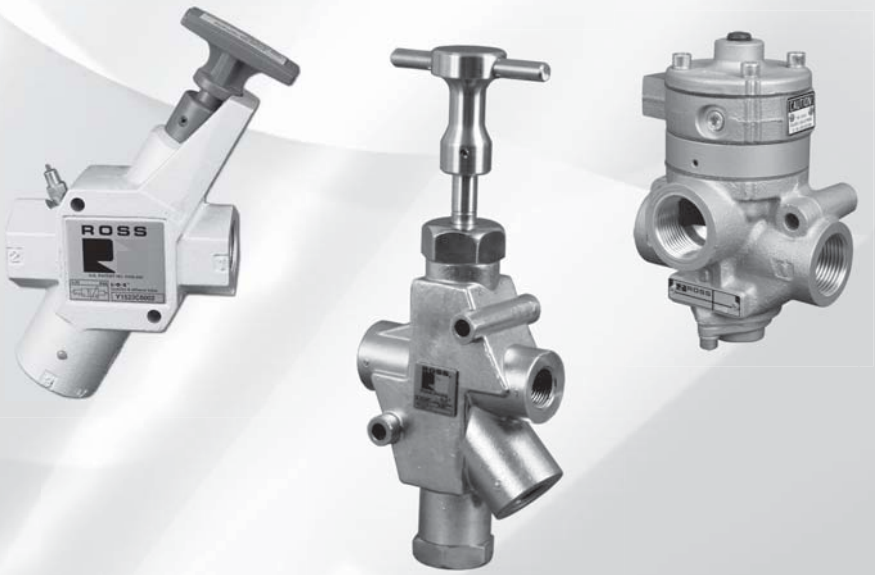
ROSS CONTROLS®

ENERGY ISOLATION

LOCKOUT & EXHAUST L-O-X®, SOFT-START EEZ-ON® VALVES

15, 19 & 27 SERIES



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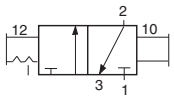
MANUAL LOCKOUT & EXHAUST L-O-X® VALVES – KEY FEATURES

- 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

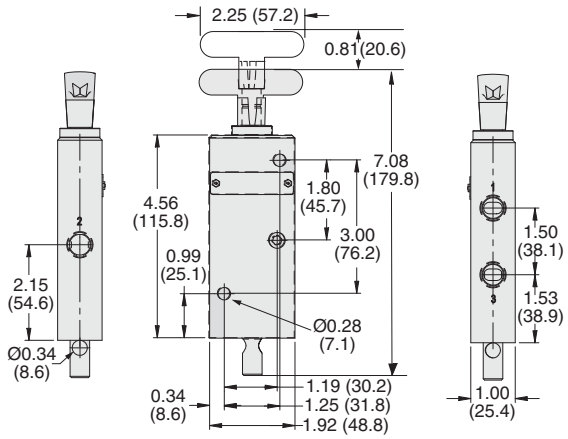
- Easily identified by blue handle
- Gradual re-application of pneumatic pressure prevents rapid equipment movement at startup
- Lockable only in the OFF position
- Has a full size exhaust port (equal to or larger than supply)
- Positive action (2 positions only)
- Simple push/pull of the large blue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

VALVE TYPE	VALVE SERIES	AVAILABLE PORT SIZES										FUNCTIONS					Page
		1/4	3/8	1/2	3/4	1	1¼	1½	2	2½	3	2/2	3/2	Max Flow (Cv)	Solenoid Control	Pressure Control	
Manual Lockout & Exhaust L-O-X® Valves																	
Slim-Line	15	■	■										■	2.67			F1.3
Modular	15	■	■	■	■								■	5.6			F1.4
Classic	15		■	■	■	■	■						■	19.25			F1.5
High-Capacity	L-O-X®							■	■				■	40.38			F1.6
Stainless Steel	15	■	■	■	■	■	■	■	■				■	39			F1.7
Stainless Steel with Integrated Filter/Regulator	RCO	■		■	■	■							■	9			F1.8 - F1.10
Piloted Valves with Manual Lockout L-O-X® Control																	
		■	■	■	■	■	■	■	■	■	■		■	70	■		F1.11 - F1.12
						■	■	■	■	■	■		■	70		■	F1.13
											■		■	140	■		F1.14
											■		■	140		■	F1.15
Soft-Start EEZ-ON® Valves																	
Right-Angle	19	■	■									■		1.8			F1.16
	27	■	■	■	■	■	■	■					■	30	■		F1.17 - F1.18
	27	■	■	■	■	■	■	■				■		29		■	F1.19
	27	■	■	■	■	■	■	■					■			■	F1.20
Manual Lockout L-O-X® Valves with Soft-Start EEZ-ON® Operation																	
Modular	15	■	■	■	■								■	5.6			F1.21
Classic	15		■	■	■	■	■						■	16.2			F1.22
Piloted Valves with Manual Lockout L-O-X® & Soft-Start EEZ-ON® Operation																	
Manual Pilot Controlled	27	■	■	■	■	■	■	■					■	30	■		F1.23 - F1.24
Solenoid Pilot Controlled	27	■	■	■	■	■	■	■					■	30		■	F1.25

3-Way 2-Position Valve						
Port Size		Valve Model Number*	C_v		Weight lb (kg)	
1, 2	3		1-2	2-3		
1/4	3/8	Y1523D2002	1.84	1.79	0.9 (0.4)	
3/8	3/8	Y1523D3012	2.67	2.64	0.9 (0.4)	

* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD1523D2002.

Valve Dimensions – inches (mm)



Accessories & Options

Silencers

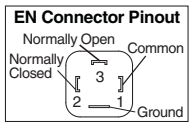
Port Size	Thread Type	Model Number	Avg. C_v
3/8	Male - NPT	5500A3013	2.7
	Male - BSPT	D5500A3013	2.7

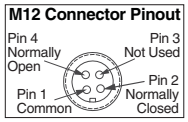
Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

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

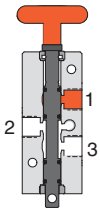
Model Number	356A30

F

VALVE OPERATION

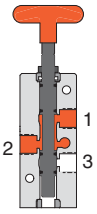
Valved Closed

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.



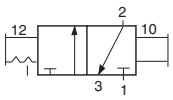
If a system requires gradual buildup of downstream pressure, see manual L-O-X® valves with EEZ-ON® operation.

STANDARD SPECIFICATIONS (for valves on this page):

Construction: Spool.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 0 to 145 psig (0 to 10 bar).
Lock Hole Diameter: 0.27 inch (7.0 mm).
Length of Hole: 0.43 inch (10.9 mm).

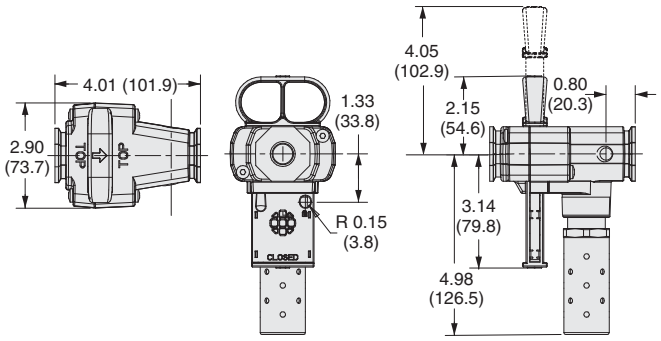
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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		1-2	2-3		
1/4	3/4	Y1523A2003	3.7	7.8	1.7 (0.8)	
3/8	3/4	Y1523A3003	5.1	8.3	1.7 (0.8)	
1/2	3/4	Y1523A4003	5.5	8.6	1.8 (0.8)	
3/4	3/4	Y1523A5013	5.6	8.1	1.8 (0.8)	

* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD1523A2003.

Valve Dimensions – inches (mm)



Accessories & Options

Silencers

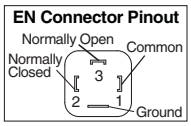
Port Size	Thread Type	Model Number	Avg. C_v
3/4	Male - NPT	5500A5003	11.5
	Male - BSPT	D5500A5003	11.5

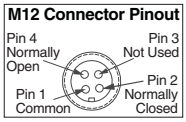
Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

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.	

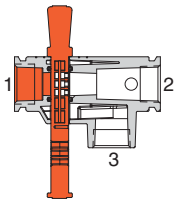
Multiple Lockout Device	Model Number	356A30

F

VALVE OPERATION

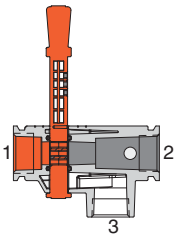
Valved Closed

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)**:**

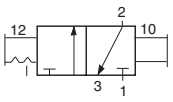
Construction: Spool.
Mounting Type: Modular, In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 0 to 200 psig (0 to 14 bar).
Lock Hole Diameter: 0.27 inch (7.0 mm).
Length of Hole: 0.43 inch (10.9 mm).

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.

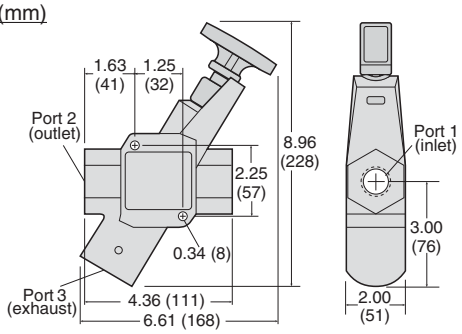
3-Way 2-Position Valve						
Port Size		Body Size	Valve Model Number*	C_v		Weight lb (kg)
1, 2	3			1-2	2-3	
3/8	3/4	1/2	Y1523C3002	4.74	3.57	1.5 (0.7)
1/2	3/4	1/2	Y1523C4002	7.10	4	1.5 (0.7)
3/4	3/4	1/2	Y1523C5012	8.26	4.10	1.5 (0.7
3/4	1¼	1	Y1523C5002	13.12	8.98	2.5 (1.1)
1	1¼	1	Y1523C6002	16.56	9.52	2.5 (1.1)
1¼	1¼	1	Y1523C7012	19.25	9.74	2.5 (1.1)

*NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD1523D3002.

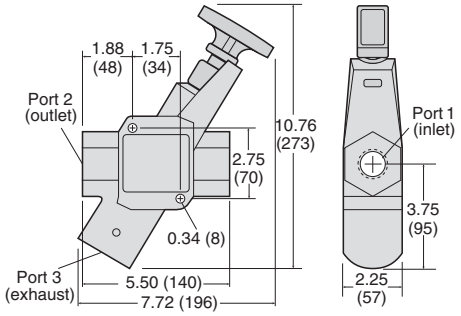


Valve Dimensions – inches (mm)

Body Size 1/2



Body Size 1



Accessories & Options

Silencers

Port Size	Thread Type	Model Number*	Avg. C_v
3/4	Male - NPT	5500A5003	11.5
	Male - BSPT	D5500A5003	11.5
1¼	Male - NPT	5500A7013	16.4
	Male - BSPT	D5500A7013	16.4

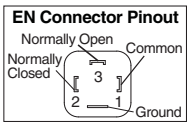
Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

Pressure Switches

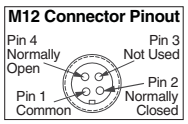
Connection Type	Model Number*	Port Threads
EN 175301-803 Form A	586A86	1/8 NPT
M12	1153A30	1/8 NPT

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

EN Connector Pinout



M12 Connector Pinout



Pop-Up Indicator

Model Number**	988A30

** 1/8 NPT port threads.

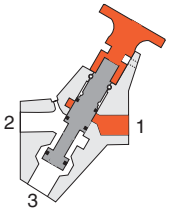
Multiple Lockout Device

Model Number	356A30

VALVE OPERATION

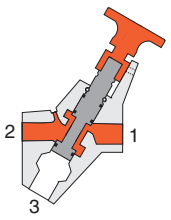
Valved Closed

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.



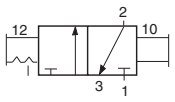
If a system requires gradual buildup of downstream pressure, see manual L-O-X® valves with EEZ-ON® operation.

STANDARD SPECIFICATIONS (for valves on this page)**:**

Construction: Spool.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 0 to 300 psig (0 to 20.7 bar).

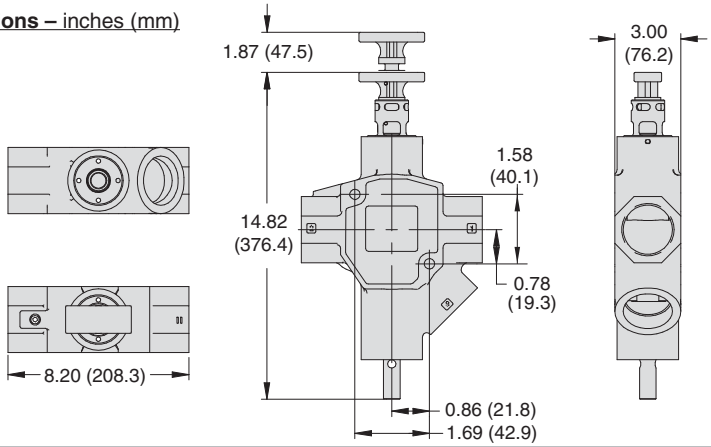
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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		1-2	2-3		
1½	2	Y1523C8002	35.53	50.98	8.3 (3.7)	
2	2	Y1523C9012	40.38	52.23	8.3 (3.7)	

* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD1523C8002.

Valve Dimensions – inches (mm)



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

Accessories & Options

Silencers

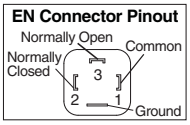
Port Size	Thread Type	Model Number	Avg. C_v
2	Female - NPT	5500B9001	34.2
	Female - BSPT	D5500B9001	34.2

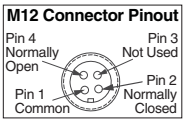
Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

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.

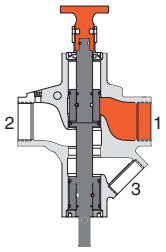
Multiple Lockout Device

Model Number	356A30

VALVE OPERATION

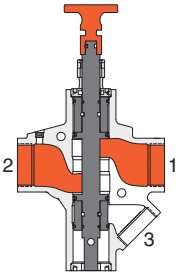
Valved Closed

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.

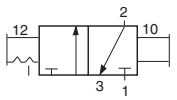
STANDARD SPECIFICATIONS (for valves on this page)**:**

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

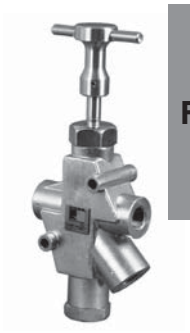
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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		1-2	2-3	
1/4	1/4	1523B2004	2.14	2.08	3.75 (1.70)
3/8	1/2	1523B3004	5.79	6.24	6.0 (2.72)
1/2	1/2	1523B4004	5.79	6.24	6.0 (2.72)
3/4	1	1523B5004	14.30	17	13.0 (5.89
1	1	1523B6004	14.30	17	13.0 (5.89)
1½	2	1523B8004	39	45	35.0 (15.87)
2	2	1523B9004	39	45	35.0 (15.87)

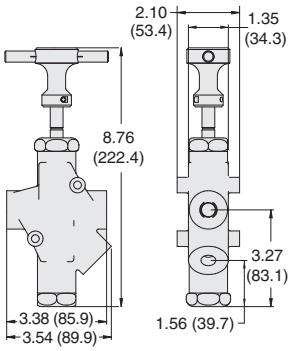


* NPT port threads. For BSPP threads, add a "D" prefix to the model number, e.g., D1523B2004.

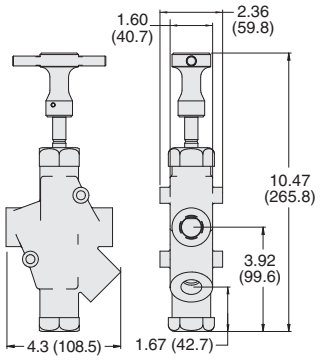


Valve Dimensions – inches (mm)

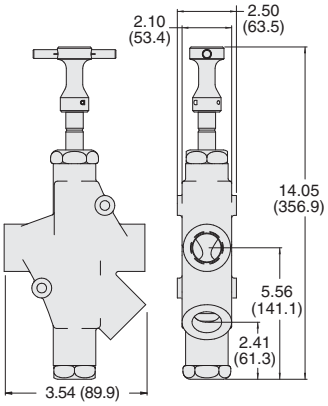
Port Size 1/4



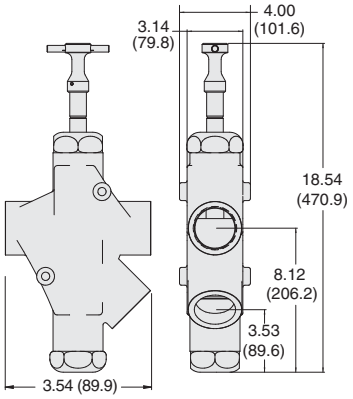
Port Sizes 3/8 & 1/2



Port Sizes 3/4 & 1



Port Sizes 1½ & 2

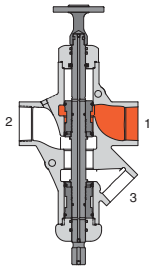


F

VALVE OPERATION

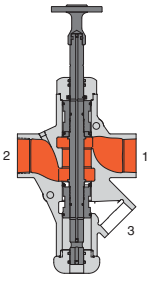
Valve Closed

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)**:**

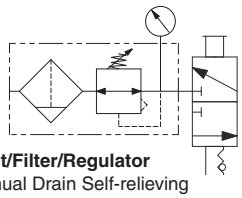
Construction: Spool, 316 Stainless Steel.
Mounting Type: In-Line.
Ambient/Media Temperature: 30° to 175°F (-1° to 80°C).
Note: For lower temperature ratings, consult ROSS.
Flow Media: Filtered air.
Inlet Pressure: 0 to 300 psig (0 to 20.7 bar).
Lock Hole Diameter: *Port sizes 1/4 thru 2:* 0.34 inch (8.64 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).

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.

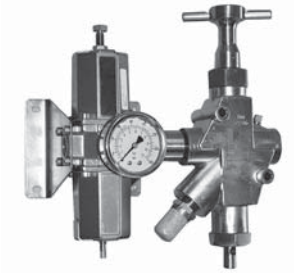
F1

Port Size		Model Number*	C_v	
1, 2	3		1-2	2-3
1/4	1/4	RC010-13	2.14	2.08
1/2	1/2	RC011-13	4.4	6.24
3/4	1	RC012-13	5	17
1	1	RC013-13	8	17



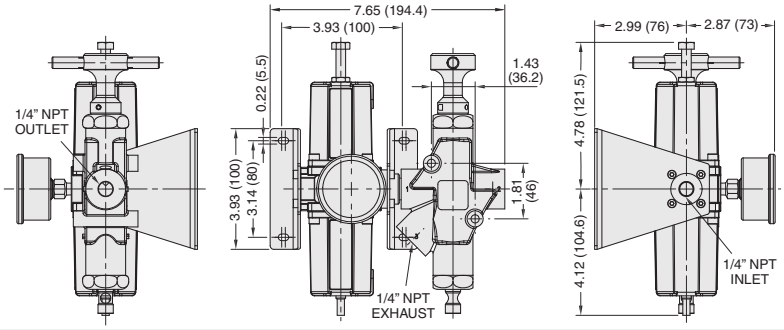
Lockout/Filter/Regulator
Lockout Manual Drain Self-relieving

* NPT port threads. For BSPP threads, consult ROSS.

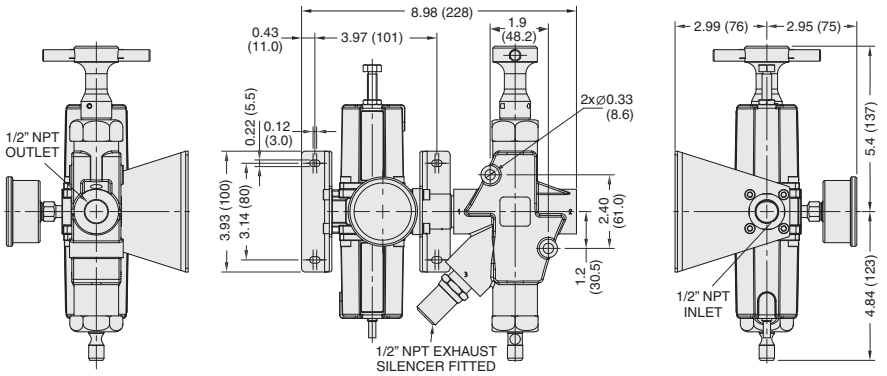


Dimensions – inches (mm)

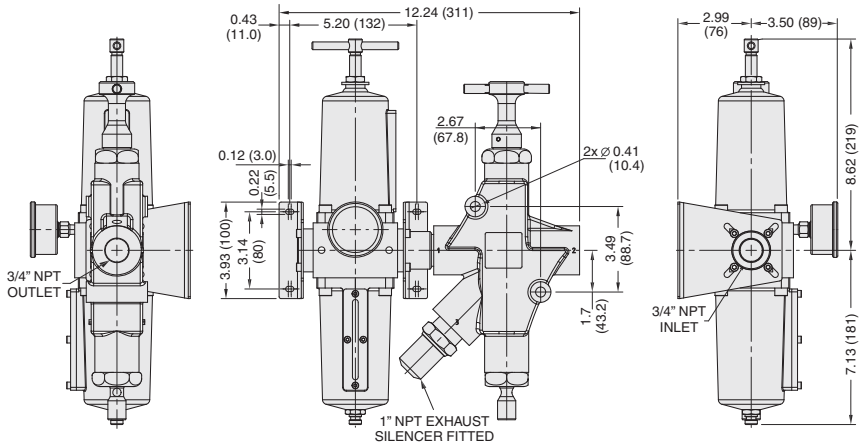
Port Size 1/4



Port Size 1/2



Port Size 3/4



F

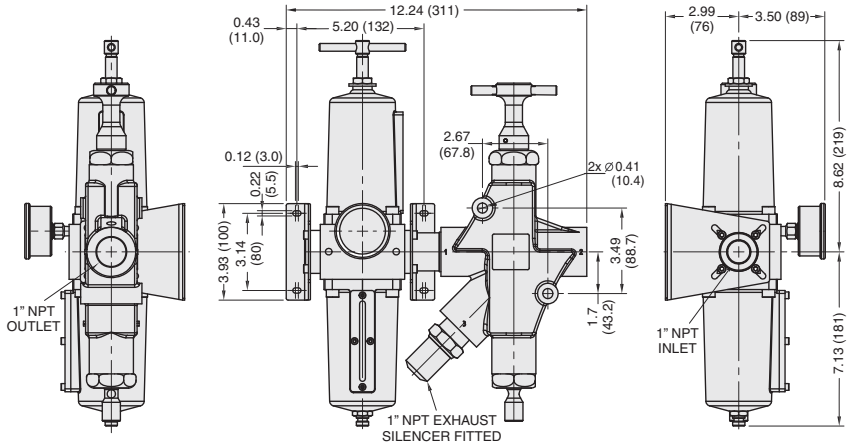
STANDARD SPECIFICATIONS (for valves on this page):

Construction: Spool, 316 Stainless Steel.
Mounting Type: In-Line.
Ambient/Media Temperature: 30° to 175°F (-1° to 80°C).
Note: For lower temperature ratings, consult ROSS.
Flow Media: Filtered air.
Inlet Pressure: 0 to 300 psig (0 to 20.7 bar).
Secondary Pressure: 7 to 174 psig (0.5 to 12 bar).
Seals: Fluorocarbon (Viton).
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).

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.

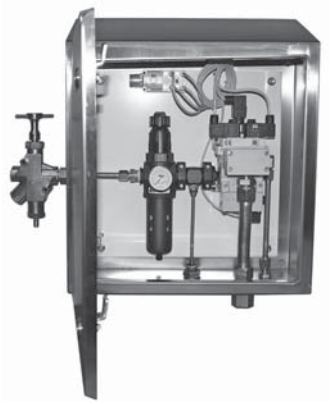
Port Size 1



Stainless Steel Cabinet for Wash-Down Applications

- 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

CONTROL CATEGORY 2
CONTROL CATEGORY 3
CONTROL CATEGORY 4



APPLICATIONS:

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

Will build to your specifications!

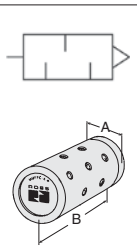
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

Stainless Steel Silencers

- Port sizes 1/4 thru 1 NPT have all stainless steel construction
- Port sizes 2 NPT and all BSPT have standard construction consisting of nickel plated cold rolled steel
- Supplied with a standard pipe thread fitting for attaching directly to the exhaust ports of air-operated equipment

Port Size	Thread Type	Model Number		Avg. C_v	Dimensions inches (mm)		Weight lb (kg)
		NPT Threads	BSPT 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 300 psig (0 to 20.7 bar) maximum.
Flow Media: Filtered air.

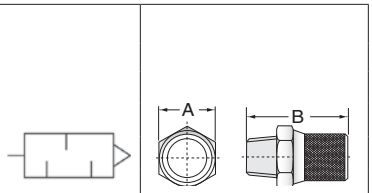


Silencers for Stainless Steel L-O-X® Air Entry Combinations

- 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.

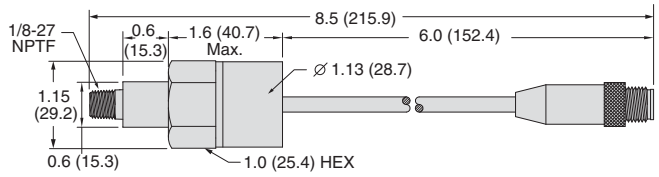


Stainless Steel Pressure Switch

- 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.

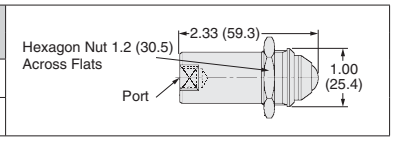


Stainless Steel Visual Indicator

- 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)

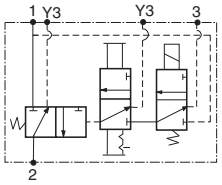
NPT port threads.



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

3-Way 2-Position Valve

Port Size 1, 2	Port Size 3	Body Size	Valve Model Number*	C_v 1-2	C_v 2-3	Weight lb (kg)
1/4	1/2	3/8	Y2773A2072**	2.5	3.1	3.5 (1.6)
3/8	1/2	3/8	Y2773A3072**	3.6	5.3	3.5 (1.6)
1/2	1/2	3/8	Y2773A4082**	3.3	5.3	3.5 (1.6)
1/2	1	3/4	Y2773A4072**	6.3	9.2	4.3 (1.9)
3/4	1	3/4	Y2773A5072**	7.7	11	4.3 (1.9)
1	1	3/4	Y2773A6082**	8	12	4.3 (1.9)
1	1½	1¼	Y2773A6072**	23	34	8.0 (3.6)
1¼	1½	1¼	Y2773A7072**	30	32	8.0 (3.6)
1½	1½	1¼	Y2773A8082**	30	31	8.0 (3.6)
1½	2½	2	Y2773A8072**	68	70	17.5 (7.9)
2	2½	2	Y2773A9072**	70	70	17.5 (7.9)
2½	2½	2	Y2773A9082**	70	71	17.5 (7.9)



* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD2773A2072W.
** Insert voltage code: "W" = 24 volts DC; "Z" = 110-120 volts AC, 50/60 Hz; e.g., Y2773A2072W.
For other voltages, consult ROSS.

Accessories & Options

Silencers

Port Size	Thread Type	Model Number NPT Threads	Model Number BSPT Threads	Avg. C_v
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

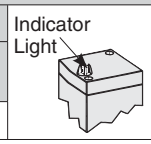
Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum.
Flow Media: Filtered air.


Port size 1/2 thru 2


Port size 2½

Indicator Light Kits

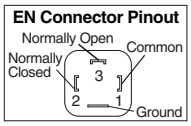
Kit Number 24 volts DC	Kit Number 110-120 volts AC 50-60 Hz
862K87-W	862K87-Z

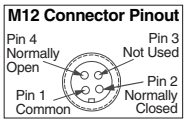


Pressure Switches

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

STANDARD SPECIFICATIONS (for valves on this page):

Construction: Poppet.
Mounting Type: In-Line.
Solenoids: AC or DC power. Rated for continuous duty.
Standard Voltages: 24 volts DC; 110-120 volts AC, 50/60 Hz.
Power Consumption: 87 VA inrush, 30 VA holding on 50 or 60 Hz; 14 watts on DC.
Ambient Temperature: 40° to 120°F (4° to 50°C).
Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.

Inlet Pressure: *Port sizes 1/4 to 1½:* 15 to 150 psig (1 to 10 bar).
Port sizes 1½ to 2½: 30 to 150 psig (2 to 10 bar).
Pilot Pressure: Must be equal to or greater than inlet pressure.

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 or PL d (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥1.

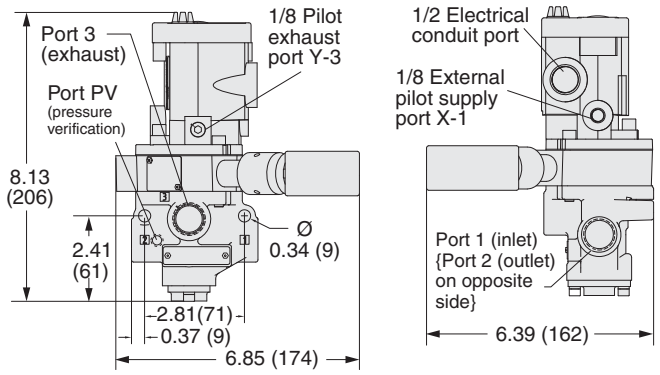
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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

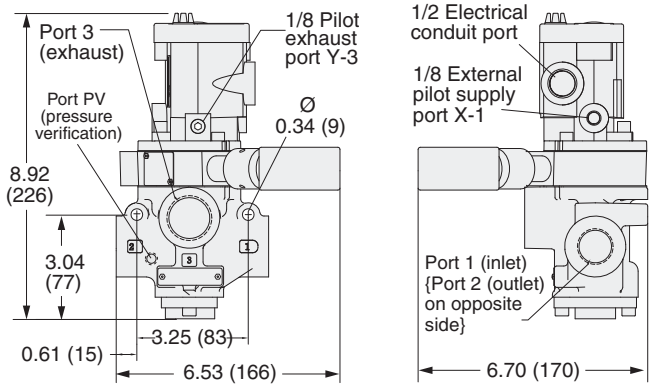
F1

Valve Dimensions – inches (mm)

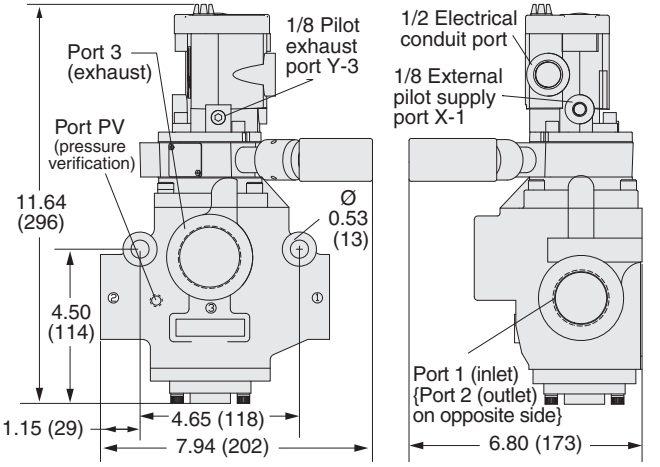
Body Size 3/8



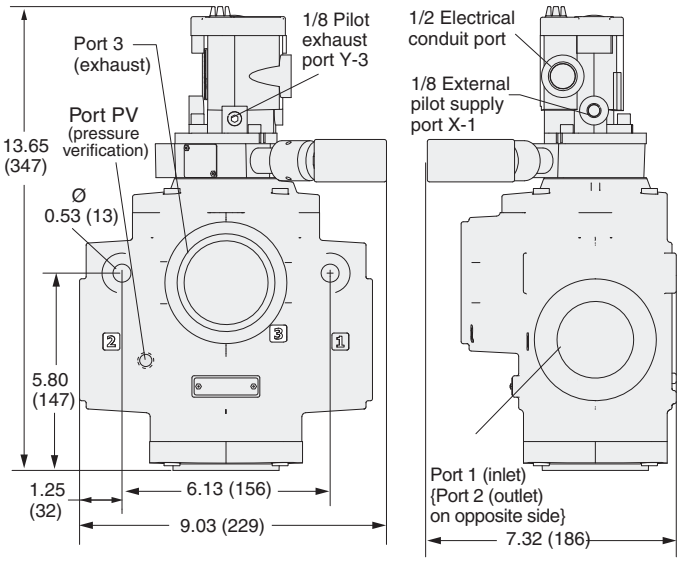
Body Size 3/4



Body Size 1¼



Body Size 2

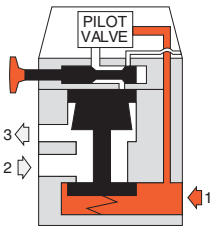


F

VALVE OPERATION

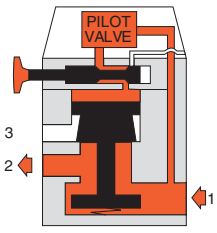
Pilot De-energized

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.



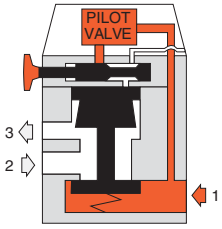
Pilot Energized

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.



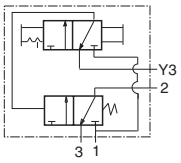
L-O-X® Valve Closed

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.

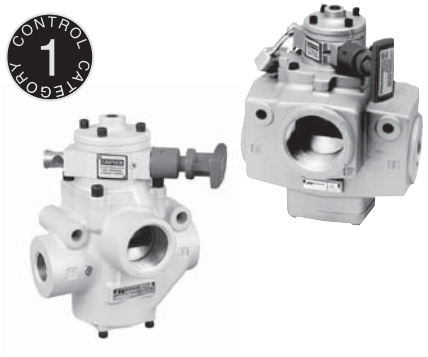


3-Way 2-Position Valve, Internal Pressure Controlled

Port Size 1, 2	Port Size 3	Body Size	Valve Model Number*	C_v 1-2	C_v 2-3	Weight lb (kg)
1	1½	1¼	Y2783A6006	23	34	7.0 (3.2)
1¼	1½	1¼	Y2783A7006	30	32	7.0 (3.2)
1½	1½	1¼	Y2783A8016	30	31	7.0 (3.2)
1½	2½	2	Y2783A8006	68	70	15.3 (6.9
2	2½	2	Y2783A9006	70	70	15.3 (6.9
2½	2½	2	Y2783A9016	70	71	15.3 (6.9)

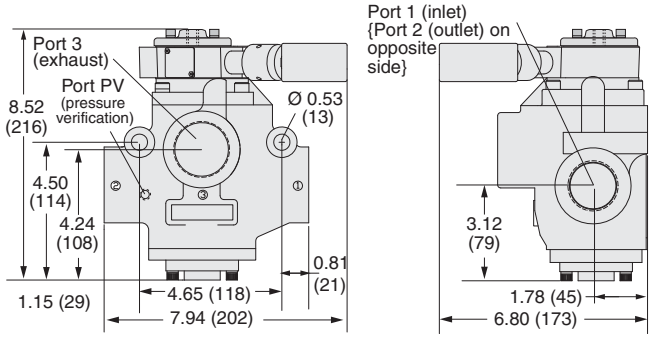


* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD2783A6006.

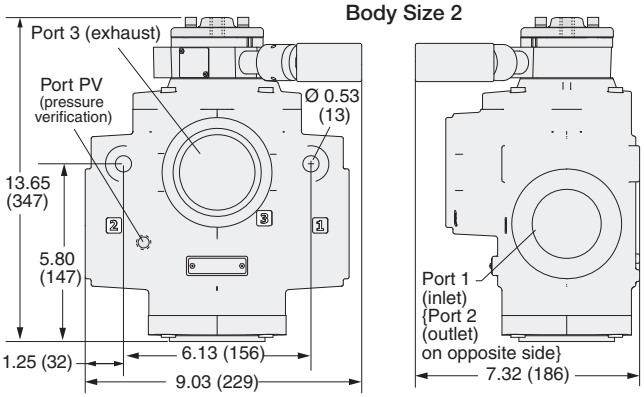


Valve Dimensions – inches (mm)

Body Size 1¼



Body Size 2



Accessories & Options

Silencers

Port Size	Thread Type	Model Number NPT Threads	Model Number BSPT Threads	Avg. C_v
1½	Female	5500A8001	D5500A8001	29.9
2½	Female	5500A9002	D5500A9002	103.7

Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum.
Flow Media: Filtered air.

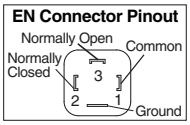
Port size 1½ thru 2

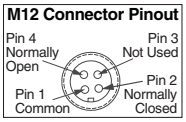
Port size 2½

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

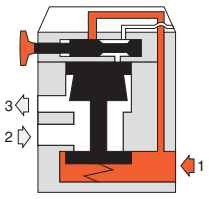
Model Number**	988A30
** 1/8 NPT port threads.	

Multiple Lockout Device

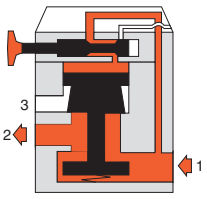
Model Number	356A30

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: Poppet.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: *Basic Size 1¼:* 15 to 150 psig (1 to 10 bar).
Basic Size 2: 30 to 150 psig (2 to 10 bar).

Pilot Pressure: Must be equal to or greater than inlet pressure.

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 or PL d (with application specific diagnosis) in singular application with HFT = 0 and SIL 3 and PL e in redundant application with HFT ≥1.

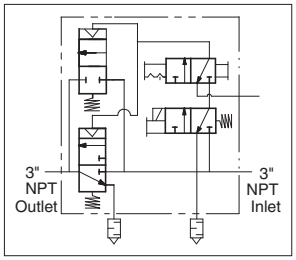
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

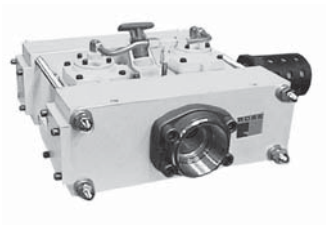
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

3 Inch L-O-X® Valve for Lockout

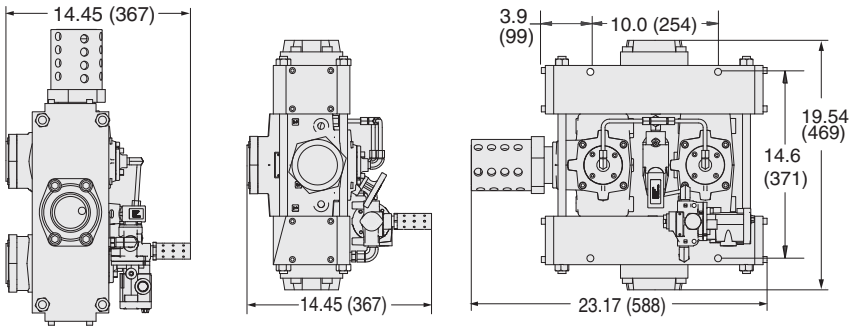
3-Way 2-Position Valve					
Port Size		Valve Model Number	C_v		Weight lb (kg)
1, 2	3		1-2	2-3	
3	2½	Y3900A0896**	140	71	115 (53.0)

** Insert voltage code: "W" = 24 volts DC; "Z" = 110-120 volts AC, 50/60 Hz; e.g., Y3900A0896W. For other voltages, consult ROSS.





Valve Dimensions – inches (mm)



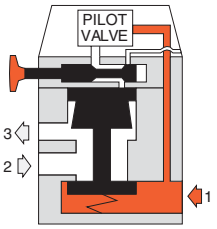
OPTIONS

Multiple Lockout Device	Model Number	356A30

VALVE OPERATION

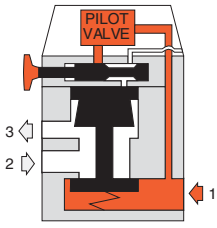
Pilot De-energized

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.



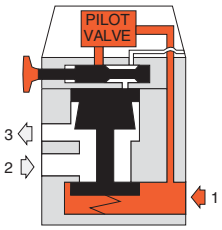
Pilot Energized

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: Spool.
Mounting Type: In-Line.
Solenoids: AC or DC power. Rated for continuous duty.
Power Consumption:
87 VA inrush, 30 VA holding on 50 or 60 Hz; 14 watts on DC.

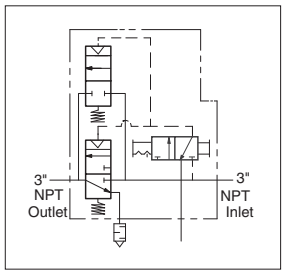
Ambient Temperature: 40 to 120°F (4 to 50°C).
Media Temperature: 40 to 175°F (4 to 80°C).
Flow Media: Filtered air; 5 micron filter recommended.
Inlet Pressure: 30 to 150 psig (2 to 10 bar).
Pilot Pressure: Must be equal to or greater than inlet pressure.
Port Threads: NPT.

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

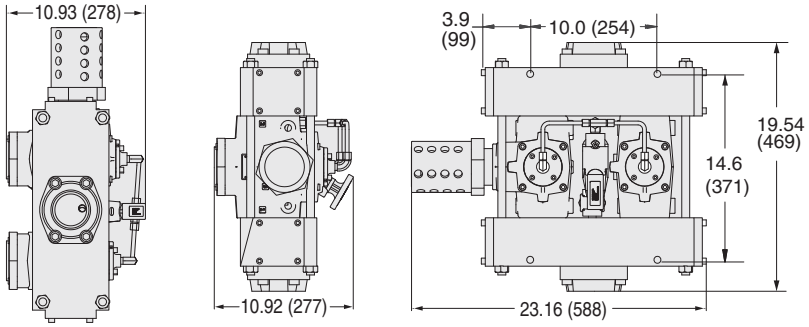
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

3 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		1-2	2-3	
3	2½	Y3900A0829	140	71	110 (49.9)



Valve Dimensions – inches (mm)



OPTIONS

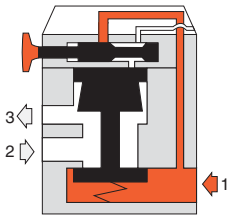
Multiple Lockout Device	Model Number	356A30

F

VALVE OPERATION

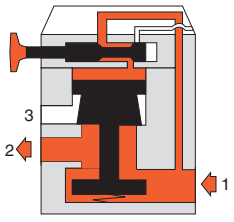
Valve Closed

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):

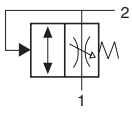
Construction: Spool.
Mounting Type: In-Line.
Ambient/Media Temperature: 40 to 175° F (4 to 80°C).
Flow Media: Filtered air; 5 micron filter recommended.
Inlet Pressure: 30 to 150 psig (2 to 10 bar).
Pilot Pressure: Must be equal to or greater than inlet pressure.
Port Threads: NPT.

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

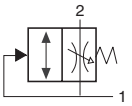
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Right-Angle Soft-Start EEZ-ON® Valves

Models with Threaded Banjo				
2-Way Normally Closed EEZ-ON®				
Port Size		Valve Model Number	Avg. C_v	Weight lb (kg)
Port 1 (female threads)	Port 2 (male threads)			
1/4	1/4	1969B2010	1.2	0.38 (0.15)
3/8	3/8	1969B3010	1.7	0.38 (0.15)
G1/4	G1/4	D1969B2010	1.2	0.38 (0.15)
G3/8	G3/8	D1969B3010	1.7	0.38 (0.15)

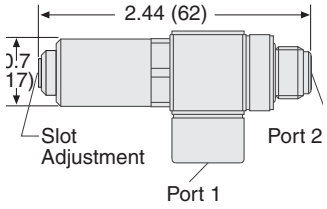


Primary Pressure at Port 1



Primary Pressure at Port 2

Valve Dimensions – inches (mm)



- Gradual re-application of pneumatic pressure prevents rapid equipment movement at startup
- Right-Angle style mounts directly in cylinder ports
- Available with threaded ports
- Point of use Soft-Start

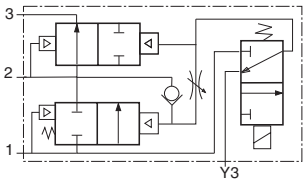
STANDARD SPECIFICATIONS (for valves on this page)**:**

Construction: Spool.
Mounting Type: Port Mounted.
Ambient/Media Temperature: 15° to 160°F (-10° to 70°C).
Flow Media: Filtered air.
Operating Pressure: 45 to 150 psig (3 to 10.3 bar).

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	Port Size 3	Body Size	Valve Model Number*	C_v 1-2	C_v 2-3	Weight lb (kg)
1/4	1/2	3/8	2773B2037**	2.5	3.1	4.5 (2.0)
3/8	1/2	3/8	2773B3037**	3.6	5.3	4.5 (2.0)
1/2	1/2	3/8	2773B4047**	3.3	5.3	4.5 (2.0)
1/2	1	3/4	2773B4037**	10	13	5.0 (2.3)
3/4	1	3/4	2773B5037**	12	15	5.0 (2.3)
1	1	3/4	2773B6047**	12	16	5.0 (2.3)
1	1½	1¼	2773A6037**	23	34	8.8 (4.0)
1¼	1½	1¼	2773A7037**	30	32	8.8 (4.0)
1½	1½	1¼	2773A8047**	30	31	8.8 (4.0)



* NPT port threads. For BSPP threads, add a "D" prefix to the model number, e.g., D2773B2037.
**Insert voltage code: "W" = 24 volts DC; "Z" = 110-120 volts AC, 50/60 Hz; e.g., 2773B2037W.
For other voltages, consult ROSS.

CONTROL CATEGORY 1

1/4 thru 1 Exhaust Port Size

1 thru 1½ Exhaust Port Size

Accessories & Options

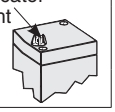
Silencers

Port Size	Thread Type	Model Number* NPT Threads	Model Number* BSPT Threads	Avg. C_v
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

Indicator Light Kits

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



Manual Overrides

F

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

Extended Button Locking Type	Extended Button Kit Number
Non-Locking	791K87

Extended Button with Palm Locking Type	Extended Button with Palm 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):

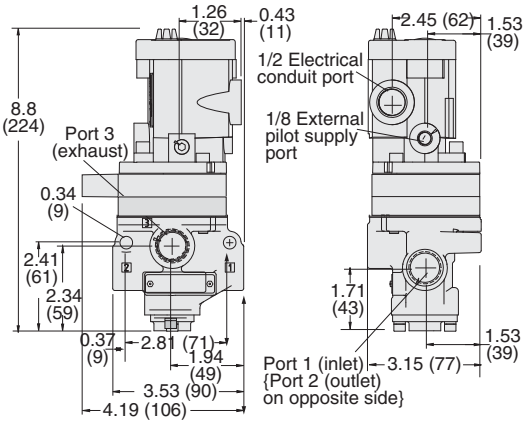
Construction: Poppet.
Mounting Type: In-Line.
Solenoid Pilot: AC or DC power. Rated for continuous duty.
Standard Voltages: 24 volts DC; 110-120 volts AC, 50/60 Hz.
Power Consumption: 87 VA inrush, 30 VA holding on 50 or 60 Hz; 14 watts on DC.
Ambient Temperature: 40° to 120°F (4° to 50°C).
Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 15 to 150 psig (1 to 10.3 bar).

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

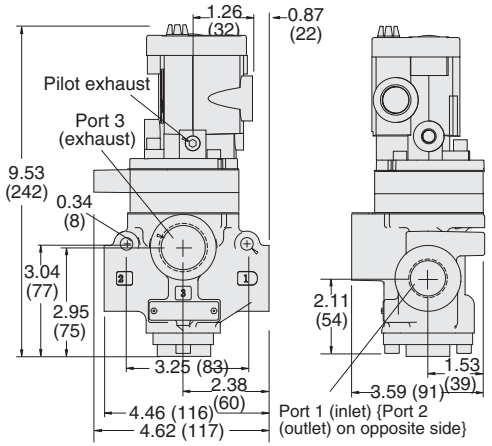
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Valve Dimensions – inches (mm)

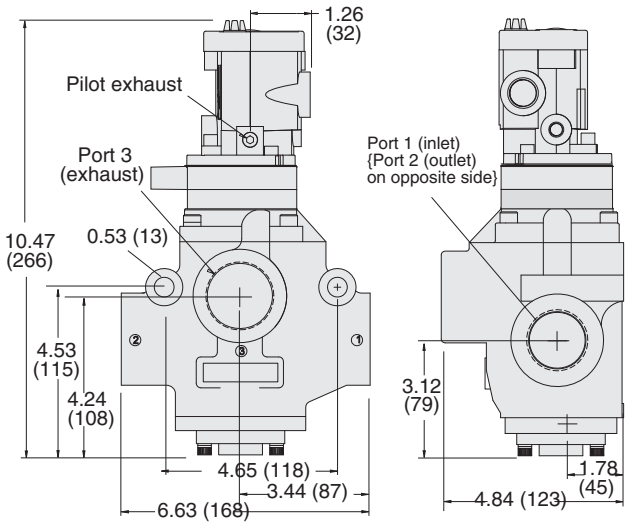
Body Size 3/8



Body Size 3/4



Body Size 1¼

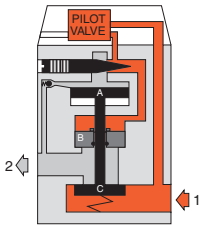


F

VALVE OPERATION

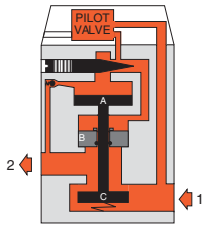
Pilot Not Energized

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.



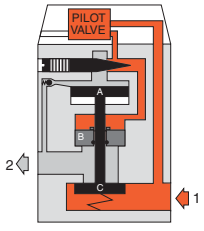
Full Pressure

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.



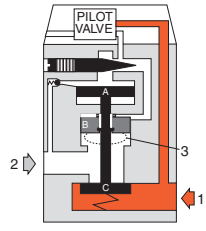
Pilot Energized

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.

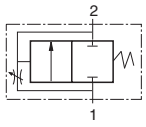


Pilot De-energized

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.



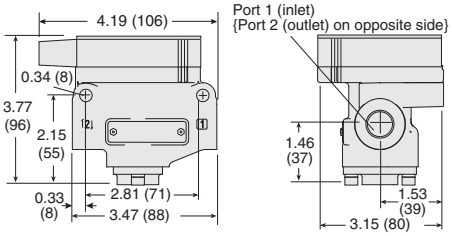
2-Way 2-Position Valves					
Port Size 1, 2	Body Size	Valve Model Number*	C_v	Weight lb (kg)	
1/4	3/8	2781A2007	2.3	1.5 (0.7)	
3/8	3/8	2781A3007	3.8	1.5 (0.7)	
1/2	3/8	2781A4017	4	1.5 (0.7)	
1/2	3/4	2781A4007	13	2.3 (1.0)	
3/4	3/4	2781A5007	15	2.3 (1.0)	
1	3/4	2781A6017	16	2.3 (1.0)	
1	1¼	2781A6007	24	6.0 (2.7)	
1¼	1¼	2781A7007	29	6.0 (2.7)	
1½	1¼	2781A8017	29	6.0 (2.7)	



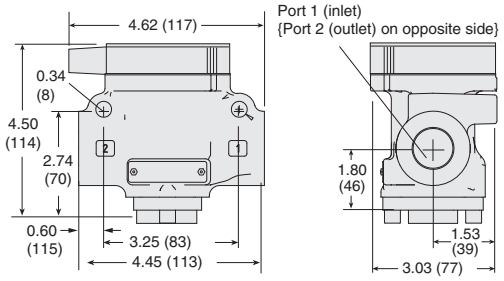
* NPT port threads. For BSPP threads, add a "D" prefix to the model number, e.g., D2781A2007.

Valve Dimensions – inches (mm)

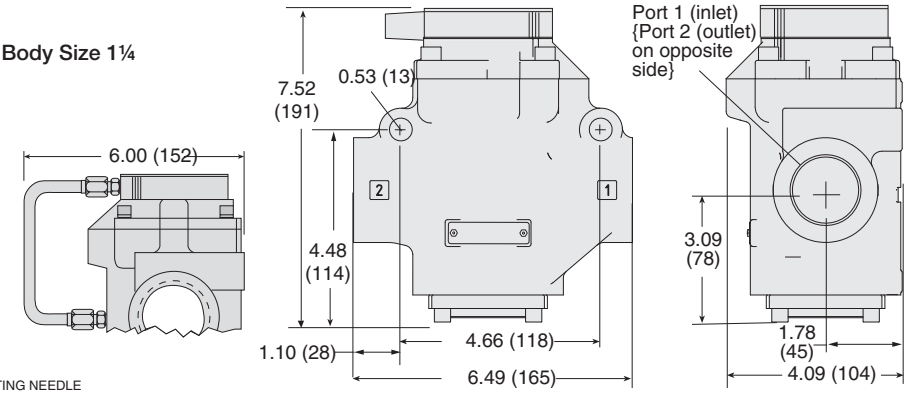
Body Size 3/8



Body Size 3/4



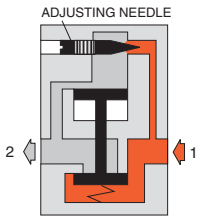
Body Size 1¼



VALVE OPERATION

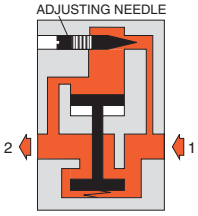
Air Pressure to Inlet

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.



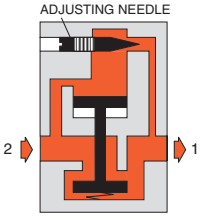
Valve Opens to Full Flow

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.



STANDARD SPECIFICATIONS (for valves on this page)**:**

Construction: Poppet.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 15 to 150 psig (1 to 10.3 bar).

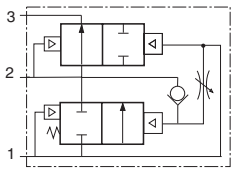
NOTE: Per specifications and regulations, these products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

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

F1

3-Way 2-Position Valve

Port Size 1, 2	Port Size 3	Body Size	Valve Model Number*	C_v 1-2	C_v 2-3	Weight lb (kg)
1/4	1/2	3/8	2783C2037	2.5	3.1	4.5 (2.0)
3/8	1/2	3/8	2783C3037	3.6	5.3	4.5 (2.0)
1/2	1/2	3/8	2783C4047	3.3	5.3	4.5 (2.0)
1/2	1	3/4	2783C4037	10	13	5.0 (2.3)
3/4	1	3/4	2783C5037	12	15	5.0 (2.3)
1	1	3/4	2783C6047	12	16	5.0 (2.3)
1	1½	1¼	2783C6037	23	34	8.8 (4.0)
1¼	1½	1¼	2783B7037	30	32	8.8 (4.0
1½	1½	1¼	2783B8047	30	31	8.8 (4.0)

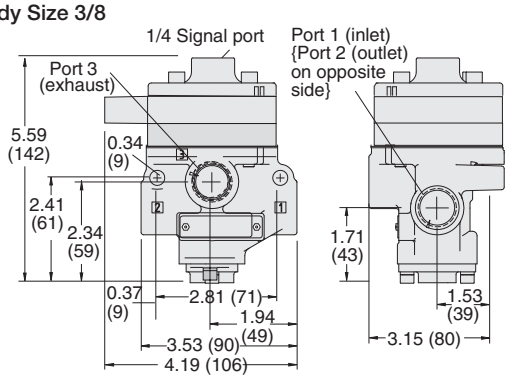


* NPT port threads. For BSPP threads, add a "D" prefix to the model number, e.g., D2783C2037.

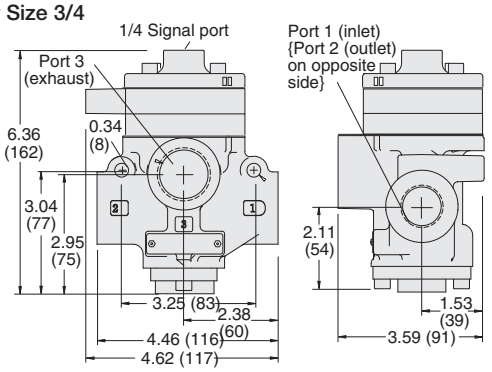
1/4 thru 1 Exhaust Port Size

1 thru 1½ Exhaust Port Size

Body Size 3/8

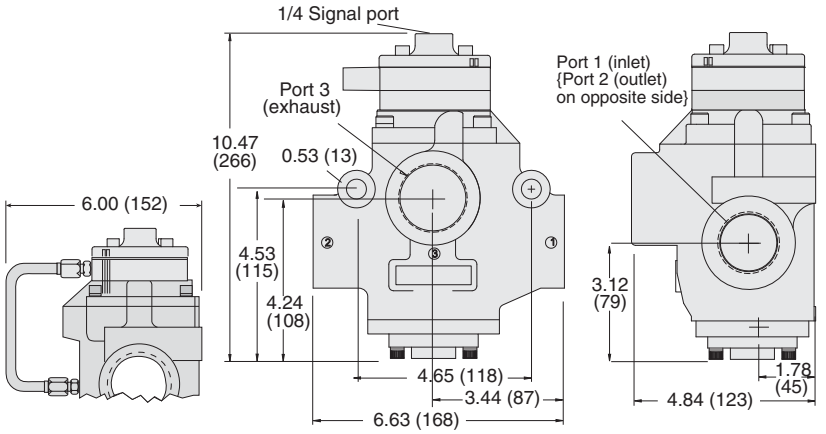


Body Size 3/4



Body Size 1¼

Valve Dimensions – inches (mm)



Accessories & Options

Silencers

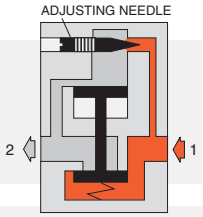
Port Size	Thread Type	Model Number* NPT Threads	Model Number* BSPT Threads	Avg. C_v
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum.
Flow Media: Filtered air.

VALVE OPERATION

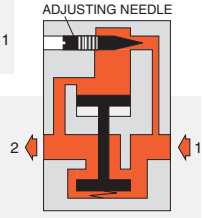
Air Pressure to Inlet

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.



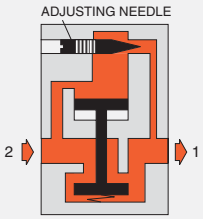
Valve Opens to Full Flow

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.



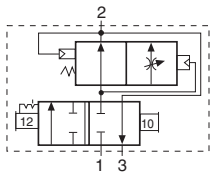
STANDARD SPECIFICATIONS (for valves on this page):

Construction: Poppet.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 15 to 150 psig (1 to 10.3 bar).

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

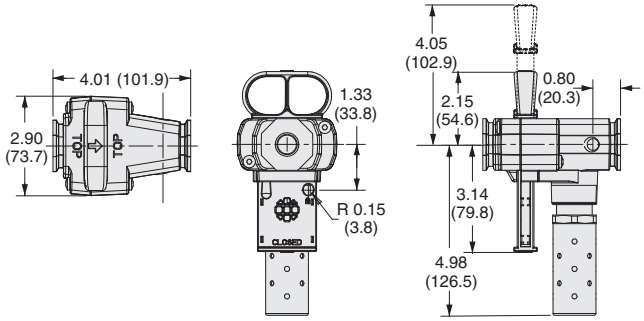
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

3-Way 2-Position Valve, Modular						
Port Size		Valve Model Number*	C_v		Weight lb (kg)	
1, 2	3		1-2	2-3		
1/4	3/4	Y1523A2103	3.7	7.8	1.7 (0.8)	
3/8	3/4	Y1523A3103	5.1	8.3	1.7 (0.8)	
1/2	3/4	Y1523A4103	5.5	8.6	1.8 (0.8)	
3/4	3/4	Y1523A5113	5.6	8.1	1.8 (0.8)	



* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD1523A2103.

Valve Dimensions – inches (mm)



Accessories & Options

Silencers

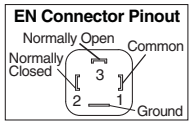
Port Size	Thread Type	Model Number	Avg. C_v
3/4	Male - NPT	5500A5003	11.5
	Male - BSPT	D5500A5003	11.5

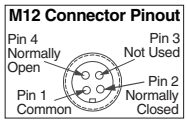
Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

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

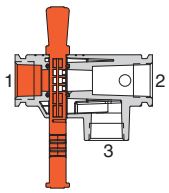
Model Number	356A30

F

VALVE OPERATION

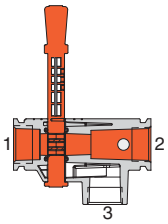
Valved Closed

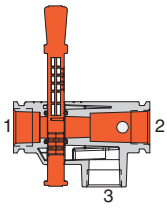
With a short push of the blue handle inward, the flow of supply is blocked and downstream air is exhausted via the exhaust port at the bottom of the valve. It is required by OSHA that the L-O-X® valves with EEZ-ON® operation be padlocked in this position to prevent the handle from being pulled outward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

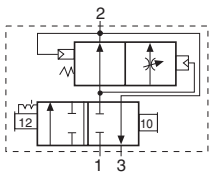
Construction: Spool.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 0 to 200 psig (0 to 14 bar).
Lock Hole Diameter: 0.27 inch (7.0 mm).
Length of Hole: 0.43 inch (10.9 mm).

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, Classic

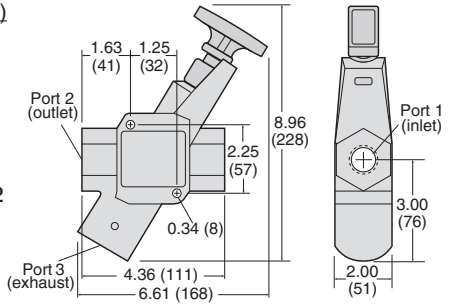
Port Size 1, 2	Port Size 3	Body Size	Valve Model Number*	C_v 1-2	C_v 2-3	Weight lb (kg)
3/8	3/4	1/2	Y1523B3102	3.64	2.81	1.5 (0.7)
1/2	3/4	1/2	Y1523B4102	4.86	3.51	1.5 (0.7)
3/4	3/4	1/2	Y1523B5112	5.09	2.91	1.5 (0.7)
3/4	1¼	1	Y1523B5102	10.08	8.56	3.2 (1.5)
1	1¼	1	Y1523B6102	11.07	8.45	3.2 (1.5)
1¼	1¼	1	Y1523B7112	11.86	8.46	3.2 (1.5)



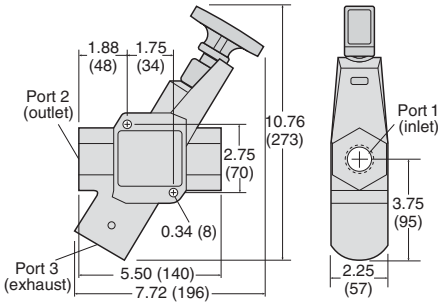
* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD1523B3102.

Valve Dimensions – inches (mm)

Body Size 1/2



Body Size 1



Accessories & Options

Silencers

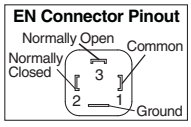
Port Size	Thread Type	Model Number*	Avg. C_v
3/4	Male - NPT	5500A5003	11.5
	Male - BSPT	D5500A5003	11.5
1¼	Male - NPT	5500A7013	16.4
	Male - BSPT	D5500A7013	16.4

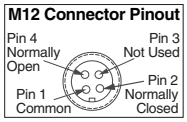
Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

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.

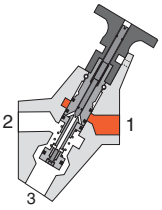
Multiple Lockout Device

Model Number	356A30

VALVE OPERATION

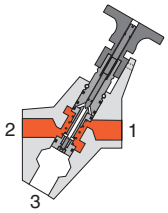
Valved Closed

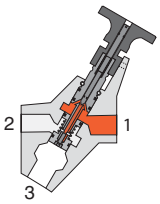
With a short push of the blue handle inward, the flow of supply is blocked and downstream air is exhausted via the exhaust port at the bottom of the valve. It is required by OSHA that the L-O-X® valves with EEZ-ON® operation be padlocked in this position to prevent the handle from being pulled outward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

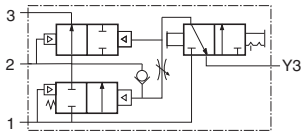
Construction: Spool.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 0 to 150 psig (0 to 10 bar).

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.

3-Way 2-Position Valve, Manual Lockout Controlled

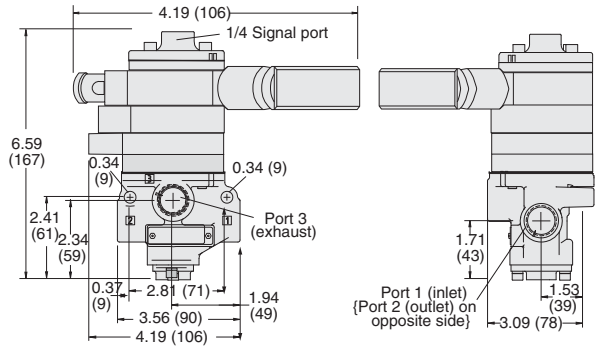
Port Size 1, 2	Port Size 3	Body Size	Valve Model Number*	C_v 1-2	C_v 2-3	Weight lb (kg)
1/4	1/2	3/8	Y2783B2055	2.5	3.1	4.3 (2.0)
3/8	1/2	3/8	Y2783B3055	3.6	5.3	4.3 (2.0)
1/2	1/2	3/8	Y2783B4065	3.3	5.3	4.3 (2.0)
1/2	1	3/4	Y2783B4055	10	13	4.8 (2.2)
3/4	1	3/4	Y2783B5055	12	15	4.8 (2.2)
1	1	3/4	Y2783B6065	12	16	4.8 (2.2)
1	1½	1¼	Y2783A6055	23	34	7.9 (3.6)
1½	1½	1¼	Y2783A7055	30	32	7.9 (3.6)
1½	1½	1¼	Y2783A8065	30	31	7.9 (3.6)



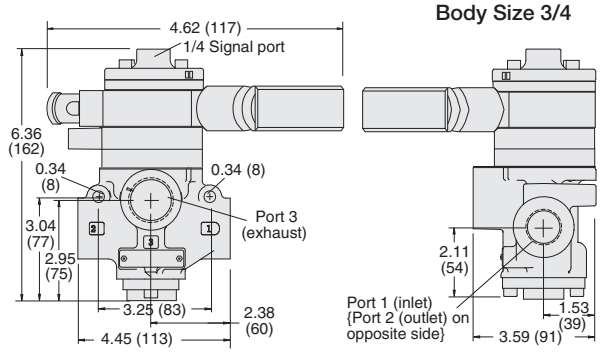
* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD2783B2055.

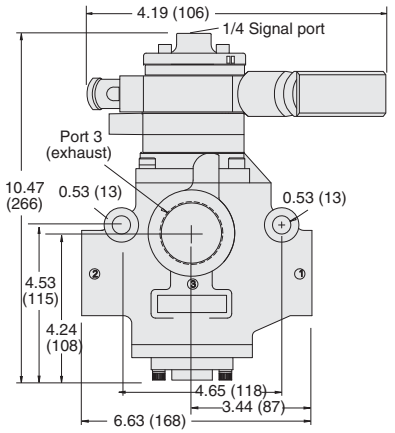
Valve Dimensions – inches (mm)

Body Size 3/8

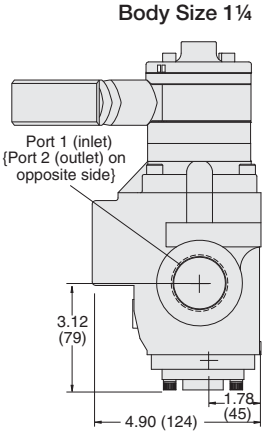


Body Size 3/4





Body Size 1¼



Accessories & Options

Silencers

Port Size	Thread Type	Model Number* NPT Threads	Model Number* BSPT Threads	Avg. C_v
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum. **Flow Media:** Filtered air.

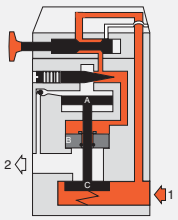
Multiple Lockout Device

Model Number 356A30

VALVE OPERATION

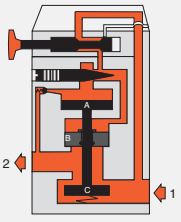
L-O-X® Valve (Handle) Open

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.



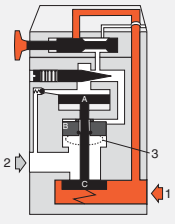
Full Pressure

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):

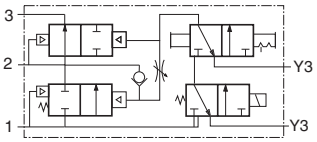
Construction: Poppet.
Mounting Type: In-Line.
Ambient/Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 40 to 150 psig (2.8 to 10.3 bar).

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, Manual Lockout Controlled

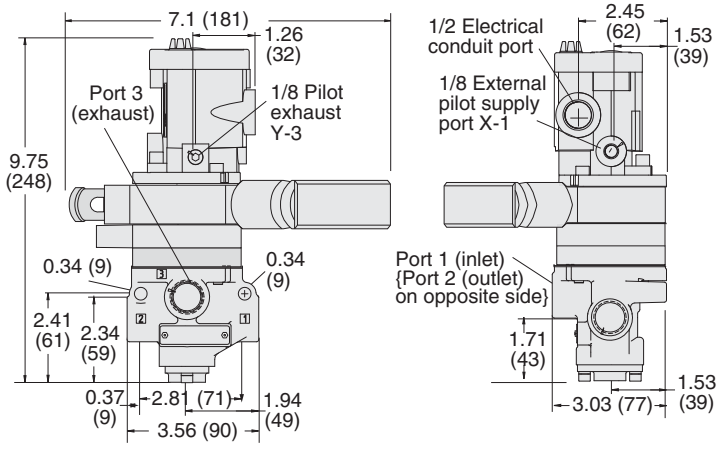
Port Size 1, 2	Port Size 3	Body Size	Valve Model Number*	C_v 1-2	C_v 2-3	Weight lb (kg)
1/4	1/2	3/8	Y2773B2075**	2.5	3.1	5.3 (2.4)
3/8	1/2	3/8	Y2773B3075**	3.6	5.3	5.3 (2.4)
1/2	1/2	3/8	Y2773B4085**	3.3	5.3	5.3 (2.4)
1/2	1	3/4	Y2773B4075**	10	13	6.0 (2.7)
3/4	1	3/4	Y2773B5075**	12	15	6.0 (2.7)
1	1	3/4	Y2773B6085**	12	16	6.0 (2.7)
1	1½	1¼	Y2773B6075**	23	34	9.5 (4.3)
1¼	1½	1¼	Y2773B7075**	30	32	9.5 (4.3)
1½	1½	1¼	Y2773B8085**	30	31	9.5 (4.3)



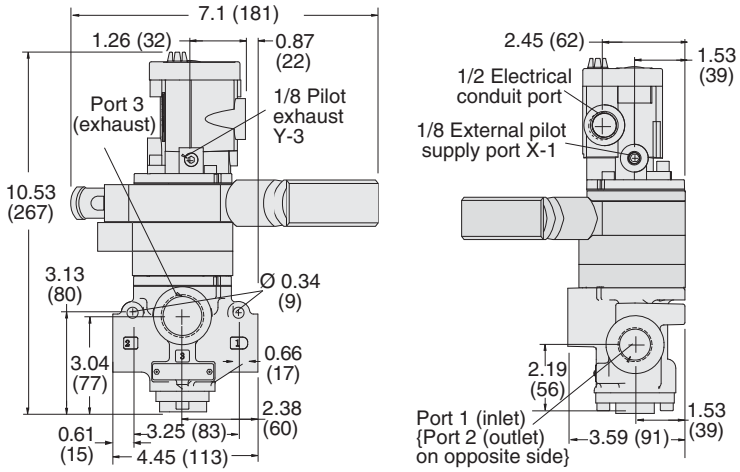
* NPT port threads. For BSPP threads, insert a "D" after "Y" to the model number, e.g., YD2773B2075.
**Insert voltage code: "W" = 24 volts DC; "Z" = 110-120 volts AC, 50/60 Hz; e.g.,Y2773B2075W.
For other voltages, consult ROSS.

Valve Dimensions – inches (mm)

Body Size 3/8



Body Size 3/4



STANDARD SPECIFICATIONS (for valves on this page):

Construction: Poppet.
Mounting Type: In-Line.
Standard Voltages: 24 volts DC; 110-120 volts AC, 50/60 Hz.
Power Consumption: 87 VA inrush, 30 VA holding on 50 or 60 Hz; 14 watts on DC.

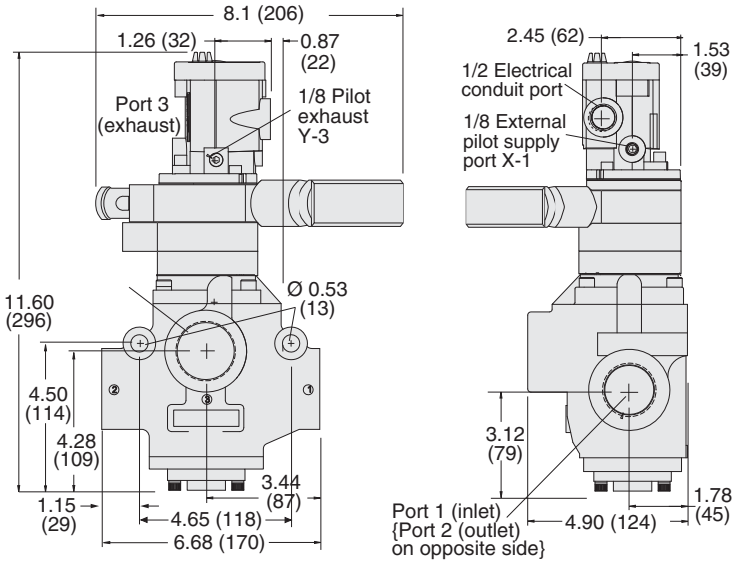
Ambient Temperature: 40° to 120°F (4° to 50°C).
Media Temperature: 40° to 175°F (4° to 80°C).
Flow Media: Filtered air.
Inlet Pressure: 40 to 150 psig (2.8 to 10.3 bar).

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.

Valve Dimensions – inches (mm)

Body Size 1¼



Accessories & Options

Silencers

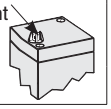
Port Size	Thread Type	Model Number* NPT Threads	Model Number* BSPT Threads	Avg. C_v
1/2	Male	5500A4003	D5500A4003	4.7
1	Male	5500A6003	D5500A6003	14.6
1½	Female	5500A8001	D5500A8001	29.9

Pressure Range: 0 to 300 psig (0 to 20.7 bar) maximum.
Flow Media: Filtered air.

Indicator Light Kits

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

Indicator Light



Multiple Lockout Device

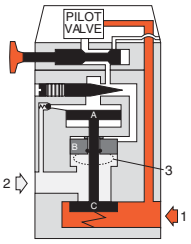
Model Number	356A30

F

VALVE OPERATION

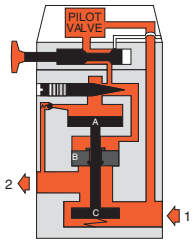
L-O-X® Handle Open and Pilot Not Energized

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.



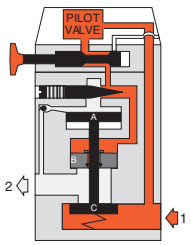
Full Pressure

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.



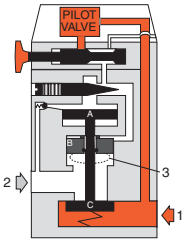
L-O-X® Handle Open and Pilot Energized

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.



General Information

Standard Specifications

The standard specifications for the products on each page of this catalog are given on the same page or referenced. For solenoid pilot valves, models with internal pilot supply are listed. Most models are also available for use with external pilot supply or have a built-in pilot supply selector valve.

The products in this catalog are intended for use in industrial pneumatic systems. Most products are adaptable to other uses and conditions not covered by the standard specifications given in this catalog. Weights shown are approximate and are subject to change. Dimensions given, unless otherwise noted, are envelope dimensions (not for mounting). Consult ROSS for further information.

Port Threads

Ports of valves and bases described in this catalog have NPT (ANSI B2.1) threads. Other thread types can be specified by putting an appropriate prefix letter on the model or part number when ordering.

Thread Types by Model Prefix Letter

Pneumatic Port Threads	Prefix Letter	Threaded Electrical Opening
NPT (ANSI B2.1)	None	NPT
ISO 228 - DIN 259 Parallel, BSPP#	**C***	—
ISO 228 - DIN 259 Parallel, BSPP#	**D**	G
ISO 228 - JIS B0203 Tapered#	**J**	ISO
SAE 1926- ISO 11926	**S**	NPT

* Used only for filters, regulators, lubricators.

ISO 228 threads superseds BSPP, G and JIS thread types.

Flow Ratings

Flow ratings are expressed as C_V where C_V = 1 corresponds to a steady state air flow of approximately 32 scfm under the following conditions:

Inlet pressure = 100 psig (6.7 bar)
Pressure drop = 10 psi (0.69 bar)
Air temperature = 68°F (20°C)
Relative humidity = 36%

Note: *Because widely differing test standards are used to measure C_V values, the figures given in this catalog should not be used to compare ROSS valves with those of other makers. The C_V ratings given here are intended only for use with performance charts published by ROSS. The C_V ratings are averages for the various flow paths through the valve and are for steady flow conditions.*

Approvals and Certifications

ROSS products are designed to meet a number of industrial standards, including the Canadian Standards Association (C.S.A.) guidelines.

For more information on specific product approvals, contact your local distributor or ROSS.

Solenoids

All ROSS standard solenoids are rated for continuous duty (unless noted otherwise) and will operate the valve within the air pressure range specified in this catalog.

Explosion-Proof Solenoid Pilot available, for more information consult ROSS.

Voltage & Hertz

When ordering a solenoid valve, also specify the desired solenoid voltage and hertz.

Voltage Types by Model Suffix Letter

Voltage	Suffix Letter
120 volts AC	**Z**
220 volts AC	**Y**
12 volts DC	**H**
24 volts DC	**W**
48 volts DC	**M**
90 volts DC	**K**
110 volts DC	**P**
125 volts DC	**C**

Recommended Solenoid Voltages: 100-110 volts AC, 50 Hz; 100-120 volts AC, 60 Hz; 24 volts DC; 110 volts DC.

In addition, the following voltages are available:

200, 220 volts AC, 50 Hz
200, 240, 480 volts AC, 60 Hz

24, 48, 220 volts AC, 50 Hz
240 volts AC, 60 Hz

200, 220 volts AC, 50 Hz
200, 240 volts AC, 60 Hz.

For example: Model 2773B5001, 120 volts AC, 60 Hz.
Model W6076B2401, 220 volts AC, 50 Hz.

Please note that not all configurations are available for all models.

For additional information or help with voltage configuration, please contact your local distributor or ROSS.

Port Identification

Valve symbols in this catalog conform to the ISO 1219-1:1991 standard of the International Organization for Standardization (ISO) and the SAE J2051 standard of the Society of Automotive Engineers (SAE) respectively.

Information or Technical Assistance

For additional information or application assistance concerning ROSS products, consult ROSS or your local ROSS distributor (see contact information on the back cover).

Order Placement

For order placement, consult ROSS or your local ROSS distributor.

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

CAUTIONS, WARNINGS and STANDARD WARRANTY

PRE-INSTALLATION or SERVICE

1. Before servicing a valve or other pneumatic component, be sure that all sources of energy are turned off, the entire pneumatic system is shut off and exhausted, and all power sources are locked out (ref: OSHA 1910.147, EN 1037).

2. All ROSS products, including service kits and parts, should be installed and/or serviced only by persons having training and experience with pneumatic equipment. Because any installation can be tampered with or need servicing after installation, persons responsible for the safety of others or the care of equipment must check every installation on a regular basis and perform all necessary maintenance.

3. All applicable instructions should be read and complied with before using any fluid power system in order 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 location listed on the cover of this document.

4. Each ROSS product should be used within its specification limits. In addition, use only ROSS parts to repair ROSS products.

WARNING: Failure to follow these directions can adversely affect the performance of the product or result in the potential for human injury or damage to property.

FILTRATION and LUBRICATION

5. 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. ROSS recommends a filter with a 5-micron rating for normal applications.

6. All standard ROSS filters and lubricators with polycarbonate plastic bowls are designed for compressed air applications only. Do *not* fail to 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, hazardous leakage, and the potential for human injury or damage to property. Immediately replace a crazed, cracked, or deteriorated bowl. When bowl gets dirty, replace it or wipe it with a clean dry cloth.

7. Only use lubricants which are compatible with materials used in the valves and other components in the system. Normally, compatible lubricants are petroleum based 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 human injury, and/or damage to property.

AVOID INTAKE/EXHAUST RESTRICTION

8. Do not restrict the air flow in the supply line. To do so could reduce the pressure of the supply air below the minimum requirements for the valve and thereby cause erratic action.

9. 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.

WARNING: ROSS expressly disclaims all warranties and responsibility for any unsatisfactory performance or injuries caused by the use of the wrong type, wrong size, or an inadequately maintained silencer installed with a ROSS product.

POWER PRESSES

10. 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.

ENERGY ISOLATION/EMERGENCY STOP

11. Per specifications and regulations, ROSS **L-O-X®** and **L-O-X®** with **EEZ-ON®** operation products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

STANDARD WARRANTY

All products sold by ROSS CONTROLS are warranted for a one-year period [with the exception of all Filters, Regulators and Lubricators ("FRLs") which are warranted for a period of seven years] from the date of purchase to be free of defects in material and workmanship. ROSS' obligation under this warranty is limited to repair or replacement of the product or refund of the purchase price paid solely at the discretion of ROSS and provided such product is returned to ROSS freight prepaid and upon examination by ROSS is found to be defective. This warranty becomes void in the event that product has been subject to misuse, misapplication, improper maintenance, modification or tampering.

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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 pneumatic systems.

Other literature is available for engineering, maintenance, and service requirements. If you need products or specifications not shown here, please contact ROSS or your ROSS distributor. They 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' website at www.rosscontrols.com.

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Online version only.