

PRODUCT INFORMATION

LOCKOUT VALVES

L-O-X[®] 15 Series

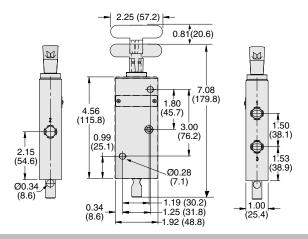


ROSS CONTROLS

Manual Lockout & Exhaust L-O-X[®] Valves Slim-Line

	3-Way 2-Position Valve									
Port Size		Valve Model Number		C _v			2			
1, 2	3	NPT Threads	G Threads	1-2	2-3	Weight lb (kg)				
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)	³ 1			

Valve Dimensions – inches (mm)



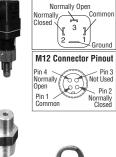
ACCESSORIES & OPTIONS

Silencers					
Port Size Thread Type Model Number Avg. C _v					
3/8	Male - NPT	5500A3013	2.7		
	Male - R	D5500A3013	2.7		
Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.					

Pressure Range: 0 to 290 psig (0 to 20 bar) maxin **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 fa	alling pressure of 5	psig (0.34 bar).		



356A30

EN Connector Pinout

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

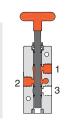
Model Number**

** 1/8 NPT port threads.

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.

988A30

Model Number



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

2

Pop-Up Indicator

Multiple Lockout Device

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

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.





Energy Isolation 15 Series

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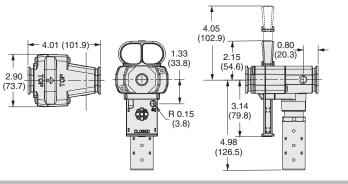
Manual Lockout & Exhaust L-O-X[®] Valves Modular

Energy Isolation 15 Series

	3-Way 2-Position Valve,								
Port S	Size	Valve Model Number		C	v	Weight			
1, 2	3	NPT Threads	G Threads	1-2	2-3	lb (kg)	2		
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		
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	D5500A5003	11.5		
Pressure Range: 0 to 290 psig (0 to 20 bar) maximum.					

ure Range: 0 to 290 psig (0 to 20 par) maxim Flow Media: Filtered air.



Pressure Switch	(b) (-	EN Connector Pinout Normally Open			
Connection Type	Model Number*	Por	t Threads		Closed 3
EN 175301-803 Form A	586A86	1.	/8 NPT	(ROM)	M12 Connector Pinou
M12	1153A30	1,	/8 NPT	T.	Pin 4 Pin 3
*Pressure switch closes on fa	•	Pin 4 Normally Open Pin 1 Common Closed			
Pop-Up Indicator	Model Numbe	er**	988A30	N	
	** 1/8 NPT po	rt th	reads.		

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VALVE OPERATION

Valved Closed

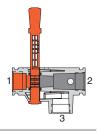
When the red handle is pushed inward, the flow of supply air is blocked and downstream air is exhausted via the exhaust port. While servicing or maintaining machinery, the L-O-X® valve should be padlocked in this position to prevent the handle from being pulled outward inadvertently where potential for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

Multiple Lockout Device

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.

Model Number



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

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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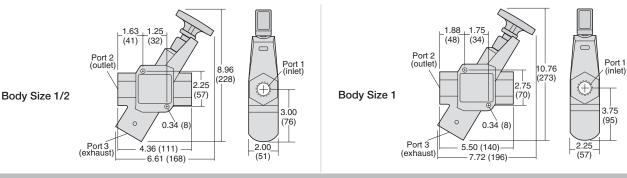
Manual Lockout & Exhaust L-O-X[®] Valves Classic

Energy Isolation 15 Series

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	3-Way 2-Position Valve							
Port S	Port Size Body Valve Model Number		C _v		Weight			
1, 2	3	Size	NPT Threads	G Threads	1-2	2-3	lb (kg)	
3/8	3/4	1/2	Y1523C3002	YD1523C3002	4.74	3.57	2.0 (0.9)	2
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)	│└ <u>∽</u> ┠ <u>┰</u> ┠ <u>┟</u> ┰┠
3/4	1¼	1	Y1523C5002	YD1523C5002	13.12	8.98	3.0 (1.4)	3 1
1	1¼	1	Y1523C6002	YD1523C6002	16.56	9.52	3.0 (1.4)	
1¼	1¼	1	Y1523C7012	YD1523C7012	19.25	9.74	3.0 (1.4)	

Valve Dimensions - inches (mm)



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ACCESSORIES & OPTIONS

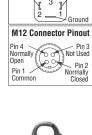
Silencers					
Port Size Thread Type Model Number Avg.			Avg. C _v		
0/4	Male - NPT	5500A5003	11.5		
3/4	Male - R	D5500A5003	11.5		
1¼	Male - NPT	5500A7013	16.4		
1 //4	Male - R	D5500A7013	16.4		

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



Pressure Switches Model Number Port Threads **Connection Type** EN 175301-803 Form A 586A86 1/8 NPT 1153A30 1/8 NPT M12 Pressure switch closes on falling pressure of 5 psig (0.34 bar).

Pop-Up Indicator	Model Number** 988A3			
	** 1/8 NPT port threads.			
Multiple Lockout	Device	Mode	el Number	356A30



EN Connector Pinout

3

Normally Open Normally Closed 🗸

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.



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				
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		Spool: 316 Stainless Steel Seals: Fluorocarbon				
Fluid Media	Filtered air						

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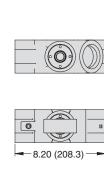


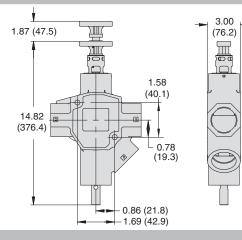
Manual Lockout & Exhaust L-O-X[®] Valves High-Capacity

Energy Isolation 15 Series

	3-Way 2-Position Valve						
Port	Size	Valve Model Number C _v		Weight	0		
1, 2	3	NPT Threads	G Threads	1-2	2-3	lb (kg)	
1½	2	Y1523C8002	YD1523C8002	35.53	50.98	8.3 (3.7)	
2	2	Y1523C9012	YD1523C9012	40.38	52.23	8.3 (3.7)	~ 1

Valve Dimensions - inches (mm)



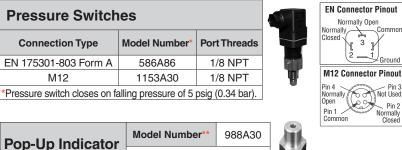


Valves can be padlocked in two locations, at the handle or at the end of the spool.

ACCESSORIES & OPTIONS

Silencers			
Thread Type	Model Number	Avg. C _v	
Female - NPT	5500B9001	34.2	
Female - R	D5500B9001	34.2	
	Thread Type Female - NPT	Thread Type Model Number Female - NPT 5500B9001	

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



** 1/8 NPT port threads.

Multiple Lockout Device Model Number



VALVE OPERATION

Valved Closed

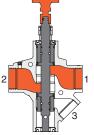
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With a short push of the red handle inward, the flow of supply air is blocked and downstream air is exhausted via the exhaust port while servicing or maintaining machinery. Padlock the L-O-X[®] valve in this position to prevent the handle from being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

2

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 SPECIFICATIO	NS (for valves on this	page):
Construction Design	Spool	Lock Hole	Diameter: 0.27 inch (7.0 mm)
Mounting Type	In-line	LOCK HOIC	Length of Hole: 0.43 inch (10.9 mm)
Temperature	Ambient/Media: 40° to 175°F (4° to 80°C)		Valve Body: Cast Aluminum
Fluid Media	Filtered air	Construction Material	Spool: 316 Stainless Steel Seals: Fluorocarbon
Operating Pressure	0 to 300 psig (0 to 20.7 bar)		5cais. 1 10010cai 1001

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.



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 number when ordering.

Thread Type	es by Model	Prefix Letter
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Prefix Letter	Threaded Electrical Opening
None	NPT
C*	_
D	G
J	ISO
S	NPT
	Letter None C* D J

* Used only for filters, regulators, lubricators.

ISO 228 threads superseeds 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 = $68^{\circ}F$ (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
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Voltage	Suffix Letter
120 volts AC	Z
220 volts AC	Y
12 volts DC	Н
24 volts DC	W
48 volts DC	М
90 volts DC	К
110 volts DC	Р
125 volts DC	С

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 rosscontrols.com.

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.

THE WARRANTY EXPRESSED ABOVE IS IN LIEU OF AND EXCLUSIVE OF ALL OTHER WARRANTIES AND ROSS EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED WITH RESPECT TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ROSS 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 ROSS 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 ROSS MAY EXTEND THE LIABILITY OF ROSS AS SET FORTH HEREIN.





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Full-Service Global Locations

There are ROSS Distributors Throughout the World

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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.

U.S.A. - Content subject to change.

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