

DIMENSIONS

Inches (mm)

with MD4™ Filter and Regulator option, with or without Extra Port Blocks



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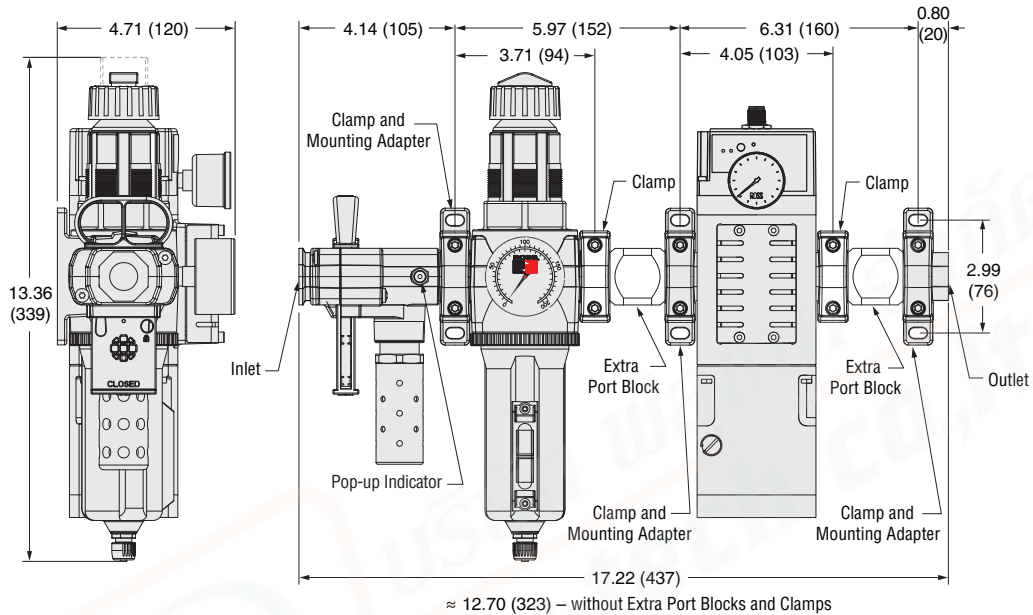
Assembly Technical Data

Models with Modular Lockout L-O-X® Valve

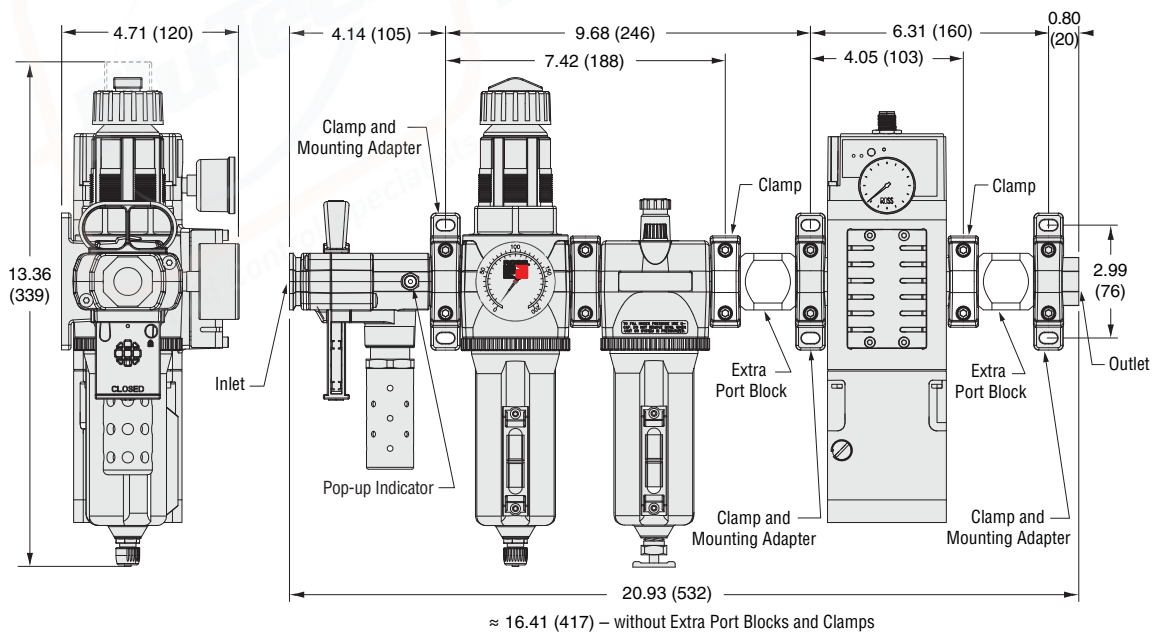
DIMENSIONS

Inches (mm)

with MD4™ Integrated Filter/Regulator option, with or without Extra Port Blocks



with MD4™ Integrated Filter/Regulator and Lubricator option, with or without Extra Port Blocks



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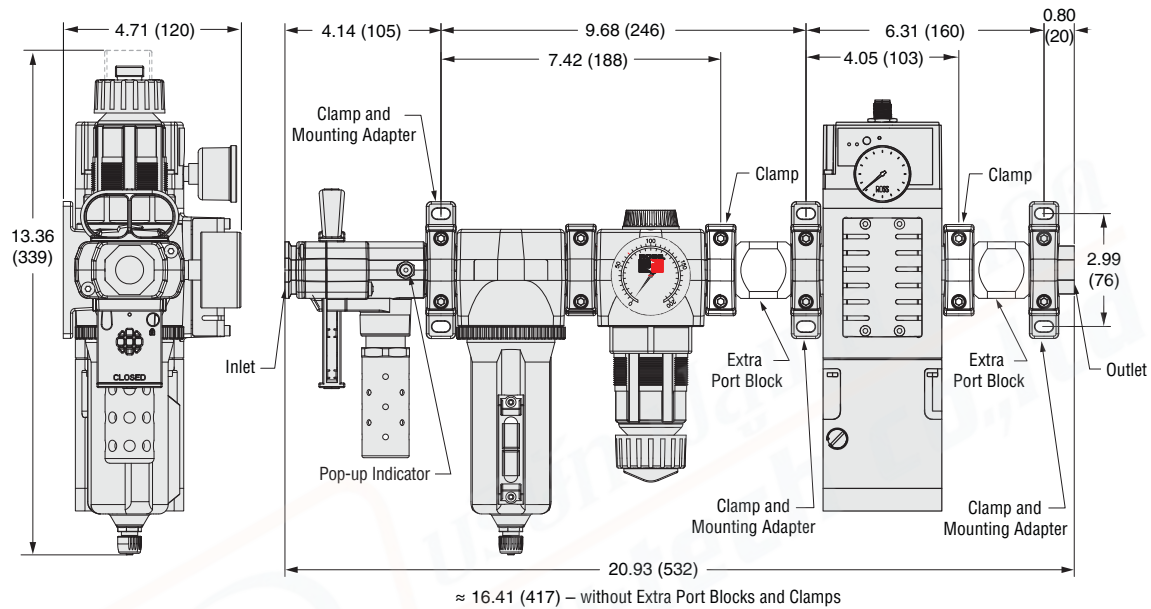
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Models with Modular Lockout L-O-X® Valve

DIMENSIONS

Inches (mm)

with MD4™ Filter and Regulator option, with or without Extra Port Blocks



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Air Entry Assemblies with M35 Series Double Valves and Drip Leg Option

Product Overview

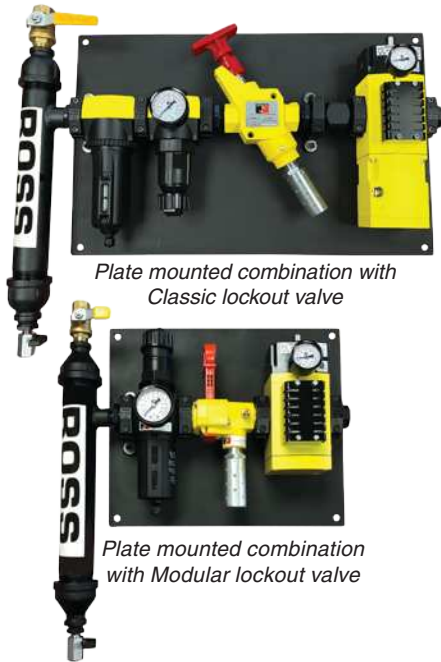


Plate mounted combination with Classic lockout valve

Plate mounted combination with Modular lockout valve

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

Air entry system via an optional drip leg, with integrated filter/regulator “F/R” or an air filter and pressure regulator “FR”, manual Lockout L-O-X® valve, and an M35 Series Safe Exhaust double valve with or without Soft-Start function.

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.

Two types of Lockout Valve - Air Preparation combinations offered:

Type C – with Classic Lockout L-O-X® valve, and filter (with metal bowl) and pressure regulator “FR”

Type M – with Modular Lockout L-O-X® valve, and integrated filter/regulator “F/R” with high-strength polycarbonate plastic bowl.

ASSEMBLY COMPONENTS & FEATURES

Drip Leg

- Inlet and Drain equipped with Ball Valves

Filter and Regulator

MD4™ Series

Filter/Regulator, and Lubricator

MD3™ Series

- Filter with metal bowl
- Integrated 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

Energy Isolation Lockout L-O-X® Valve

15 Series

- 3/2 valve
- Classic L-O-X® or Modular L-O-X®
- 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; Pop-Up indicator included
- High flow, clog resistant; silencers included

Control Reliable Safe Exhaust Double Valve

M35 Series

- 3/2 valve
- Pressure sensors - for external monitoring of valve state
- Integrated EEZ-ON® (Soft-Start) module option, allows slower build-up of during start-up
- LED indicators - aid troubleshooting
- Built-in silencer



Mounting

Modular or direct piping assembly, or plate mounted assembly option

SISTEMA Library

Available for download at rosscontrols.com.

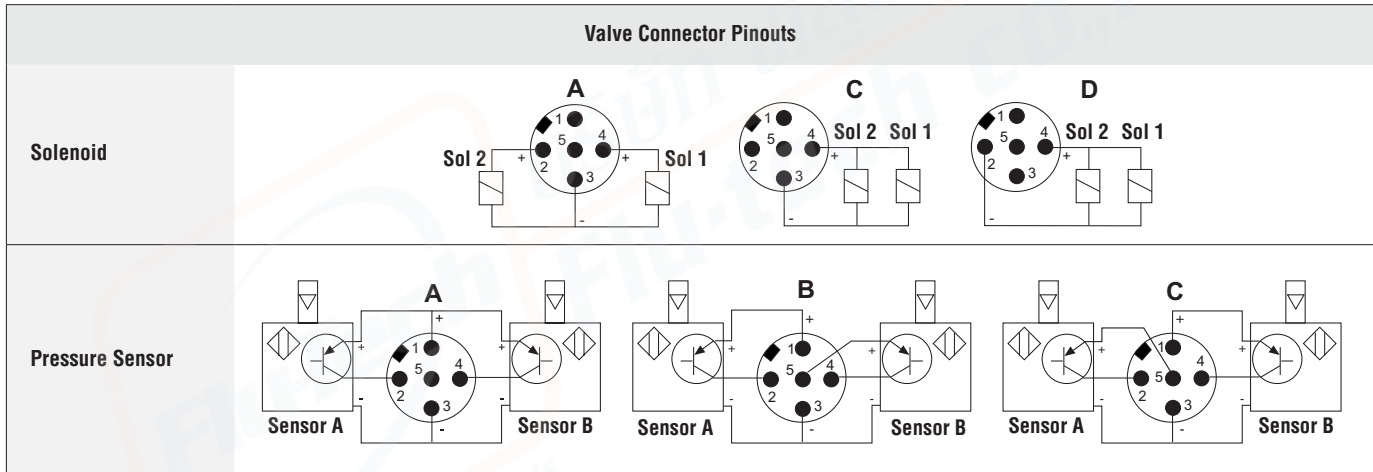
M35 SERIES VALVE PRODUCT CREDENTIALS

Safety Category	DGUV (German Social Accident Insurance)	CE Conformity Declaration	EAC Conformity Declaration	ISO Standard	CSA Certificate of Compliance	CRN Certification
 				ISO 13849-1:2015		Available for appropriately tested valves

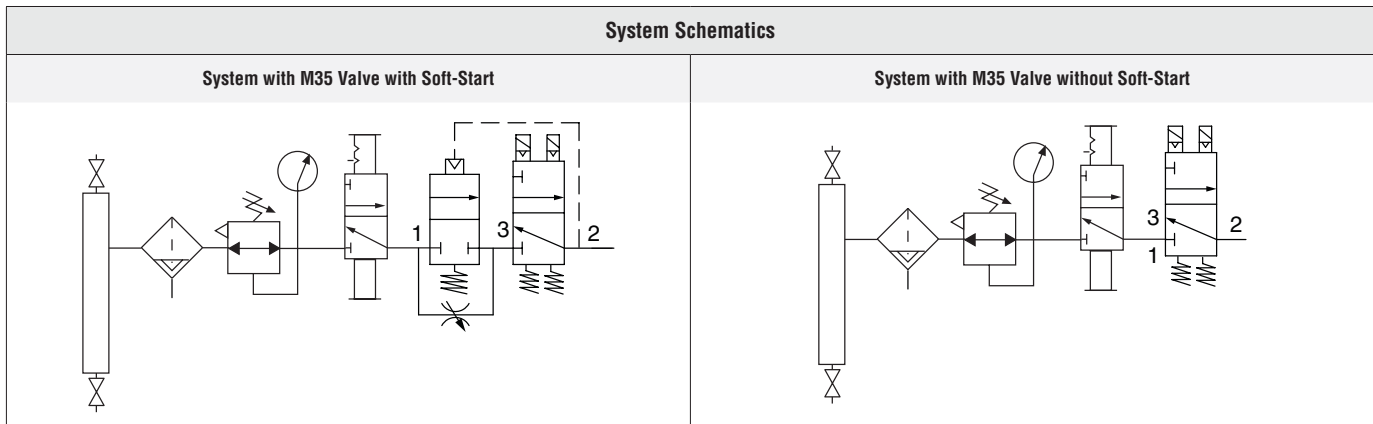
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MODEL NUMBER CONFIGURATOR with 3-Way 2-Position Valves

RCM35	S	4	G	P	D	C	AA	A	
Series			Thread	Drip Leg			Revision Level		
M35 Series Valve Soft-Start Option With Soft-Start S Without Soft-Start X	Port Size		Plate				Pin Configuration Combinations*		
	1/2 4		With P				Solenoid	Sensor	
	3/4 5		Without X				A	A	AA
							A	B	AB
							A	C	AC
							C	C	CC
							D	B	DB
							D	C	DC
Lockout Valve Type	Air Preparation Type								
Classic L-O-X®	Filter and Regulator C								
Modular L-O-X®	Integrated Filter/Regulator M								



M35 Series Valve							
Port Size		Basic Size	Soft-Start	Valve with Built-in Silencer		Valve with Threaded Exhaust Flange	
				Flow Cv		Flow Cv	
1, 2	3			1-2	2-3	1-2	2-3
1/2 & 3/4	Built-in Silencer or 1" Threaded Exhaust Flange	8	With	4.1	7.5	4.1	7.57
			Without	4.3	7.5	4.3	7.57

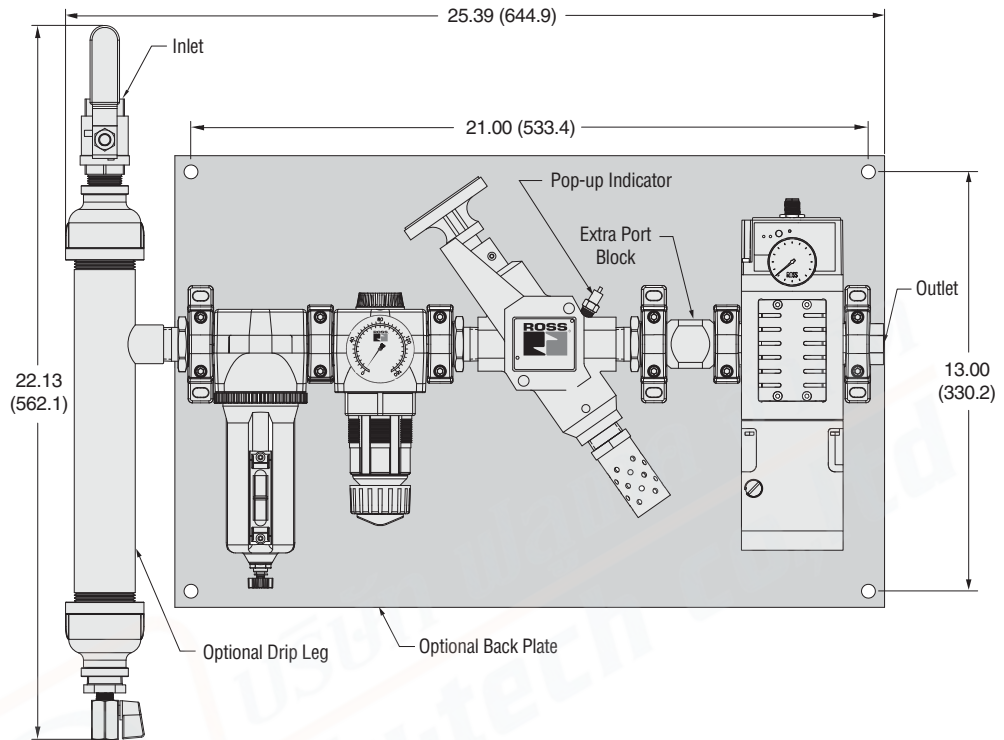


Technical Data

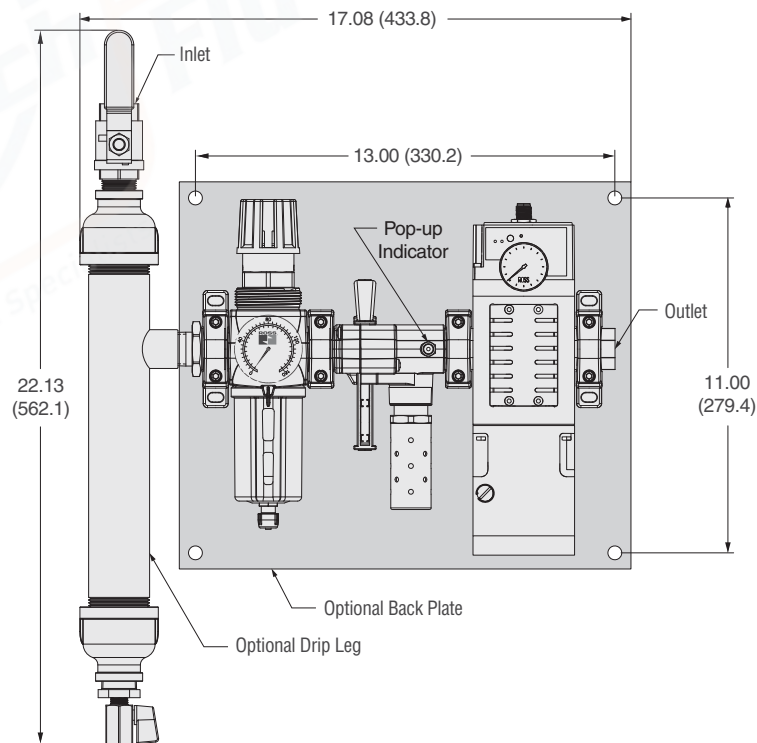
DIMENSIONS

Inches (mm)

Model with Filter and Regulator and Classic Lockout L-O-X® Valve option



Model with Integrated Filter/Regulator and Modular Lockout L-O-X® Valve option



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PRESSURE GAUGE

Analog Pressure Gauge	Mounting	Port Size	Thread Type	Model Number	Pressure Range psig (bar)	Case Diameter inches (mm)
	Center Back	1/8	Male	5400A1002	0-160 (0-11)	1.5 (38)

ENERGY RELEASE VERIFICATION

Visual Pressure Indicator	Verification Type	Installation Location	Indicator Type	Model Number	Port Thread
	Pneumatic	Pressure Sensing Port	Visual Pop-up Pin	988A30	1/8 NPT

Pressure Switch	Verification Type	Installation Location	Connector Type	Model Number	Factory Preset psi (bar)	Port Thread
	Electrical	Pressure Sensing Port or Downstream	DIN EN 175301-803 Form A	586A86	5 (0.3) falling	1/8 NPT

Redundant Pressure Switch Assembly	Verification Type	Installation Location	Connector Type	Model Number	Factory Preset psi (bar)	Port Size
	Electrical (Dual)	Downstream	DIN EN 175301-803 Form A	RC026-13	5 (0.3) falling	3/8 NPT

Connector Pinout

DIN EN 175301-803 Form A



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

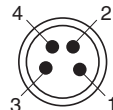
PRESSURE TRANSDUCERS

Digital Pressure Transducers	Monitoring Type	Electrical Connection	Electrical Output	Model Number		Pressure Port Size	Pressure Range psig (bar)	Weight lb (Kg)
				G Thread	NPT Thread			
Electrical	M8, 4 Pin	(1) PNP with (1) 4-20ma	D760B94	760B49	1/8	0 to 145 (0 to 10)	0.099 (0.045)	

For Digital Pressure Readout, Analog 4-20mA Output, and Transistor Switching Output.

Connector Pinout

Sensor Pinout with Analog Output



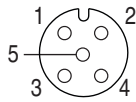
- 1 - Brown - 24 VDC
- 2 - White - 4 to 20mA
- 3 - Blue - 0 VDC
- 4 - Black PNP Open Collector Output 1

Accessories & Options

ELECTRICAL CONNECTORS

Pre-wired Connector Kits	Connection Type	Connector Type	Connector Contacts Type	End 1	End 2	Quantity	Length meters (feet)	Kit Number
								Without Light
Solenoid & Sensor	M12	5-pin straight A-coded	Female Connector	Flying Leads	2	5 (16.4)	2644B77	
							2370B77	
				Female Connector	2	5 (16.4)	2645B77	
							2371B77	

Connector Pinout



- 1 - Brown
- 2 - White
- 3 - Blue
- 4 - Black
- 5 - Grey

LOCKOUT DEVICE

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

SILENCERS

Silencers for Threaded Exhaust Flange Option	Port Size	Thread Type	Model Number		Flow Avg. C _v
			R/Rp Thread	NPT Thread	
	1	Male	D5500A6003	5500A6003	14.6



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MODULAR CONNECTION

M35 Series valves have both modular receptacles for piping and female threaded ports inside receptacles, which allows either modular connection or direct piping. Mounting accessories listed below are used for modular connection to ROSS MD Series filter-regulator units.

Mounting Brackets & Clamp for Module Connections	Options		Model Number	
	Clamp only		R-A118-105	
	Bracket, Screw, and Clamp		R-A118-105M	

Port Block and End Ports	Options	Port Size	Model Number	
			G Thread	NPTF Thread
	Extra Port Blocks	1/2	R-118-106-4W	R-118-106-4
Female End Ports	1/2	R-118-100-4W	R-118-100-4	
	3/4	R-118-100-6W	R-118-100-6	
Male End Ports	1/2	R-118-109-4FW	R-118-109-4F	
	3/4	R-118-109-6FW	R-118-109-6F	

REPLACEMENT FILTER ELEMENTS

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