

Lone Wolf

Normally open proportional solenoid valve

FEATURES

- 2-way normally open
- Achieves rapid, stable performance
- Enhances system control and patient comfort
- Maintains ideal flow through normally open valve with thermal compensation
- Extremely reliable
- RoHS compliant



MEDIA COMPATIBILITY

Air, nitrogen, oxygen & others

WETTED MATERIALS

Body:
360 HO₂ brass

Stem base:
430 FR stainless steel and brass 360 HT

All others:
FKM, 430 FR stainless steel, 300 series stainless steel

ELECTRICAL

Power 0.5, 1.0 or 2.0 W
Voltage 5.5 to 29 V_{DC}
Electrical terminal PC mount, 18" wire leads

PHYSICAL PROPERTIES

Operating environment	0 to 50 °C
Storage temperature	-40 to 70 °C
Length	45.3 mm (1.785 in)
Width	16.5 mm (0.625 in)
Height	17 mm (0.67 in)
Porting	manifold mount with 43 µm screens, 1/8" barbs, 5/64" barbs
Weight	63 g (2.2 oz)
Internal volume	0.508 cm ³ (0.031 in ³)
Filtration (recommended)	40 µm
Lubrication	None required

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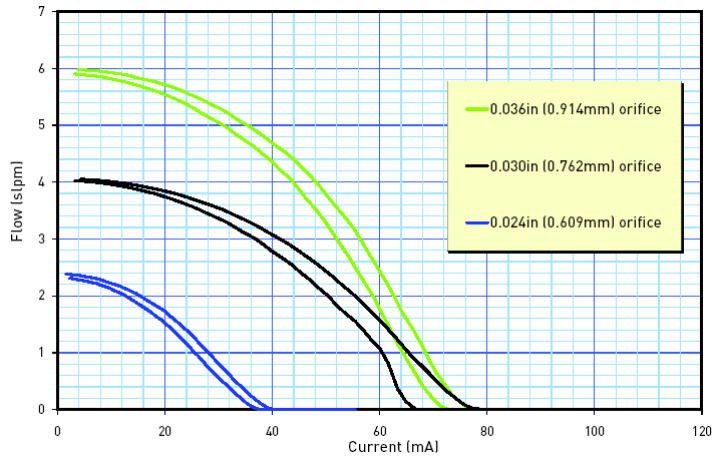
Normally open proportional solenoid valve

PERFORMANCE CHARACTERISTICS

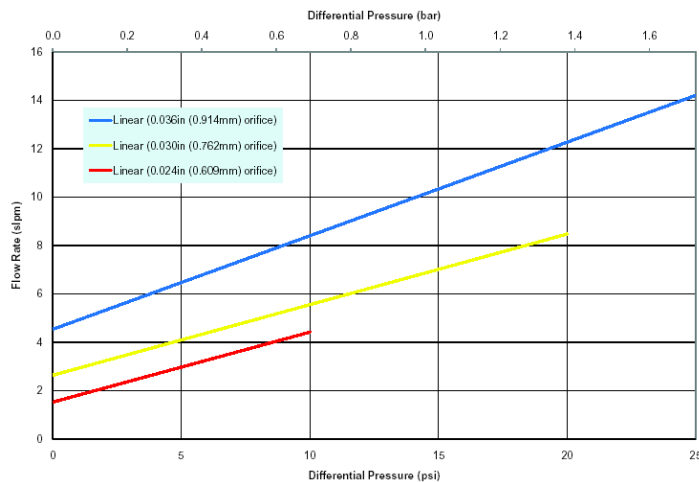
Part no.	Pressure	Vacuum	Orifice sizes	Leak rate ¹	Response
LW1...	0..10 psi	0...20 "Hg (0...10 psi)	0.024" (0.610 mm)	Internal: 0.2 sccm (bubble tight)	<30 msec cycling (2 W)
LW2...	0...20 psi		0.030" (0.762 mm)		
LW3...	0...25 psi		0.036" (0.914 mm)	External: 0.016 sccm	

FLOW CURVES²

Typical air flow,
13.5 V coil @ 5 psid



Pressure vs flow



Notes:

- ¹ sccm denotes Standard Cubic Centimeters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1000 sccm = 1 slpm.
- ² slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.

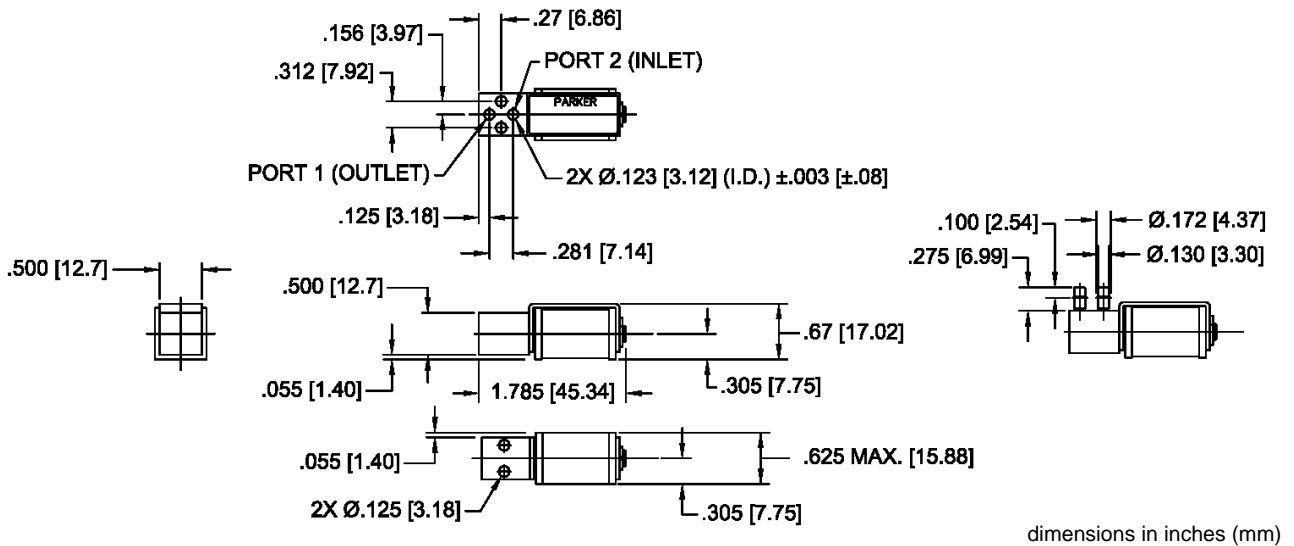
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ELECTRICAL REQUIREMENTS

Min. available voltage	0.024" orifice		0.030" orifice		0.036" orifice	
	Nominal coil resistance @ 20 °C	Input current for full shut off	Nominal coil resistance @ 20 °C	Input current for full shut off	Nominal coil resistance @ 20 °C	Input current for full shut off
5.5 V	47 Ω	92 mA	23 Ω	177 mA	11 Ω	335 mA
8.0 V	68 Ω	76 mA	47 Ω	127 mA	23 Ω	233 mA
11.5 V	136 Ω	55 mA	68 Ω	105 mA	47 Ω	168 mA
13.5 V	274 Ω	40 mA	136 Ω	76 mA	68 Ω	138 mA
20.0 V	547 Ω	28 mA	274 Ω	55 mA	136 Ω	100 mA
29.0 V	1094 Ω	20 mA	547 Ω	40 mA	274 Ω	73 mA

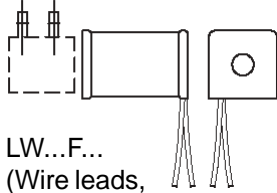
OUTLINE DRAWING



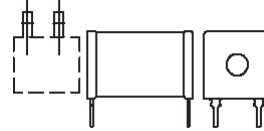
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ELECTRICAL INTERFACE OPTIONS

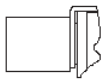


LW...F...
(Wire leads,
no terminals)

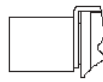


LW...P...
(PC mount, 4 pins)

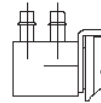
PNEUMATIC INTERFACE OPTIONS



LW...0
(No barbs,
face seal to manifold)



LW...1
(No barbs,
face seal to manifold
with screen)



LW...8
(0.125" barbs, 1/8" I.D.
tubing, 1/4" O.D. max)

ORDERING INFORMATION

Options	Standard	Model no.				Material		Elastomer		Coil selection		Electrical interface		Pneumatic interface	
			Max. pressure	Orifice	Coil Wattage										
	LW	1	10 psi	0.024" (0.610 mm)	0.5 W	B	Brass	V	FKM	A	5.5 V	F	wire leads, 18-19"	0	manifold mount
		2	20 psi	0.030" (0.762 mm)	1 W					B	8 V				
		3	25 psi	0.036" (0.914 mm)	2 W					C	11.5 V	P	PC board mount, 4 PC pins	1	manifold mount with screens*
										D	13.5 V				
										E	20 V			8	1/8" barbs
										F	29 V				
														* this option will affect price	
Example:	LW	1				B		V		A		F		8	

Note: Not all combinations might be available. Please contact First Sensor for further information.

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