



ENERGY ISOLATION LOCKOUT & SOFT-START VALVES



ROSS CONTROLS

MANUAL LOCKOUT & EXHAUST L-O-X® VALVES – KEY FEATURES

- Fluorocarbon slipper seals for easy shifting, even after long periods of inactivity
- Easily identified by yellow body with red handle
- Integrated sensing port for pressure verification
- 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

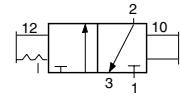
MANUAL LOCKOUT L-O-X® VALVES WITH SOFT-START EEZ-ON® – KEY FEATURES

- Easily identified by blue handle
- Gradual re-application of pneumatic pressure prevents rapid equipment movement at startup
- Lockable only in the OFF position
- Has a full size exhaust port (equal to or larger than supply)
- Positive action (2 positions only)
- Simple push/pull of the large blue handle provides positive direct manual operation
- Integrated sensing port for pressure verification

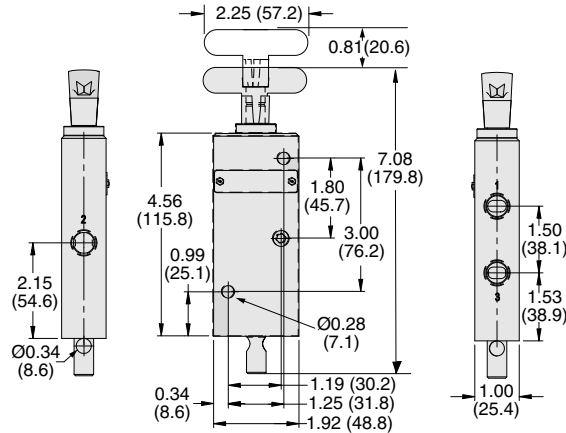
VALVE TYPE	VALVE SERIES	AVAILABLE PORT SIZES											FUNCTIONS		Max Flow (Cv)	Solenoid Control	Pressure Control	Page		
		1/4	3/8	1/2	3/4	1	1¼	1½	2	2½	3	2/2	3/2							
Manual Lockout & Exhaust L-O-X® Valves																				
Slim-Line	15																2.67			A3.3
Modular	15																5.6			A3.4
Classic	15																19.25			A3.5
High-Capacity	15																40.38			A3.6
Stainless Steel	15																39			A3.7 - A3.8
Stainless Steel Cabinet for Wash-Down Applications	RCO																9			A3.9
Piloted Valves with Manual Lockout L-O-X® Control																				
	27																70			A3.10 - A3.11
	27																70			A3.12
	L-O-X®																140			A3.13
	L-O-X®																140			A3.14
Soft-Start EEZ-ON® Valves																				
	27																30			A3.15 - A3.16
	27																29			A3.17
	27																			A3.18 - A3.19
Manual Lockout L-O-X® Valves with Soft-Start EEZ-ON® Operation																				
Modular	15																5.6			A3.20
Classic	15																16.2			A3.21
Piloted Valves with Manual Lockout L-O-X® & Soft-Start EEZ-ON® Operation																				
Manual Pilot Controlled	27																30			A3.22
Solenoid Pilot Controlled	27																30			A3.23 - A2.24



3-Way 2-Position Valve						
Port Size		Valve Model Number		C _v		Weight lb (kg)
1, 2	3	NPT Threads	G Threads	1-2	2-3	
1/4	3/8	Y1523D2002	YD1523D2002	1.84	1.79	0.9 (0.4)
3/8	3/8	Y1523D3012	YD1523D3012	2.67	2.64	0.9 (0.4)



Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

Silencers

Port Size	Thread Type	Model Number	Avg. C _v
3/8	Male - NPT	5500A3013	2.7
	Male - R/Rp	D5500A3013	2.7

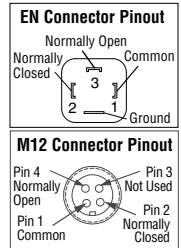
Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.
Flow Media: Filtered air.



Pressure Switches

Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	1/8 NPT

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator

Model Number**	988A30
** 1/8 NPT port threads.	



Multiple Lockout Device

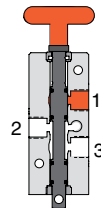
Model Number	356A30
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VALVE OPERATION

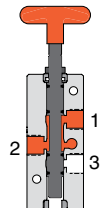
Valved Closed

When the red handle is pushed inward, the flow of supply air is blocked and downstream air is exhausted via the exhaust port. While servicing or maintaining machinery, the L-O-X® valve should be padlocked in this position to prevent the handle from being pulled outward inadvertently where potential for human injury exists.



Valve Open

When the red handle is pulled outward supply air flows freely from inlet to outlet and flow to exhaust is blocked. A detent keeps the handle in the open position.



If a system requires gradual buildup of downstream pressure, see manual L-O-X® valves with EEZ-ON® operation.

STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Lock Hole	Diameter: 0.27 inch (7.0 mm) Length of Hole: 0.43 inch (10.9 mm)
Mounting Type	In-line	Construction Material	Valve Body: Bar Stock Aluminum Spool: 316 Stainless Steel Seals: Fluorocarbon
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		
Fluid Media	Filtered air		
Operating Pressure	0 to 145 psig (0 to 10 bar)		

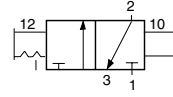
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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

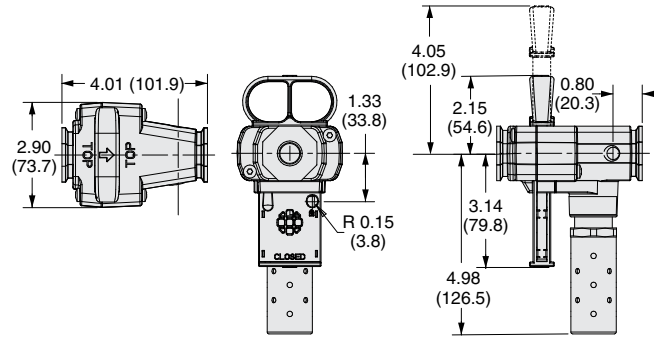
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3-Way 2-Position Valve,						
Port Size		Valve Model Number		C _v		Weight lb (kg)
1, 2	3	NPT Threads	G Threads	1-2	2-3	
1/4	3/4	Y1523A2003	YD1523A2003	3.7	7.8	1.7 (0.8)
3/8	3/4	Y1523A3003	YD1523A3003	5.1	8.3	1.7 (0.8)
1/2	3/4	Y1523A4003	YD1523A4003	5.5	8.6	1.8 (0.8)
3/4	3/4	Y1523A5013	YD1523A5013	5.6	8.1	1.8 (0.8)



Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

Silencers

Port Size	Thread Type	Model Number	Avg. C _v
3/4	Male - NPT	5500A5003	11.5
	Male - R/Rp	D5500A5003	11.5

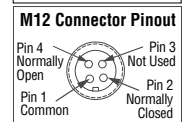
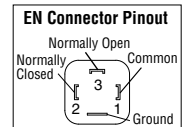
Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.
Flow Media: Filtered air.



Pressure Switches

Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator

Model Number**	988A30
** 1/8 NPT port threads.	



Multiple Lockout Device

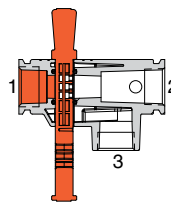
Model Number	356A30
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VALVE OPERATION

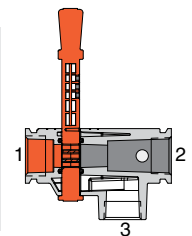
Valved Closed

When the red handle is pushed inward, the flow of supply air is blocked and downstream air is exhausted via the exhaust port. While servicing or maintaining machinery, the L-O-X® valve should be padlocked in this position to prevent the handle from being pulled outward inadvertently where potential for human injury exists.



Valve Open

When the red handle is pulled outward supply air flows freely from inlet to outlet and flow to exhaust is blocked. A detent keeps the handle in the open position.



If a system requires gradual buildup of downstream pressure, see manual L-O-X® valves with EEZ-ON® operation.

STANDARD SPECIFICATIONS (for valves on this page):

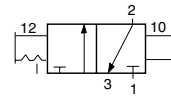
Construction Design	Spool	Lock Hole	Diameter: 0.27 inch (7.0 mm) Length of Hole: 0.43 inch (10.9 mm)
Mounting Type	Modular; In-line	Construction Material	Valve Body: Cast Aluminum Spool: 316 Stainless Steel Seals: Fluorocarbon
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		
Fluid Media	Filtered air		
Operating Pressure	0 to 200 psig (0 to 14 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

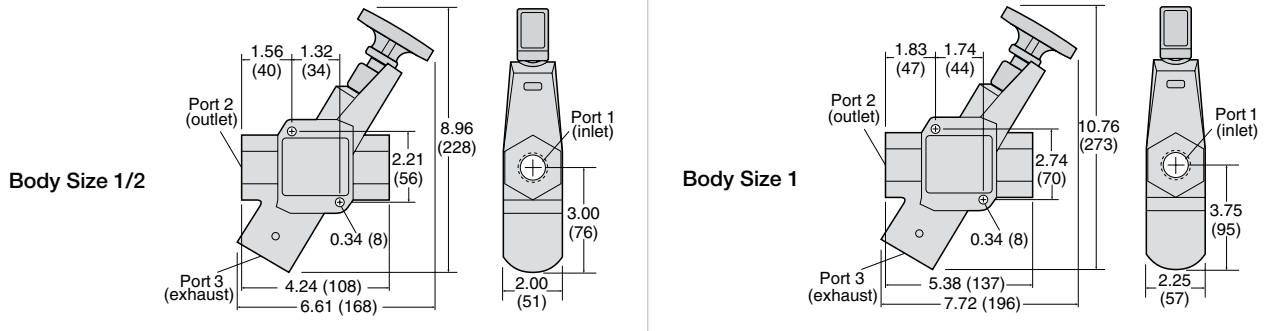
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



3-Way 2-Position Valve							
Port Size		Body Size	Valve Model Number		C _v		Weight lb (kg)
1, 2	3		NPT Threads	G Threads	1-2	2-3	
3/8	3/4	1/2	Y1523C3002	YD1523C3002	4.74	3.57	2.0 (0.9)
1/2	3/4	1/2	Y1523C4002	YD1523C4002	7.10	4	2.0 (0.9)
3/4	3/4	1/2	Y1523C5012	YD1523C5012	8.26	4.10	2.0 (0.9)
3/4	1 1/4	1	Y1523C5002	YD1523C5002	13.12	8.98	3.0 (1.4)
1	1 1/4	1	Y1523C6002	YD1523C6002	16.56	9.52	3.0 (1.4)
1 1/4	1 1/4	1	Y1523C7012	YD1523C7012	19.25	9.74	3.0 (1.4)



Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

Silencers

Port Size	Thread Type	Model Number	Avg. C _v
3/4	Male - NPT	5500A5003	11.5
	Male - R/Rp	D5500A5003	11.5
1 1/4	Male - NPT	5500A7013	16.4
	Male - R/Rp	D5500A7013	16.4

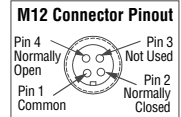
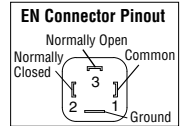
Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.
Flow Media: Filtered air.



Pressure Switches

Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator

Model Number** 988A30

** 1/8 NPT port threads.



Multiple Lockout Device

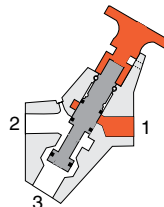
Model Number 356A30



VALVE OPERATION

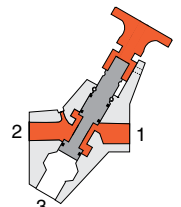
Valved Closed

With a short push of the red handle inward, the flow of supply air is blocked and downstream air is exhausted via the exhaust port at the bottom of the valve. The L-O-X® valve should be padlocked in this position to prevent the handle from being pulled outward inadvertently where potential for human injury exists or while servicing machinery.



Valve Open

When the red handle is pulled out, supply air flows freely from inlet to outlet and flow to exhaust is blocked. A detent keeps the handle in the open position. The handle is not designed to be locked in this position, thereby providing for ready shut-off when necessary.



If a system requires gradual buildup of downstream pressure, see manual L-O-X® valves with EEZ-ON® operation.

STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Operating Pressure	0 to 300 psig (0 to 20.7 bar)
Mounting Type	In-line	Construction Material	Valve Body: Cast Aluminum Spool: 316 Stainless Steel Seals: Fluorocarbon
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		
Fluid Media	Filtered air		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



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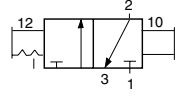
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Manual Lockout & Exhaust L-O-X® Valves High-Capacity

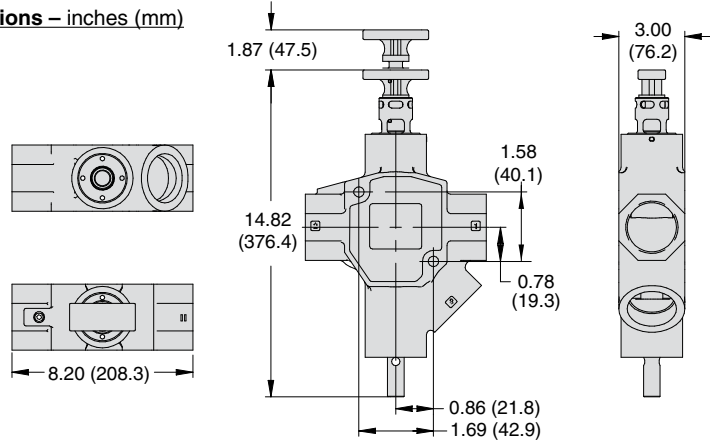
Energy Isolation 15 Series

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3-Way 2-Position Valve						
Port Size		Valve Model Number		C _v		Weight lb (kg)
1, 2	3	NPT Threads	G Threads	1-2	2-3	
1½	2	Y1523C8002	YD1523C8002	35.53	50.98	8.3 (3.7)
2	2	Y1523C9012	YD1523C9012	40.38	52.23	8.3 (3.7)



Valve Dimensions – inches (mm)



Valves can be padlocked in two locations, at the handle or at the end of the spool.

ACCESSORIES & OPTIONS

Silencers

Port Size	Thread Type	Model Number	Avg. C _v
2	Female - NPT	5500B9001	34.2
	Female - R/Rp	D5500B9001	34.2

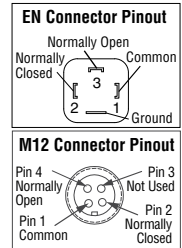
Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.
Flow Media: Filtered air.



Pressure Switches

Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator

Model Number**	988A30
** 1/8 NPT port threads.	



Multiple Lockout Device

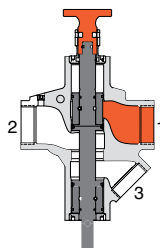
Model Number	356A30
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VALVE OPERATION

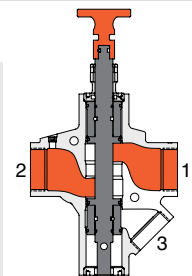
Valved Closed

With a short push of the red handle inward, the flow of supply air is blocked and downstream air is exhausted via the exhaust port while servicing or maintaining machinery. Padlock the L-O-X® valve in this position to prevent the handle from being pulled outward inadvertently to avoid potential for human injury while servicing machinery.



Valve Open

When the red handle is pulled out, supply air flows freely from inlet to outlet and flow to exhaust is blocked. A detent keeps the handle in the open position. The handle is not designed to be locked in this position, thereby providing for ready shut-off when necessary.



If a system requires gradual buildup of downstream pressure, see manual L-O-X® valves with EEZ-ON® operation.

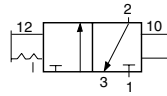
STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Lock Hole	Diameter: 0.27 inch (7.0 mm) Length of Hole: 0.43 inch (10.9 mm)
Mounting Type	In-line		Construction Material
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		
Fluid Media	Filtered air		
Operating Pressure	0 to 300 psig (0 to 20.7 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

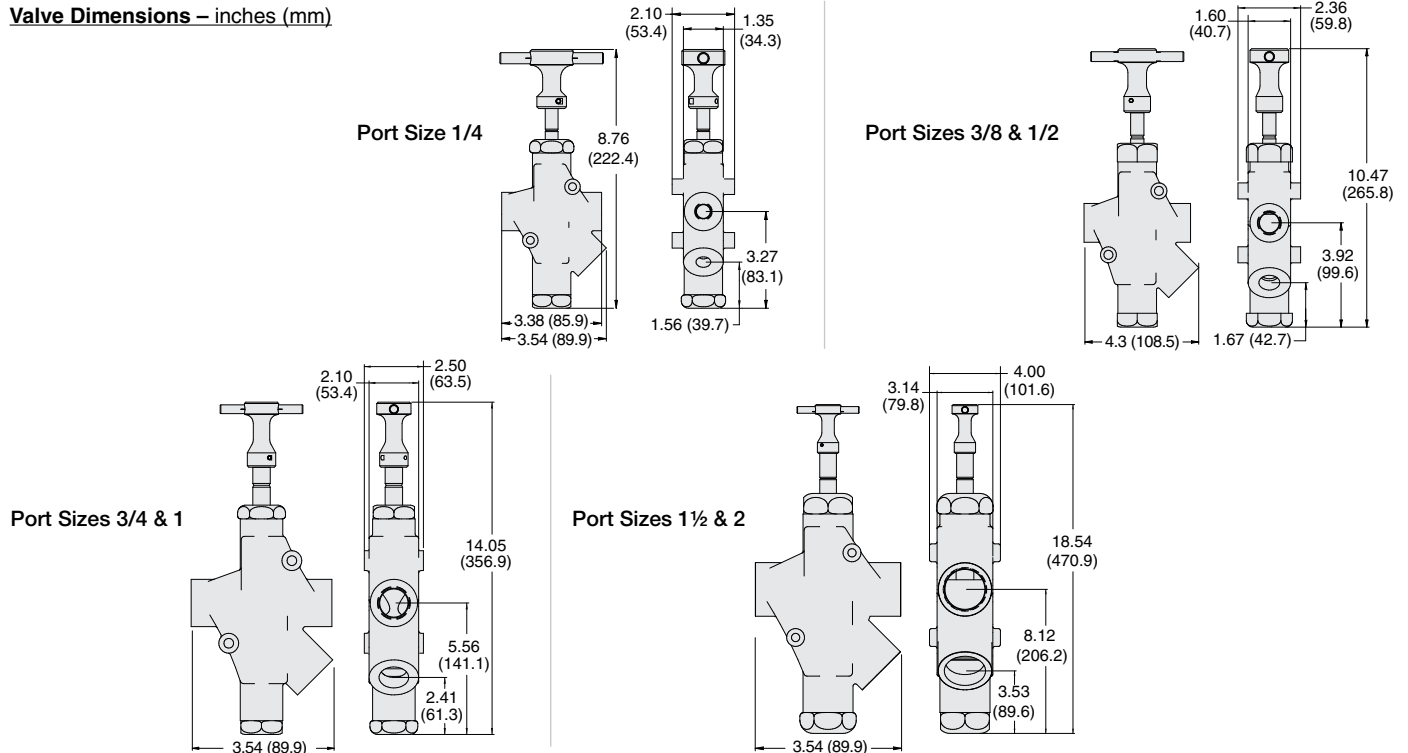
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

3-Way 2-Position Valve						
Port Size		Valve Model Number		C _v		Weight lb (kg)
1, 2	3	NPT Threads	G Threads	1-2	2-3	
1/4	1/4	1523B2004	D1523B2004	2.14	2.08	3.75 (1.70)
3/8	1/2	1523B3004	D1523B3004	5.79	6.24	6.0 (2.72)
1/2	1/2	1523B4004	D1523B4004	5.79	6.24	6.0 (2.72)
3/4	1	1523B5004	D1523B5004	14.30	17	13.0 (5.89)
1	1	1523B6004	D1523B6004	14.30	17	13.0 (5.89)
1½	2	1523B8004	D1523B8004	39	45	35.0 (15.87)
2	2	1523B9004	D1523B9004	39	45	35.0 (15.87)



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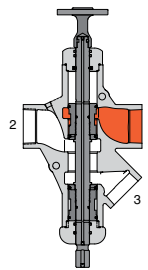
Valve Dimensions – inches (mm)



VALVE OPERATION

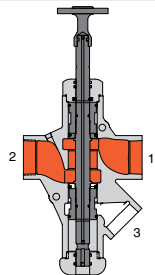
Valve Closed

With a push of the handle inward, the flow of supply air is blocked and downstream air is exhausted via the exhaust port while servicing or maintaining machinery. Padlock the L-O-X® valve in this position to prevent the handle from being pulled outward inadvertently to avoid potential for human injury while servicing machinery.



Valve Open

When the handle is pulled out, supply air flows freely from inlet to outlet and flow to exhaust is blocked. A detent keeps the handle in the open position. The handle is not designed to be locked in this position, thereby providing for ready shut-off when necessary.



STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Lock Hole	Diameter: Port Sizes 1/4 thru 2: 0.34 inch (8.64 mm) Length of Hole: Port Size 1/4: 0.44 in (11.17 mm). Port Size 1/2: 0.47 in (11.93 mm) Port Size 1 and 2: 0.55 inch (13.97 mm).
Mounting Type	In-line		
Temperature	Ambient/Media: 30° to 175°F (-1° to 80°C) <i>Note: For lower temperature ratings, consult ROSS.</i>	Construction Material	Valve Body: 316 Stainless Steel Spool: 316 Stainless Steel Seals: Fluorocarbon
Fluid Media	Filtered air		
Operating Pressure	0 to 300 psig (0 to 20.7 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



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Stainless Steel Silencers

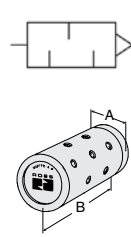
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- Supplied with a standard pipe thread fitting for attaching directly to the exhaust ports of air-operated equipment
 - » Models with 1/4" & 1/2" port size, all thread forms, have all stainless steel construction
 - » Models with 1" port size and NPT threads have all stainless steel construction
 - » Models with 1" port size and BSPT threads have standard construction consisting of nickel plated cold rolled steel
 - » Models with 2" port size, all thread forms, have standard construction consisting of nickel plated cold rolled steel

Port Size	Thread Type	Model Number		Avg. C _v	Dimensions inches (mm)		Weight lb (kg)
		NPT Threads	R/Rp Threads		A	B	
1/4	Male	5500B2004	D5500B2004	1.44	0.56 (14.2)	1.75 (44.5)	0.05 (0.23)
1/2	Male	5500B4004	D5500B4004	3.01	0.87 (22.1)	2.75 (69.7)	0.25 (0.11)
1	Male	5500B6004	D5500B6004	10.41	1.31 (33.3)	3.87 (98.3)	0.45 (0.20)
2	Male	5500A9004	D5500A9004	28.11	2.37 (60.2)	5.50 (139.7)	1.5 (0.68)

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

Flow Media: Filtered air.



Silencers for Stainless Steel L-O-X® Air Entry Assemblies

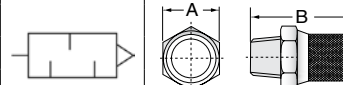
- 316 Stainless Steel sintered element silencers used to protect ports open to the atmosphere.

Port Size	Thread Type	Model Number		Avg. C _v	Dimensions inches (mm)	
		NPT Threads	BSP Threads		A	B
1/4	Male	5500A2005	D5500A2005	1.5	0.67 (17)	1.50 (38)
1/2	Male	5500A4005	D5500A4005	3.5	0.94 (24)	2.17 (55)
1	Male	5500A6005	D5500A6005	5.7	1.41 (36)	2.95 (75)

Pressure Range: 0 to 174 psig (0 to 12 bar) maximum.

Flow Media: Filtered air.

Seals: Nitrile.



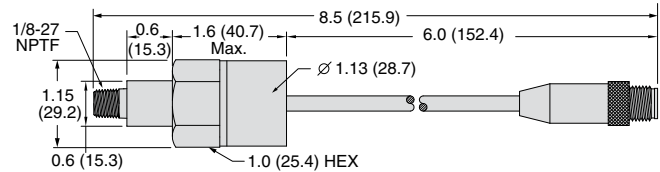
Stainless Steel Pressure Switch

- 316 Stainless Steel Body
- Nitrile Seals
- DPDT (Double-Pole Double-Throw Switch)
- Factory preset 5 psi (falling)

Inlet Port Size	Model Number	Weight lb (kg)
1/8	1162A30	0.23 (.01)



NPT port threads.

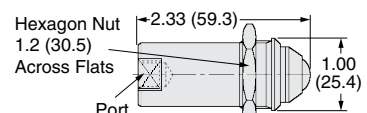


Stainless Steel Visual Indicator

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

Inlet Port Size	Model Number	Dimensions inches (mm)		Weight lb (kg)
		A	B	
1/8	1155H30	2.33 (59.3)	1.00 (25.4)	0.22 (0.1)

NPT port threads.



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

Stainless Steel Cabinet for Wash-Down Applications

Pneumatic Energy Isolation (LOTO) Air Entry Assemblies

- Stainless steel control cabinet includes filter/regulator and Category 4 DM²® Series valve for Air Entry Control
- Stainless steel construction, designed for wash-down areas
- Control cabinet is built with slanted top to avoid pooling
- Control Reliable Energy Isolation

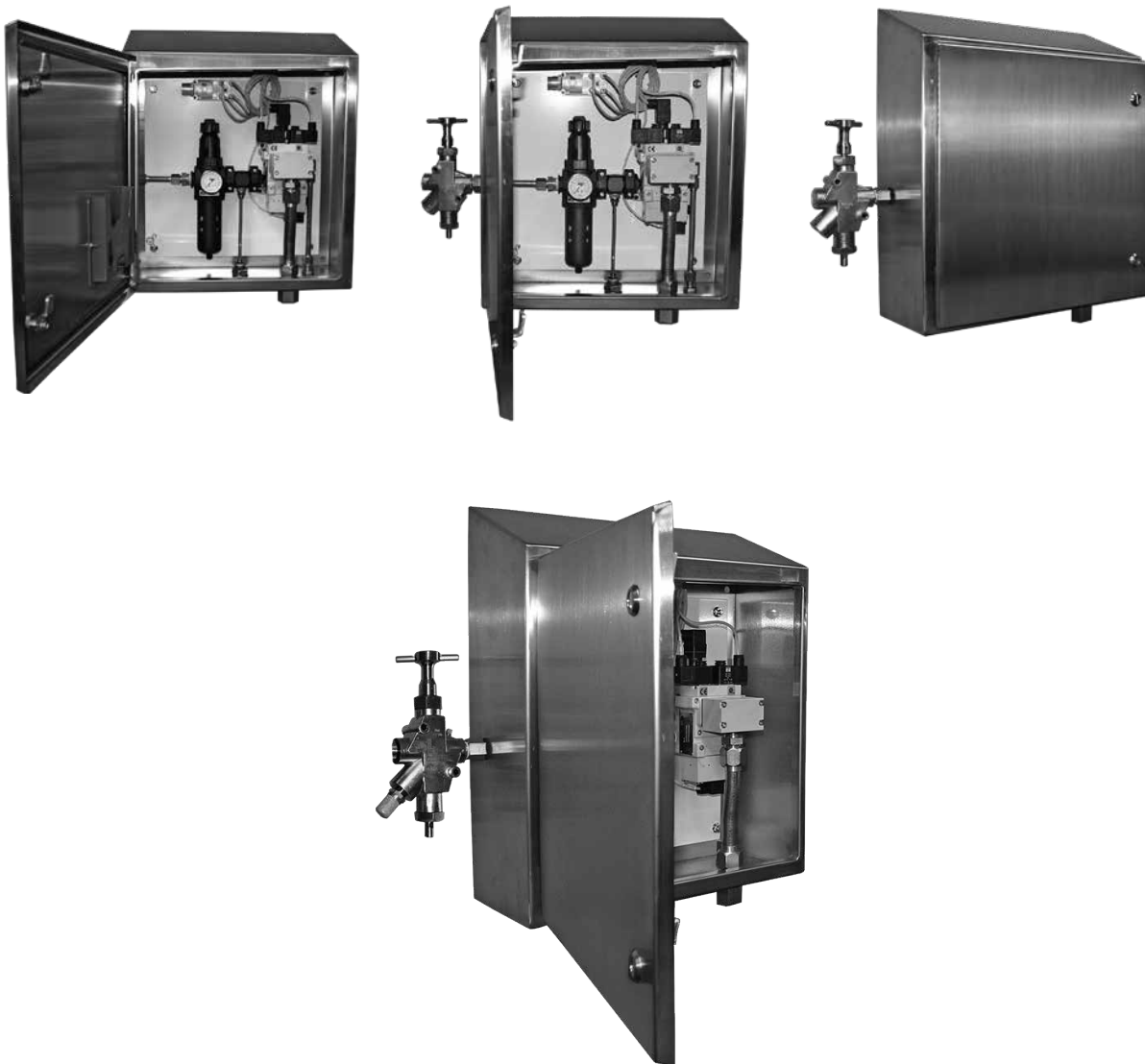
Cat. 2
PL c

Cat. 3
PL d

Cat. 4
PL e

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APPLICATIONS:

- Chemical Processing • Forestry • Mining • Pharmaceutical
- Pulp and Paper • Oil and Gas • Off-shore Industries

Will build to your specifications!

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.



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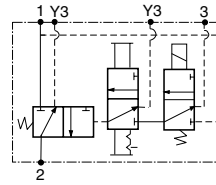
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3-Way 2-Position Valve

Port Size			Body Size	Valve Model Number		C _v		Weight lb (kg)
1, 2	3	NPT Threads		G Threads	1-2	2-3		
1/4	1/2	3/8	Y2773A2072W	YD2773A2072W	2.5	3.1	3.5 (1.6)	
3/8	1/2	3/8	Y2773A3072W	YD2773A3072W	3.6	5.3	3.5 (1.6)	
1/2	1/2	3/8	Y2773A4082W	YD2773A4082W	3.3	5.3	3.5 (1.6)	
1/2	1	3/4	Y2773A4072W	YD2773A4072W	6.3	9.2	4.3 (1.9)	
3/4	1	3/4	Y2773A5072W	YD2773A5072W	7.7	11	4.3 (1.9)	
1	1	3/4	Y2773A6082W	YD2773A6082W	8	12	4.3 (1.9)	
1	1½	1¼	Y2773A6072W	YD2773A6072W	23	34	8.0 (3.6)	
1¼	1½	1¼	Y2773A7072W	YD2773A7072W	30	32	8.0 (3.6)	
1½	1½	1¼	Y2773A8082W	YD2773A8082W	30	31	8.0 (3.6)	
1½	2½	2	Y2773A8072W	YD2773A8072W	68	70	17.5 (7.9)	
2	2½	2	Y2773A9072W	YD2773A9072W	70	70	17.5 (7.9)	
2½	2½	2	Y2773A9082W	YD2773A9082W	70	71	17.5 (7.9)	



Cat. 1
PL b



Voltage: W=24 VDC; Z=110-120 VAC, 50/60 Hz, e.g., Y2773A2072Z. For other voltages, consult ROSS.

ACCESSORIES & OPTIONS

Silencers

Port Size	Thread Type	Model Number		Avg. C _v
		NPT Threads	R/Rp Threads	
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9
2½	Female	5500A9002	D5500A9002	103.7

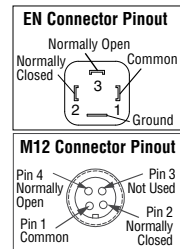
Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.
Flow Media: Filtered air.



Pressure Switches

Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator

Model Number**	988A30
** 1/8 NPT port threads.	



Multiple Lockout Device

Model Number	356A30
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Indicator Light Kits

Kit Number		Indicator Light
24 volts DC	110-120 volts AC 50-60 Hz	
862K87-W	862K87-Z	

STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Poppet	Pilot Supply	Internal or External
Mounting Type	In-line	Operating Pressure	Body Size 3/8 thru 1½: 15 to 150 psig (1 to 10 bar) Body Size 2: 30 to 150 psig (2 to 10 bar)
Solenoids	AC or DC power; Rated for continuous duty	Construction Material	Valve Body: Cast Aluminum Poppet: Acetal and Stainless Steel Seals: Buna-N; Fluorocarbon
Voltage	24 volts DC; 110-120 volts AC, 50/60 Hz	Safety Integrity Level (SIL) - Certified by TÜV Rheinland in accordance with IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.	
Power Consumption (each solenoid)	14 watts on DC; 87 VA inrush, 30 VA holding on 50 or 60 Hz		
Temperature	Ambient: 40° to 120°F (4° to 50°C) Media: 40° to 175°F (4° to 80°C)		
Flow Media	Filtered air		

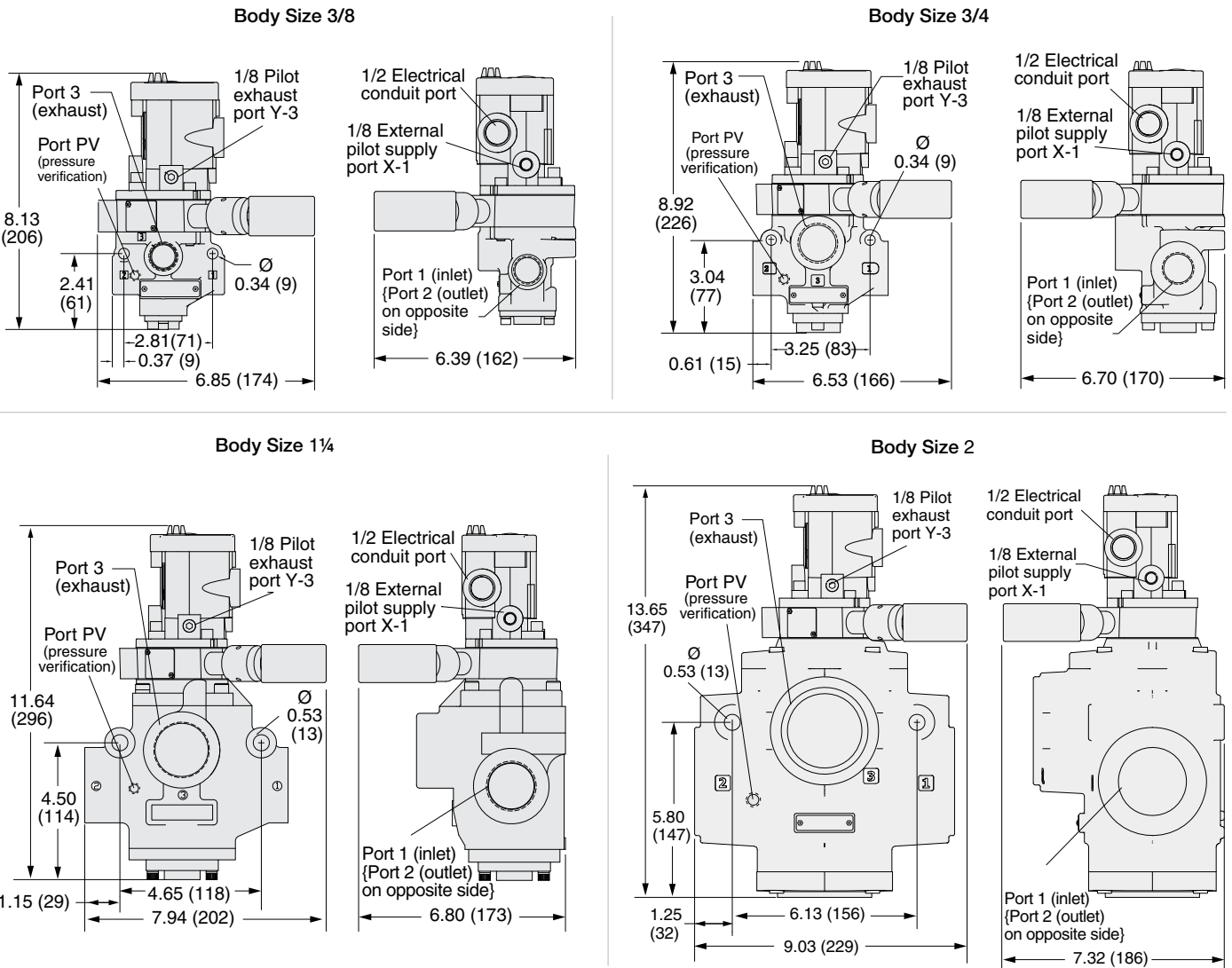
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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

Piloted Valves with Manual Lockout L-O-X® Control Solenoid Pilot Controlled

Energy Isolation 27 Series

Valve Dimensions – inches (mm)

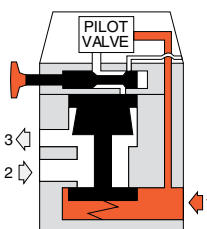


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VALVE OPERATION

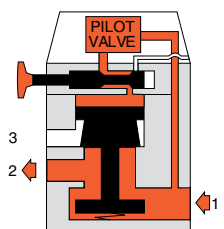
Pilot De-energized

With the solenoid pilot de-energized (regardless of the position of the L-O-X® handle) the inlet poppet remains closed. The outlet port is connected to the exhaust port so that pressure in the downstream lines is vented to atmosphere.



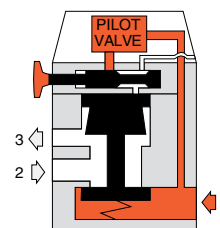
Pilot Energized

With the solenoid pilot energized and the L-O-X® control in the open position, air can flow from inlet to outlet port. The exhaust port is closed.



L-O-X® Valve Closed

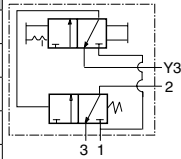
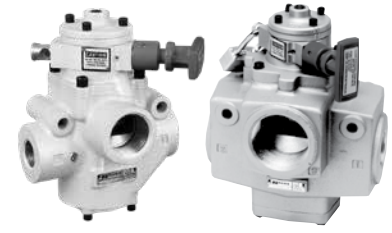
With the handle pushed inward, the L-O-X® control is closed, and air to the valve piston is cut off. This allows the inlet poppet to be closed by its spring and the pressure of the inlet air. The outlet is connected to exhaust so downstream pressure is vented.



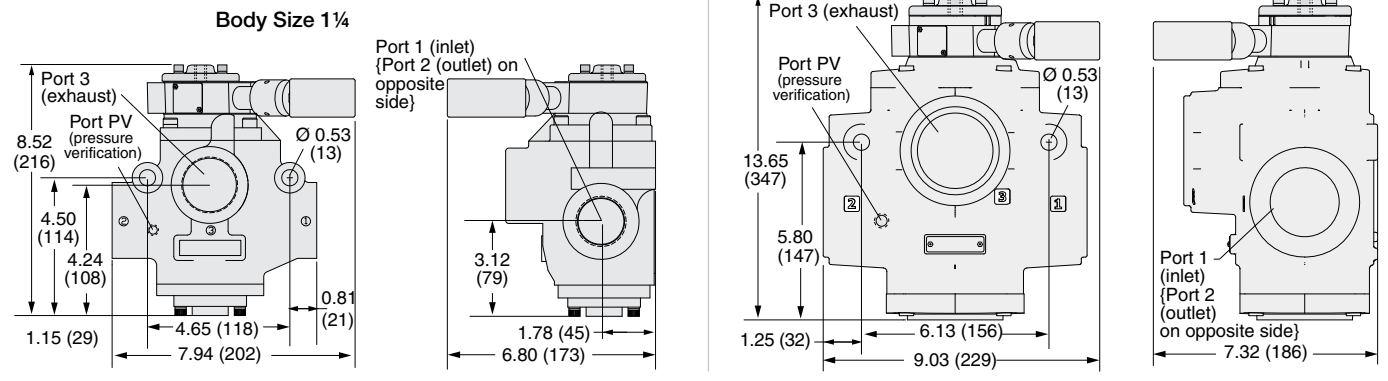
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3-Way 2-Position Valve, Internal Pressure Controlled								
Port Size			Body Size	Valve Model Number		C _v		Weight lb (kg)
1, 2	3	NPT Threads		G Threads	1-2	2-3		
1	1½	1¼	Y2783A6006	YD2783A6006	23	34	7.0 (3.2)	
1¼	1½	1¼	Y2783A7006	YD2783A7006	30	32	7.0 (3.2)	
1½	1½	1¼	Y2783A8016	YD2783A8016	30	31	7.0 (3.2)	
1½	2½	2	Y2783A8006	YD2783A8006	68	70	15.3 (6.9)	
2	2½	2	Y2783A9006	YD2783A9006	70	70	15.3 (6.9)	
2½	2½	2	Y2783A9016	YD2783A9016	70	71	15.3 (6.9)	



Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

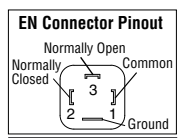
Silencers				
Port Size	Thread Type	Model Number		Avg. C _v
		NPT Threads	R/Rp Threads	
1½	Female	5500A8001	D5500A8001	29.9
2½	Female	5500A9002	D5500A9002	103.7

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

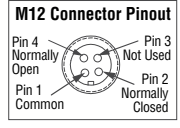


Pressure Switches		
Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator	Model Number**	988A30
	** 1/8 NPT port threads.	

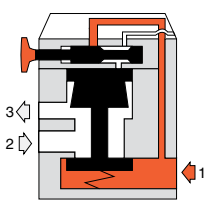


Multiple Lockout Device	Model Number	356A30
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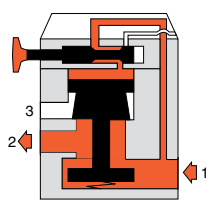


VALVE OPERATION

Valve Closed With a short push of the red handle inward the flow of supply air is blocked and downstream air is exhausted via the exhaust port. Air pressure on the inlet and exhaust poppets produces a large closing force. The L-O-X® valve should be padlocked in this position to prevent the handle from being pulled outward inadvertently when potential for human injury exists or servicing machinery.



Valve Open With the red handle pulled out, pilot air flows to the top of the actuating piston, causing it to open the inlet poppet. Supply air then flows freely from inlet to outlet, and the exhaust port is blocked. A detent keeps the L-O-X® handle in the open position. The handle is designed not to be locked in the open position, thereby allowing for quick shut-off when necessary.



STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Poppet	Construction Material	Valve Body: Cast Aluminum Poppet: Acetal and Stainless Steel Seals: Buna-N; Fluorocarbon
Mounting Type	In-line	Safety Integrity Level (SIL) - Certified by TÜV Rheinland in accordance to IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.	
Temperature	40° to 175°F (4° to 80°C)		
Flow Media	Filtered air		
Pilot Supply	External		
Operating Pressure	Body Size 1¼: 15 to 150 psig (1 to 10 bar) Body Size 2: 30 to 150 psig (2 to 10 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



Piloted Valves with Manual Lockout L-O-X[®] Control

Solenoid Pilot Controlled

Energy Isolation

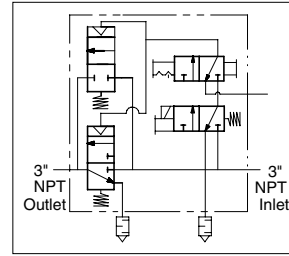
L-O-X[®] Series

3 Inch L-O-X[®] Valve for Lockout

3-Way 2-Position Valve

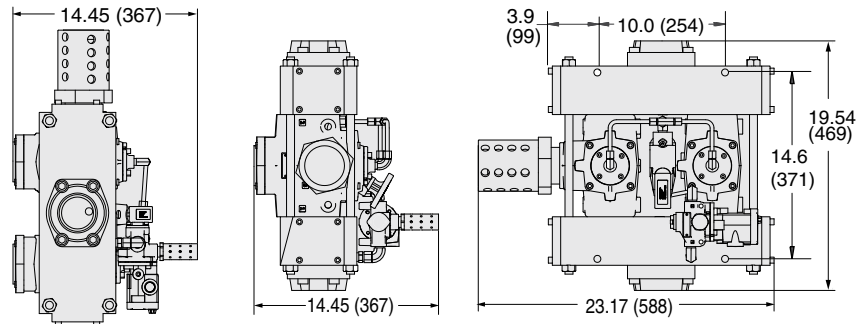
Port Size		Valve Model Number#	C _v		Weight lb (kg)
1, 2	3	NPT Threads	1-2	2-3	
3	2½	Y3900A0896W	140	71	115 (53.0)

Voltage: W=24 VDC; Z=110-120 VAC, 50/60 Hz, e.g., Y3900A0896Z.
For other voltages, consult ROSS.



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Valve Dimensions – inches (mm)



OPTIONS

Multiple Lockout Device

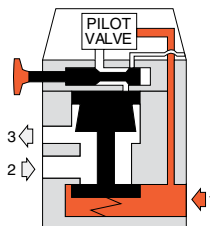
Model Number 356A30



VALVE OPERATION

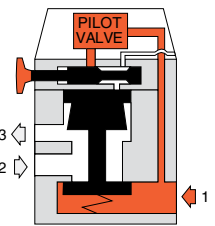
Pilot De-energized

With the solenoid pilot de-energized (regardless of the position of the L-O-X[®] handle) the inlet poppet remains closed. The outlet port is connected to the exhaust port so that pressure in the downstream lines is vented to atmosphere.



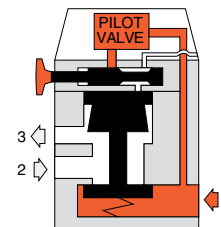
Pilot Energized

With the solenoid pilot energized and the L-O-X[®] control in the open position, air can flow from inlet to outlet port. The exhaust port is closed.



L-O-X[®] Valve Closed

With the handle pushed inward, the L-O-X[®] control is closed, and air to the valve piston is cut off. This allows the inlet poppet to be closed by its spring and the pressure of the inlet air. The outlet is connected to exhaust so downstream pressure is vented.



STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Flow Media	Filtered air
Mounting Type	In-line	Pilot Supply	Internal or External
Solenoids	AC or DC power; Rated for continuous duty	Operating Pressure	30 to 150 psig (2 to 10 bar)
Voltage	24 volts DC; 110-120 volts AC, 50/60 Hz	Construction Material	Valve Body: Cast Aluminum Spool: 316 Stainless Steel Seals: Fluorocarbon
Power Consumption (each solenoid)	14 watts on DC; 87 VA inrush, 30 VA holding on 50 or 60 Hz	Safety Integrity Level (SIL) - Certified by TÜV Rheinland in accordance with IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.	
Temperature	Ambient: 40° to 120°F (4° to 50°C) Media: 40° to 175°F (4° to 80°C)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



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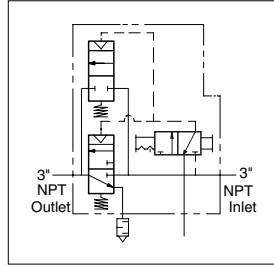
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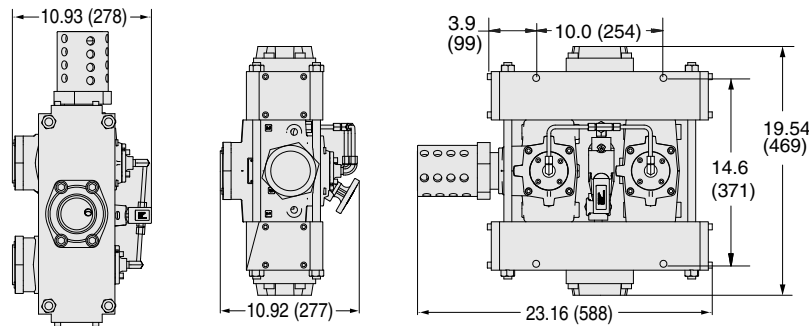
3 Inch L-O-X® Valve for Lockout

3-Way 2-Position Valve

Port Size		Valve Model Number	C _v		Weight lb (kg)
1, 2	3	NPT Threads	1-2	2-3	
3	2½	Y3900A0829	140	71	110 (49.9)



Valve Dimensions – inches (mm)



OPTIONS

Multiple Lockout Device

Model Number

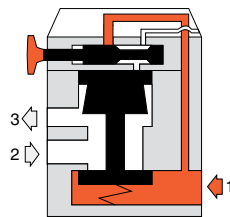
356A30



VALVE OPERATION

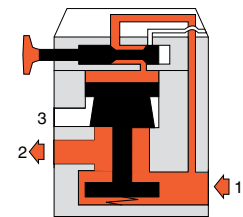
Valve Closed

With a short push of the red handle inward the flow of supply air is blocked and downstream air is exhausted via the exhaust port. Air pressure on the inlet and exhaust poppets produces a large closing force. The L-O-X® valve should be padlocked in this position to prevent the handle from being pulled outward inadvertently when potential for human injury exists or servicing machinery.



Valve Open

With the red handle pulled out, pilot air flows to the top of the actuating piston, causing it to open the inlet poppet. Supply air then flows freely from inlet to outlet, and the exhaust port is blocked. A detent keeps the L-O-X® handle in the open position. The handle is designed not to be locked in the open position, thereby allowing for quick shut-off when necessary.



STANDARD SPECIFICATIONS (for valves on this page):

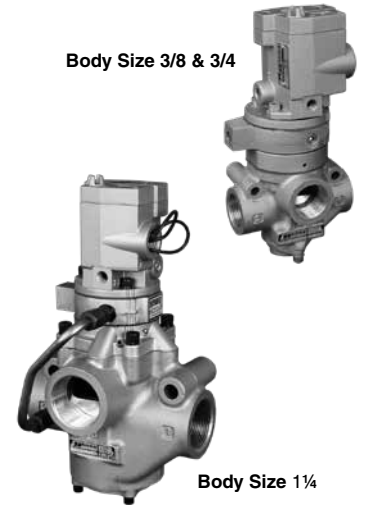
Construction Design	Spool	Valve Body: Cast Aluminum
Mounting Type	In-line	Spool: 316 Stainless Steel
Temperature	40° to 175°F (4° to 80°C)	Seals: Fluorocarbon
Flow Media	Filtered air	Safety Integrity Level (SIL) - Certified by TÜV Rheinland in accordance with IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.
Pilot Supply	External	
Operating Pressure	30 to 150 psig (2 to 10 bar)	

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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

3-Way 2-Position Valve									
Port Size 1, 2, 3	Body Size	Valve Model Number#		C _v		Weight lb (kg)			
		NPT Threads	G Threads	1-2	2-3				
1/4	1/2	3/8	2773B2037W	D2773B2037W	2.5	3.1			4.5 (2.0)
3/8	1/2	3/8	2773B3037W	D2773B3037W	3.6	5.3			4.5 (2.0)
1/2	1/2	3/8	2773B4047W	D2773B4047W	3.3	5.3			4.5 (2.0)
1/2	1	3/4	2773B4037W	D2773B4037W	10	13			5.0 (2.3)
3/4	1	3/4	2773B5037W	D2773B5037W	12	15			5.0 (2.3)
1	1	3/4	2773B6047W	D2773B6047W	12	16			5.0 (2.3)
1	1½	1¼	2773A6037W	D2773A6037W	23	34			8.8 (4.0)
1¼	1½	1¼	2773A7037W	D2773A7037W	30	32			8.8 (4.0)
1½	1½	1¼	2773A8047W	D2773A8047W	30	31	8.8 (4.0)		

Voltage: W=24 VDC; Z=110-120 VAC, 50/60 Hz, e.g., 2773B2037Z For other voltages, consult ROSS.



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ACCESSORIES & OPTIONS

Silencers

Port Size	Thread Type	Model Number		Avg. C _v
		NPT Threads	R/Rp Threads	
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

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



Indicator Light Kits

Kit Number		Indicator Light
24 volts DC	110-120 volts AC 50-60 Hz	
862K87-W	862K87-Z	

Manual Overrides

Flush Button

Locking Type	Kit Number	
Non-Locking	790K87	
Locking	792K87	

Extended Button

Locking Type	Kit Number	
Non-Locking	791K87	

Extended Button with Palm

Locking Type	Kit Number	
Non-Locking	984H87	

NOTE: The 3/2 EEZ-ON® valve is also available with a L-O-X® adapter so that both L-O-X® and EEZ-ON® functions are consolidated in a single valve.

STANDARD SPECIFICATIONS (for valves on this page):

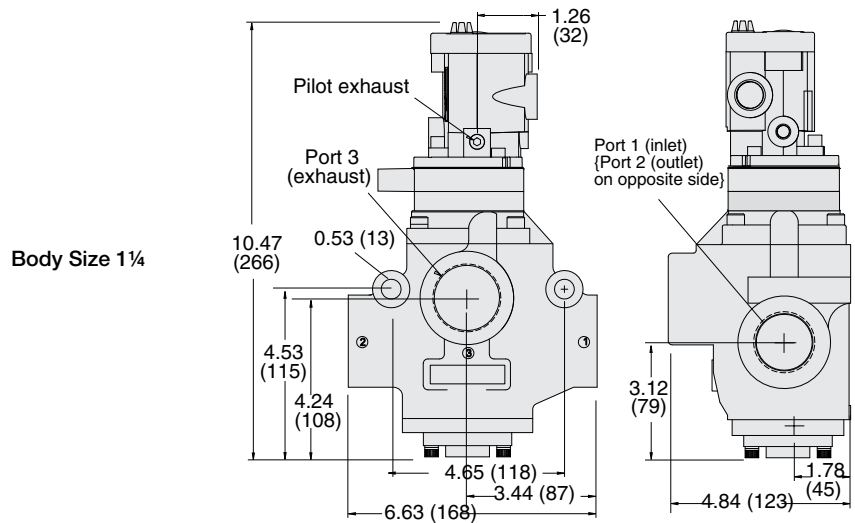
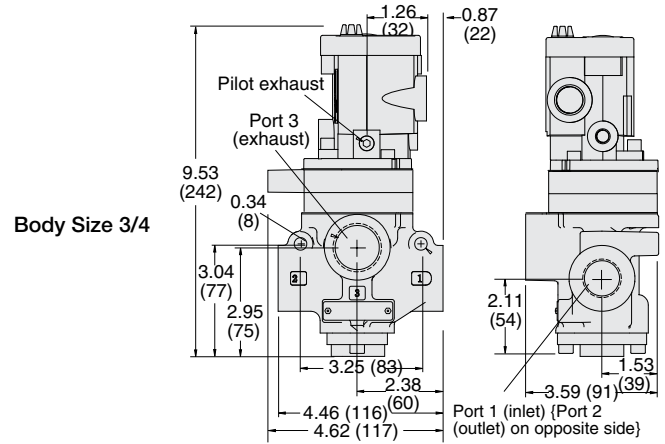
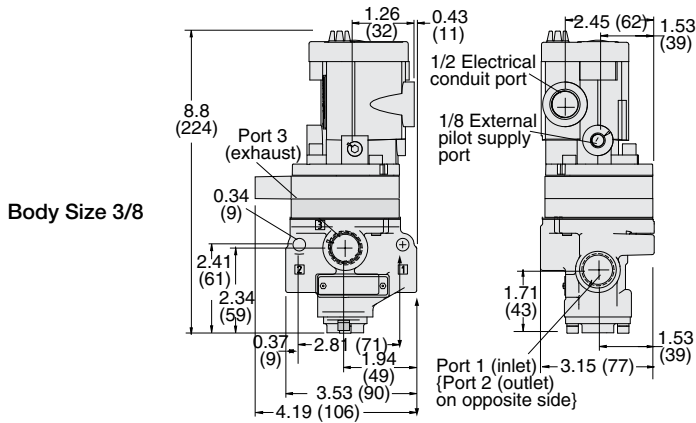
Construction Design	Poppet	Flow Media	Filtered air
Mounting Type	In-line	Pilot Supply	Internal or External
Solenoids	AC or DC power; Rated for continuous duty	Operating Pressure	15 to 150 psig (1 to 10 bar)
Voltage	24 volts DC; 110-120 volts AC, 50/60 Hz	Construction Material	Valve Body: Cast Aluminum Poppet: Acetal and Stainless Steel Seals: Buna-N
Power Consumption (each solenoid)	14 watts on DC; 87 VA inrush, 30 VA holding on 50 or 60 Hz	Safety Integrity Level (SIL)	Certified by TÜV Rheinland in accordance to IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.
Temperature	Ambient: 40° to 120°F (4° to 50°C) Media: 40° to 175°F (4° to 80°C)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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Valve Dimensions – inches (mm)

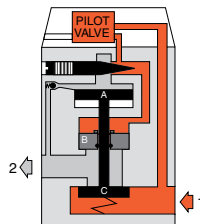
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VALVE OPERATION

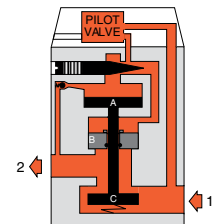
Pilot Not Energized

Pilot air is blocked by the pilot. Any downstream pressure forces piston B (which slides on the valve stem) upward. This opens the exhaust port and vents the downstream line.



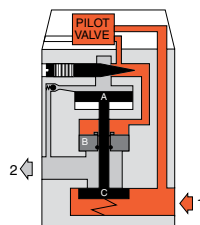
Full Pressure

When the pressure on piston A reaches approximately 50 percent of inlet pressure, it is forced downward and opens inlet poppet C. Full inlet pressure now flows freely to the outlet port.



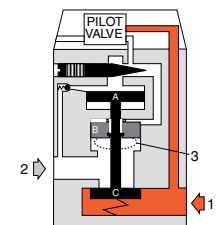
Pilot Energized

Pilot air forces piston B downward to close the exhaust port. Pilot air also flows past the adjusting needle, opens the ball check and begins slowly to pressurize the outlet line. At the same time, pressure is building up on piston A.



Pilot De-energized

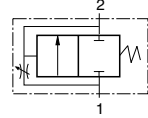
Air above pistons A and B is exhausted through the exhaust port of the pilot valve. Air above poppet C forces sliding piston B upward so that the main exhaust port is opened and the pressurized air is exhausted.





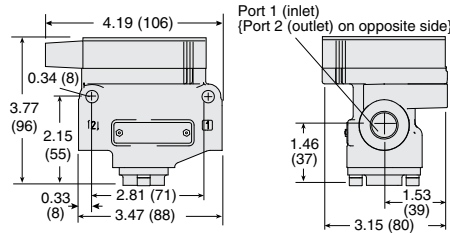
A
A1

2-Way 2-Position Valves					
Port Size	Body Size	Valve Model Number		C _v	Weight lb (kg)
		NPT Threads	G Threads		
1/4	3/8	2781A2007	D2781A2007	2.3	1.5 (0.7)
3/8	3/8	2781A3007	D2781A3007	3.8	1.5 (0.7)
1/2	3/8	2781A4017	D2781A4017	4	1.5 (0.7)
1/2	3/4	2781A4007	D2781A4007	13	2.3 (1.0)
3/4	3/4	2781A5007	D2781A5007	15	2.3 (1.0)
1	3/4	2781A6017	D2781A6017	16	2.3 (1.0)
1	1¼	2781A6007	D2781A6007	24	6.0 (2.7)
1¼	1¼	2781A7007	D2781A7007	29	6.0 (2.7)
1½	1¼	2781A8017	D2781A8017	29	6.0 (2.7)

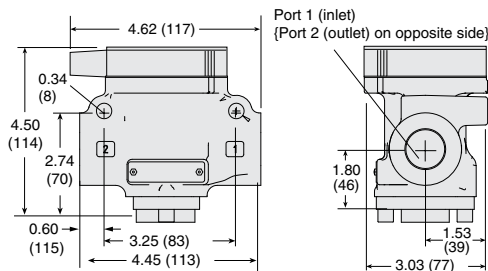


Valve Dimensions – inches (mm)

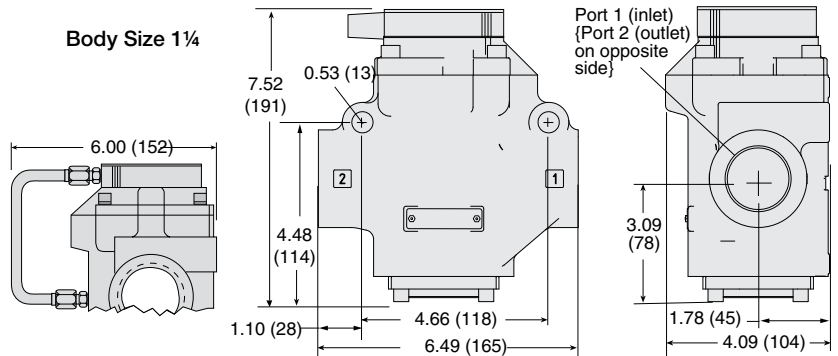
Body Size 3/8



Body Size 3/4



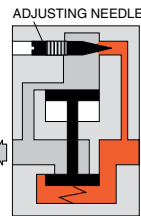
Body Size 1¼



VALVE OPERATION

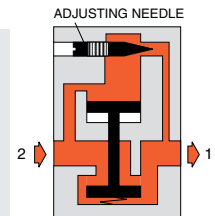
Air Pressure to Inlet

When air pressure is first applied to the inlet, air flow to the piston is restricted by the adjustable needle in the delay orifice. Downstream air pressure gradually builds up at a rate determined by the setting of the adjustable needle.



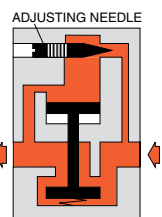
Inlet Pressure Removed

When inlet pressure is removed, the exhausting downstream air pressure keeps the inlet poppet open until the downstream pressure drops by approximately 90 percent. The remaining pressure is exhausted via the delay orifice.



Valve Opens to Full Flow

When downstream air pressure reaches approximately 40 to 60 percent of inlet pressure, the valve element shifts to the full open position and there is full air flow to the downstream components. This condition continues as long as inlet air pressure is present.



STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Poppet	Construction Material	Valve Body: Cast Aluminum Poppet: Acetal and Stainless Steel Seals: Buna-N
Mounting Type	In-line	Safety Integrity Level (SIL)	- Certified by TÜV Rheinland in accordance to IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.
Temperature	40° to 175°F (4° to 80°C)		
Flow Media	Filtered air		
Pilot Supply	External		
Operating Pressure	15 to 150 psig (1 to 10 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



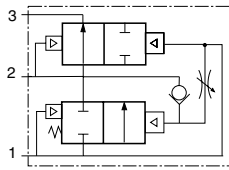
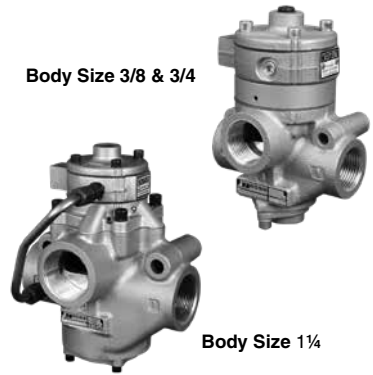
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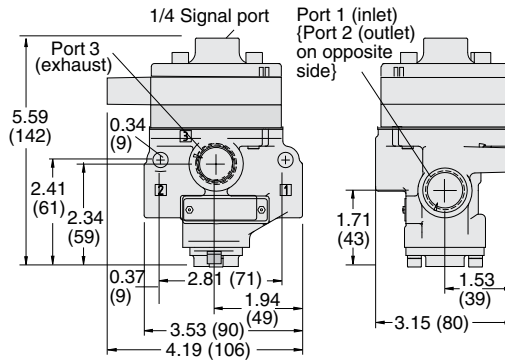
A1

3-Way 2-Position Valve								
Port Size		Body Size	Valve Model Number		C _v		Weight lb (kg)	
1, 2	3		NPT Threads	G Threads	1-2	2-3		
1/4	1/2	3/8	2783C2037	D2783C2037	2.5	3.1	4.5 (2.0)	
3/8	1/2	3/8	2783C3037	D2783C3037	3.6	5.3	4.5 (2.0)	
1/2	1/2	3/8	2783C4047	D2783C4047	3.3	5.3	4.5 (2.0)	
1/2	1	3/4	2783C4037	D2783C4037	10	13	5.0 (2.3)	
3/4	1	3/4	2783C5037	D2783C5037	12	15	5.0 (2.3)	
1	1	3/4	2783C6047	D2783C6047	12	16	5.0 (2.3)	
1	1½	1¼	2783B6037	D2783B6037	23	34	8.8 (4.0)	
1¼	1½	1¼	2783B7037	D2783B7037	30	32	8.8 (4.0)	
1½	1½	1¼	2783B8047	D2783B8047	30	31	8.8 (4.0)	



Valve Dimensions – inches (mm)

Body Size 3/8



ACCESSORIES

Silencers				
Port Size	Thread Type	Model Number		Avg. C _v
		NPT Threads	R/Rp Threads	
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

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



STANDARD SPECIFICATIONS (for valves on this page):

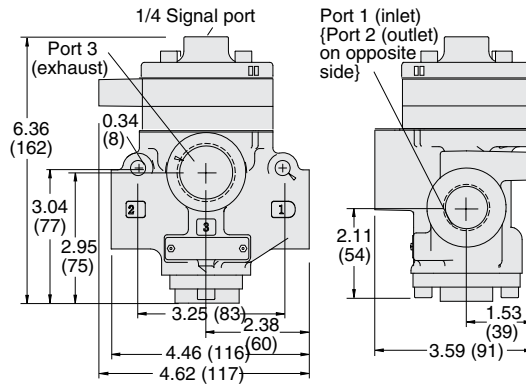
Construction Design	Poppet	Construction Material	Valve Body: Cast Aluminum Poppet: Acetal and Stainless Steel Seals: Buna-N
Mounting Type	In-line	Safety Integrity Level (SIL) - Certified by TÜV Rheinland in accordance to IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.	
Temperature	40° to 175°F (4° to 80°C)		
Flow Media	Filtered air		
Pilot Supply	External		
Operating Pressure	15 to 150 psig (1 to 10 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

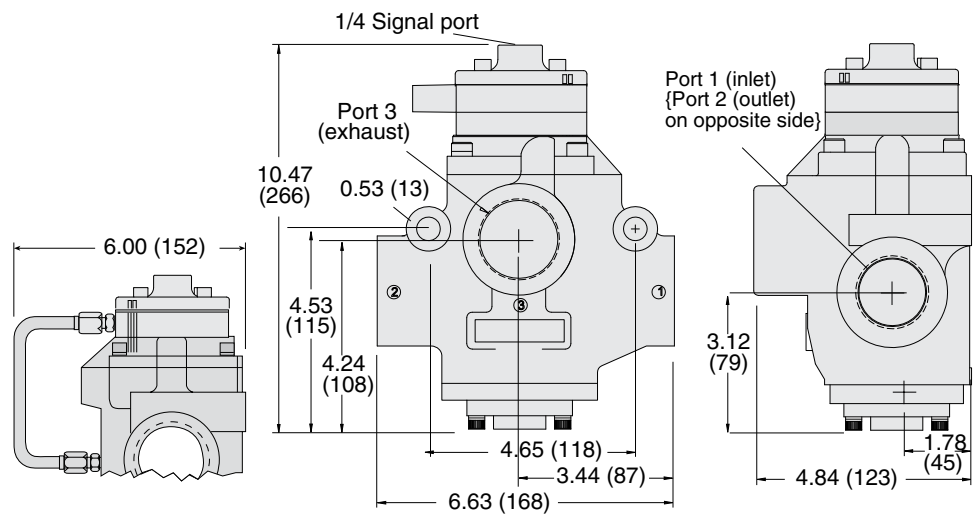
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Body Size 3/4



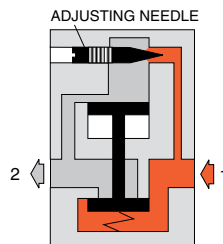
Body Size 1 1/4



VALVE OPERATION

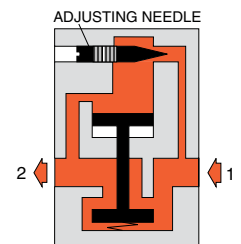
Air Pressure to Inlet

When air pressure is first applied to the inlet, air flow to the piston is restricted by the adjustable needle in the delay orifice. Downstream air pressure gradually builds up at a rate determined by the setting of the adjustable needle.



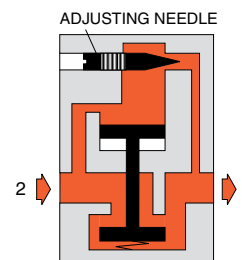
Valve Opens to Full Flow

When downstream air pressure reaches approximately 40 to 60 percent of inlet pressure, the valve element shifts to the full open position and there is full air flow to the downstream components. This condition continues as long as inlet air pressure is present.



Inlet Pressure Removed

When inlet pressure is removed, the exhausting downstream air pressure keeps the inlet poppet open until the downstream pressure drops by approximately 90 percent. The remaining pressure is exhausted via the delay orifice.

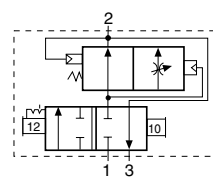


IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

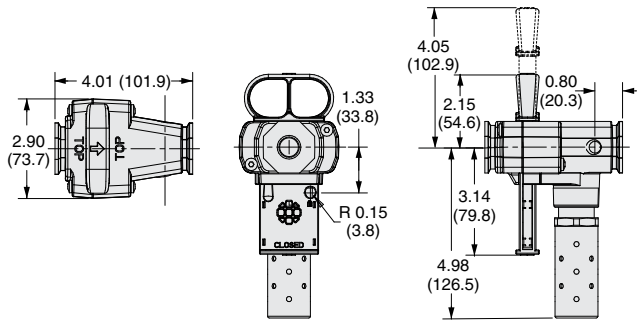
A

A1

3-Way 2-Position Valve, Modular						
Port Size		Valve Model Number		C _v		Weight lb (kg)
1, 2	3	NPT Threads	G Threads	1-2	2-3	
1/4	3/4	Y1523A2103	YD1523A2103	3.7	7.8	1.7 (0.8)
3/8	3/4	Y1523A3103	YD1523A3103	5.1	8.3	1.7 (0.8)
1/2	3/4	Y1523A4103	YD1523A4103	5.5	8.6	1.8 (0.8)
3/4	3/4	Y1523A5113	YD1523A5113	5.6	8.1	1.8 (0.8)



Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

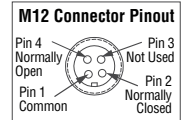
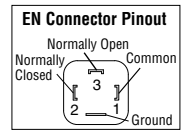
Silencers			
Port Size	Thread Type	Model Number	Avg. C _v
3/4	Male - NPT	5500A5003	11.5
	Male - R/Rp	D5500A5003	11.5

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



Pressure Switches		
Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator	Model Number**	988A30
** 1/8 NPT port threads.		



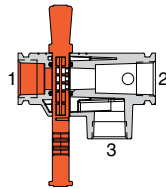
Multiple Lockout Device	Model Number	356A30
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VALVE OPERATION

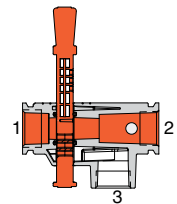
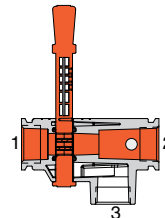
Valved Closed

With a short push of the blue handle inward, the flow of supply is blocked and downstream air is exhausted via the exhaust port at the bottom of the valve. It is required by OSHA that the L-O-X[®] valves with EEZ-ON[®] operation be padlocked in this position to prevent the handle from being pulled outward inadvertently when potential for human injury exists or servicing machinery.



EEZ-ON[®] Function

The blue handle will only shift part way due to a mechanical stop button allowing only partial flow from inlet to downstream causing the pressure to increase at a slower rate.



Valve Open

Pressing the mechanical stop button allows the blue handle to be shifted completely open allowing full flow from inlet to downstream.

STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Lock Hole	Diameter: 0.27 inch (7.0 mm) Length of Hole: 0.43 inch (10.9 mm)
Mounting Type	Modular; In-line	Construction Material	Valve Body: Cast Aluminum Spool: 316 Stainless Steel Seals: Fluorocarbon
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		
Fluid Media	Filtered air		
Operating Pressure	0 to 200 psig (0 to 14 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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

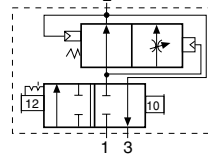


Manual Lockout & Exhaust L-O-X® Valves with Soft-Start EEZ-ON®

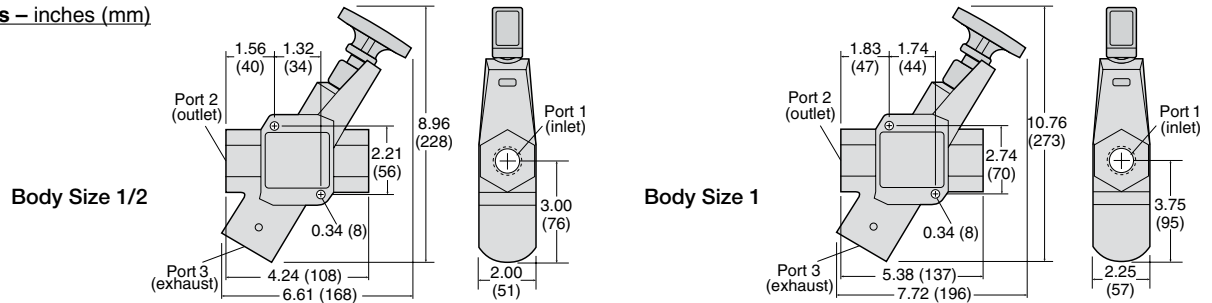
Energy Isolation 15 Series

A
A1

3-Way 2-Position Valve, Classic							
Port Size		Body Size	Valve Model Number		C _v		Weight lb (kg)
1, 2	3		NPT Threads	G Threads	1-2	2-3	
3/8	3/4	1/2	Y1523B3102	YD1523B3102	3.64	2.81	2.0 (0.9)
1/2	3/4	1/2	Y1523B4102	YD1523B4102	4.86	3.51	2.0 (0.9)
3/4	3/4	1/2	Y1523B5112	YD1523B5112	5.09	2.91	2.0 (0.9)
3/4	1 1/4	1	Y1523B5102	YD1523B5102	10.08	8.56	3.0 (1.4)
1	1 1/4	1	Y1523B6102	YD1523B6102	11.07	8.45	3.0 (1.4)
1 1/4	1 1/4	1	Y1523B7112	YD1523B7112	11.86	8.46	3.0 (1.4)



Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

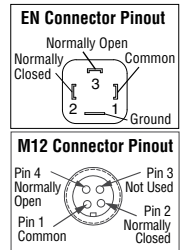
Silencers			
Port Size	Thread Type	Model Number	Avg. C _v
3/4	Male - NPT	5500A5003	11.5
	Male - R/Rp	D5500A5003	11.5
1 1/4	Male - NPT	5500A7013	16.4
	Male - R/Rp	D5500A7013	16.4

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



Pressure Switches		
Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	

*Pressure switch closes on falling pressure of 5 psig (0.34 bar).



Pop-Up Indicator	Model Number**	988A30
	** 1/8 NPT port threads.	



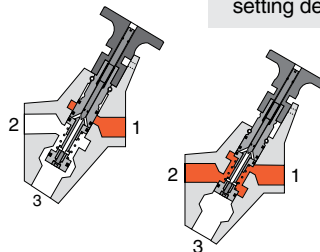
Multiple Lockout Device	Model Number	356A30
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VALVE OPERATION

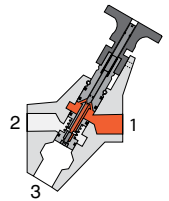
Valved Closed

With a short push of the blue handle inward, the flow of supply is blocked and downstream air is exhausted via the exhaust port at the bottom of the valve. It is required by OSHA that the L-O-X® valves with EEZ-ON® operation be padlocked in this position to prevent the handle from being pulled outward inadvertently when potential for human injury exists or servicing machinery.



EEZ-ON® Function

With the blue handle pulled out, the adjustable needle valve (accessed through top of handle) setting determines the rate of pressure buildup.



Valve Open

After the blue handle is pulled out and pressure downstream has gradually increased, the valve automatically changes to a fully open state, allowing full flow from inlet to downstream. Full flow is achieved at approximately 50% of inlet pressure.

STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Operating Pressure	0 to 150 psig (0 to 10 bar)
Mounting Type	In-line	Construction Material	Valve Body: Cast Aluminum Spool: 316 Stainless Steel Seals: Fluorocarbon
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		
Fluid Media	Filtered air		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



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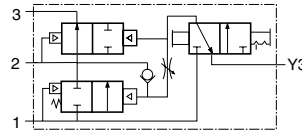
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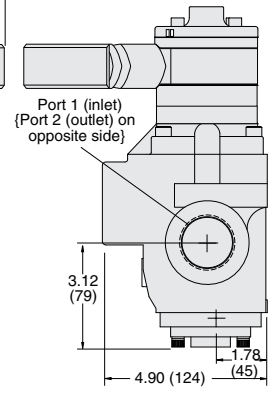
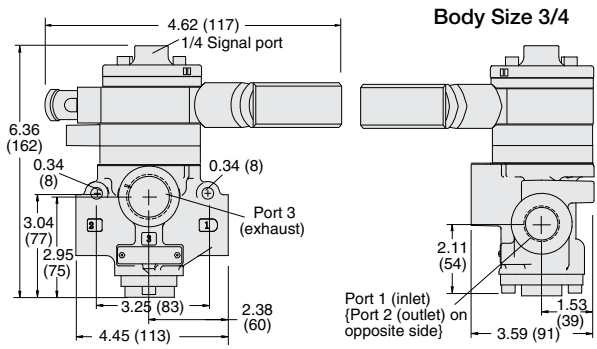
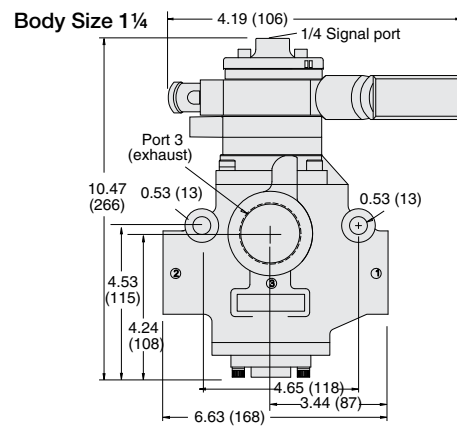
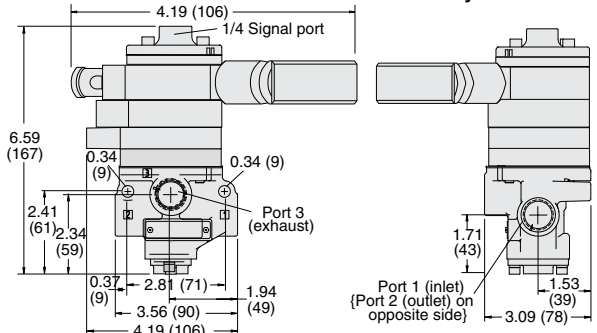
Manual Lockout L-O-X® Valves with Soft-Start EEZ-ON® – Pressure Controlled

Energy Isolation 27 Series

3-Way 2-Position Valve, Manual Lockout Controlled							
Port Size	Body		Valve Model Number		C _v		Weight lb (kg)
	1, 2	3	Size	NPT Threads	G Threads	1-2	
1/4	1/2	3/8	Y2783B2055	YD2783B2055	2.5	3.1	4.3 (2.0)
3/8	1/2	3/8	Y2783B3055	YD2783B3055	3.6	5.3	4.3 (2.0)
1/2	1/2	3/8	Y2783B4065	YD2783B4065	3.3	5.3	4.3 (2.0)
1/2	1	3/4	Y2783B4055	YD2783B4055	10	13	4.8 (2.2)
3/4	1	3/4	Y2783B5055	YD2783B5055	12	15	4.8 (2.2)
1	1	3/4	Y2783B6065	YD2783B6065	12	16	4.8 (2.2)
1	1½	1¼	Y2783A6055	YD2783A6055	23	34	7.9 (3.6)
1¼	1½	1¼	Y2783A7055	YD2783A7055	30	32	7.9 (3.6)
1½	1½	1¼	Y2783A8065	YD2783A8065	30	31	7.9 (3.6)



Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

Silencers				
Port Size	Thread Type	Model Number		Avg. C _v
		NPT Threads	R Threads	
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

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



Multiple Lockout Device	Model Number	356A30
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VALVE OPERATION

L-O-X® Valve (Handle) Open

Pilot air forces piston B downward to close the exhaust port. Pilot air flows past the adjusting needle, opens the ball check and begins slowly to pressurize the outlet line. At the same time, pressure is building up on piston A.

Full Pressure

With a short push of the red handle inward the flow of supply air is blocked and downstream air is exhausted via the exhaust port. Air pressure on the inlet and exhaust poppets produces a large closing force. The L-O-X® valve should be padlocked in this position to prevent the handle from being pulled outward inadvertently when potential for human injury exists or servicing machinery.

L-O-X® Valve (Handle) Closed

Pilot air forces piston B downward to close the exhaust port. Pilot air flows past the adjusting needle, opens the ball check and begins slowly to pressurize the outlet line. At the same time, pressure is building up on piston A.

STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Spool	Construction Material	Valve Body: Cast Aluminum
Mounting Type	In-line		Spool: 316 Stainless Steel
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)	Seals: Fluorocarbon	Safety Integrity Level (SIL) - Certified by TÜV Rheinland in accordance to IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.
Fluid Media	Filtered air		
Pilot Supply	External		
Operating Pressure	40 to 150 psig (2.8 to 10 bar)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



Manual Lockout L-O-X[®] Valves with Soft-Start EEZ-ON[®] – Solenoid Pilot Controlled

Energy Isolation
27 Series

3-Way 2-Position Valve, Manual Lockout Controlled								
Port Size		Body Size	Valve Model Number#		C _v		Weight lb (kg)	
1, 2	3		NPT Threads	G Threads	1-2	2-3		
1/4	1/2	3/8	Y2773B2075W	YD2773B2075W	2.5	3.1	5.3 (2.4)	
3/8	1/2	3/8	Y2773B3075W	YD2773B3075W	3.6	5.3	5.3 (2.4)	
1/2	1/2	3/8	Y2773B4085W	YD2773B4085W	3.3	5.3	5.3 (2.4)	
1/2	1	3/4	Y2773B4075W	YD2773B4075W	10	13	6.0 (2.7)	
3/4	1	3/4	Y2773B5075W	YD2773B5075W	12	15	6.0 (2.7)	
1	1	3/4	Y2773B6085W	YD2773B6085W	12	16	6.0 (2.7)	
1	1½	1¼	Y2773B6075W	YD2773B6075W	23	34	9.5 (4.3)	
1¼	1½	1¼	Y2773B7075W	YD2773B7075W	30	32	9.5 (4.3)	
1½	1½	1¼	Y2773B8085W	YD2773B8085W	30	31	9.5 (4.3)	

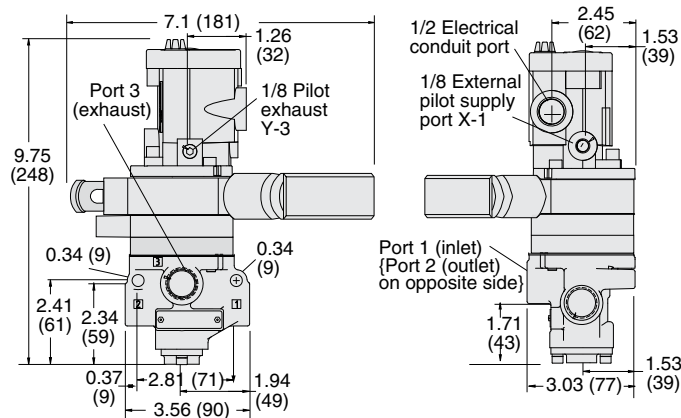
Cat. 1
PL b



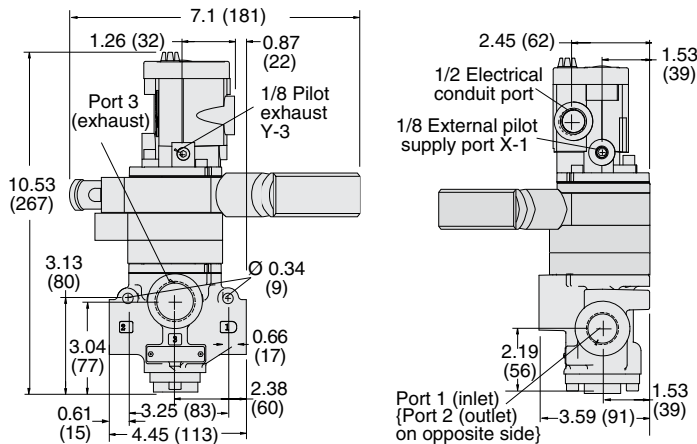
Voltage: W=24 VDC; Z=110-120 VAC, 50/60 Hz, e.g., Y2773B2075Z. For other voltages, consult ROSS.

Valve Dimensions – inches (mm)

Body Size 3/8



Body Size 3/4



STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Poppet	Flow Media	Filtered air
Mounting Type	In-line	Pilot Supply	Internal or External
Solenoids	AC or DC power; Rated for continuous duty	Operating Pressure	40 to 150 psig (2.8 to 10.3 bar)
Voltage	24 volts DC; 110-120 volts AC, 50/60 Hz	Construction Material	Valve Body: Cast Aluminum
Power Consumption (each solenoid)	14 watts on DC; 87 VA inrush, 30 VA holding on 50 or 60 Hz		Poppet: Acetal and Stainless Steel
Temperature	Ambient: 40° to 120°F (4° to 50°C)	Seals: Buna-N; Fluorocarbon	Safety Integrity Level (SIL) - Certified by TÜV Rheinland in accordance to IEC 61508 and IEC 61511 safety integrity level 2 (SIL 2) and EN ISO 13849-1, PL c (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥ 1, for details see certificate.
	Media: 40° to 175°F (4° to 80°C)		

NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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



Online Version
02/19/20



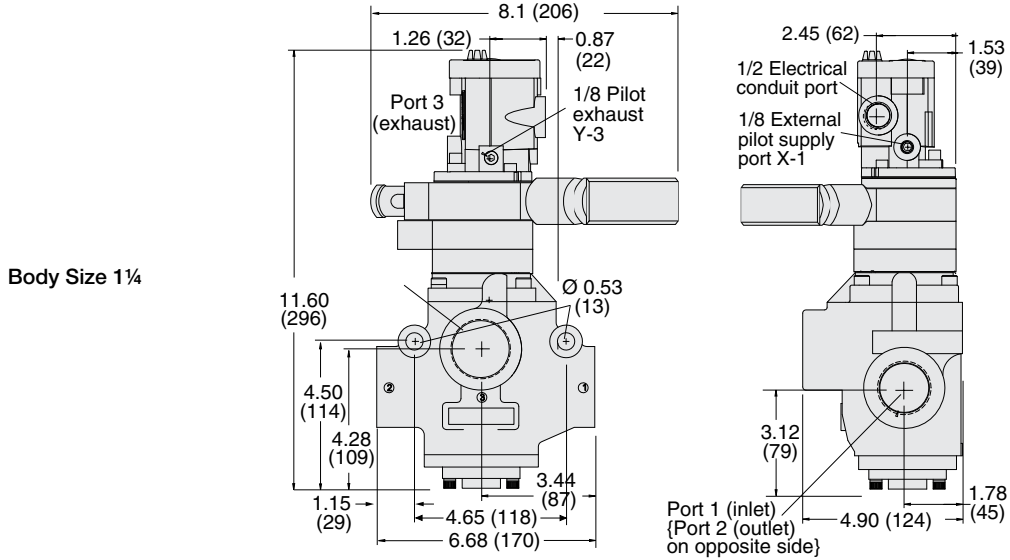
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A3.23

Manual Lockout L-O-X[®] Valves with Soft-Start EEZ-ON[®] – Solenoid Pilot Controlled

Energy Isolation 27 Series

Valve Dimensions – inches (mm)



ACCESSORIES & OPTIONS

Silencers

Port Size	Thread Type	Model Number		Avg. C _v
		NPT Threads	R/Rp Threads	
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

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



Indicator Light Kits

Indicator Light Kits	Kit Number		Indicator Light
	24 volts DC	110-120 volts AC 50-60 Hz	
	862K87-W	862K87-Z	

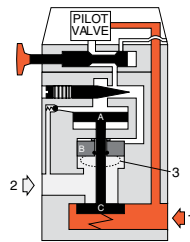
Multiple Lockout Device

Multiple Lockout Device	Model Number	356A30

VALVE OPERATION

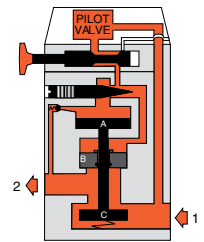
L-O-X[®] Handle Open and Pilot Not Energized

Pilot air is blocked by the pilot. Any downstream pressure forces piston B (which slides on the valve stem) upward. This opens the exhaust port and vents the downstream line.



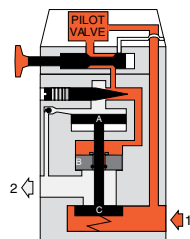
Full Pressure

When the pressure on piston A reaches approximately 50 percent of inlet pressure, it is forced downward and opens inlet poppet C. Full inlet pressure now flows freely to the outlet port.



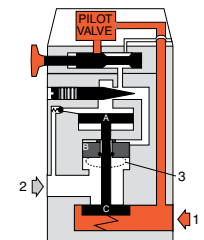
L-O-X[®] Handle Open and Pilot Energized

Pilot air forces piston B downward to close the exhaust port. Pilot air also flows past the adjusting needle, opens the ball check and begins slowly to pressurize the outlet line. At the same time, pressure is building up on piston A.



L-O-X[®] Handle Closed

At any time the L-O-X[®] handle can be pushed inward, thereby closing off the flow of pilot air. Pilot air above pistons A and B is then vented to atmosphere. Piston A moves upward and closes inlet poppet C. Sliding piston B also moves upward to open the exhaust port and vents the downstream line.



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

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.





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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.