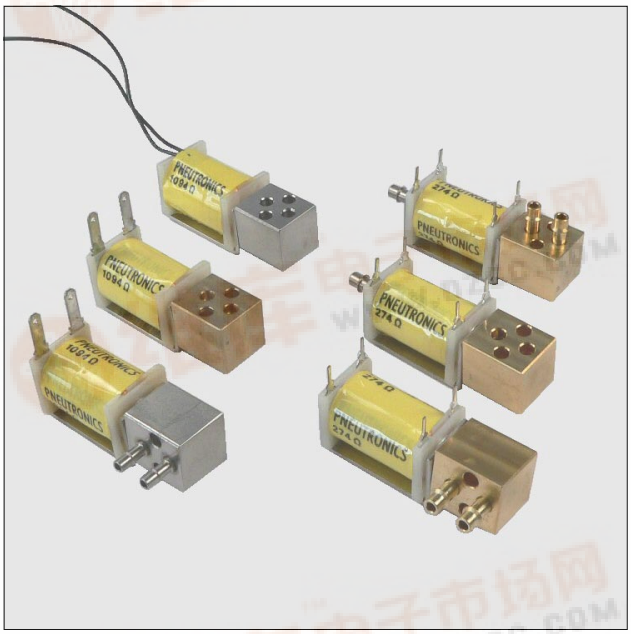
Series 11
PC mount switching solenoid valve

FEATURES

- 2-way or 3-way, 2 position valve (NO, NC & Distributor)
- Offer a discrete valve design with a 200 million life cycle rating
- Available in manifold mounting
- Provide a range of electrical coil options, including PC mountable, spade lugs, or wire leads
- Powerful enough for a range of uses that require high flow



MEDIA COMPATIBILITY

Gases and selected liquids

WETTED MATERIALS

Body:
360 HO2 brass;
302 series stainless steel (passivated)

Stem base:
385 HO2 brass;
303 series stainless steel (passivated)

All others:
FKM; EPDM; 430 FR series stainless steel (passivated); 302 series stainless steel

ELECTRICAL

Power	0.5, 1.0 or 2.0 W
Voltage	5, 12, 24 V_{DC} ± 10%

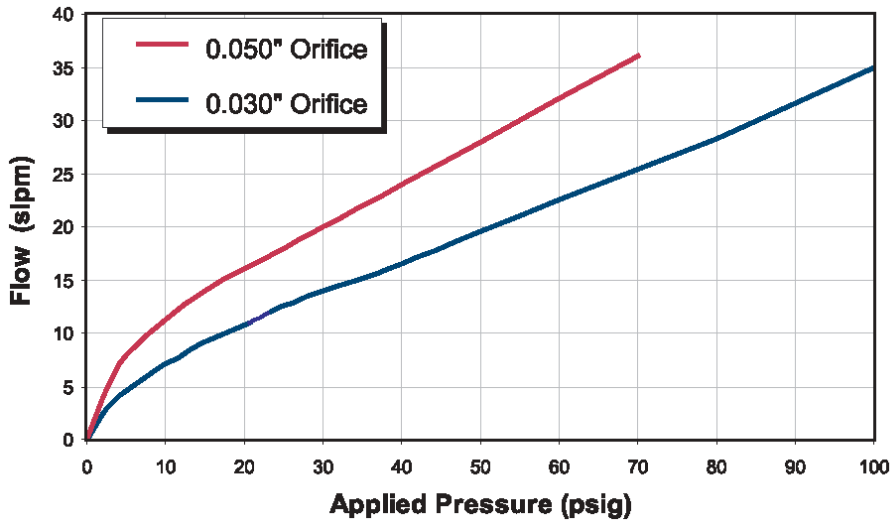
PHYSICAL PROPERTIES

Operating environment	0 to 70 °C
Storage temperature	-40 to 70 °C
Length	43.9 mm (1.73 in)
Width	15.9 mm (0.625 in)
Height	17 mm (0.67 in)
Porting	10-32 tapped ports, 1/16, 5/64 or 1/8 in stem barbs
Weight	60 g (2.1 oz)
Internal volume	0.026 in^3 (without fittings)
Filtration (recommended)	40 µm
Lubrication	None required

PERFORMANCE CHARACTERISTICS

Part no.	Pressure	Vacuum	Orifice sizes/ Equivalent C_V [1]	Leak rate [2]	Response
1110...	0...100 psig	0...27 "Hg (0...13 psi)	0.030" (0.762 mm)/ 0.017 C_V	≤0.016 sccm (bubble tight)	<30 msec cycling (2 Watt)
1113...	0...50 psig				
1116...	0...25 psig				
1112...	0...70 psig		0.050" (1.270 mm)/ 0.035 C_V		<30 msec cycling (2 Watt)
1115...	0...25 psig				
1118...	0...10 psig				

FLOW CURVE (typical air flow)[3]



Notes:

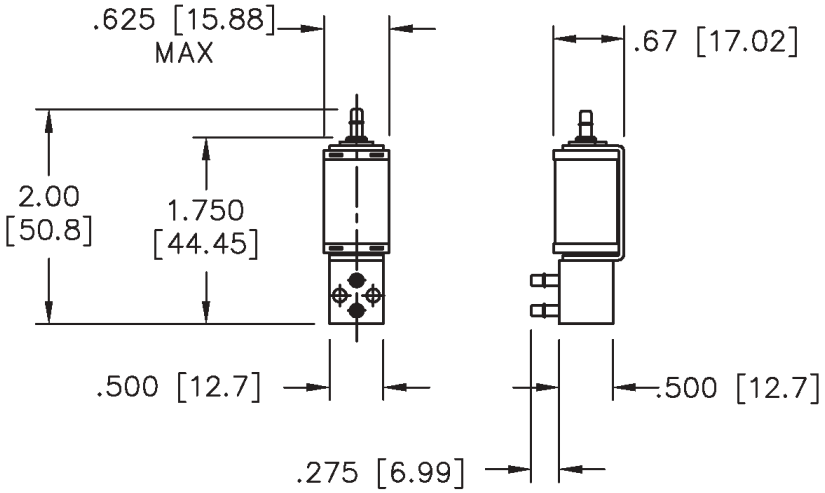
[1] The C_V value is the volume flow in US gallons/min under specific flow conditions and describes the relative flow capacity of a valve. If several valves with the same nominal diameter are compared, the valve with the highest C_V value has the best flow dynamics design. The equivalent european measure is the k_V value expressed in m^3/h (k_V = 0.86 C_V).

[2] 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.

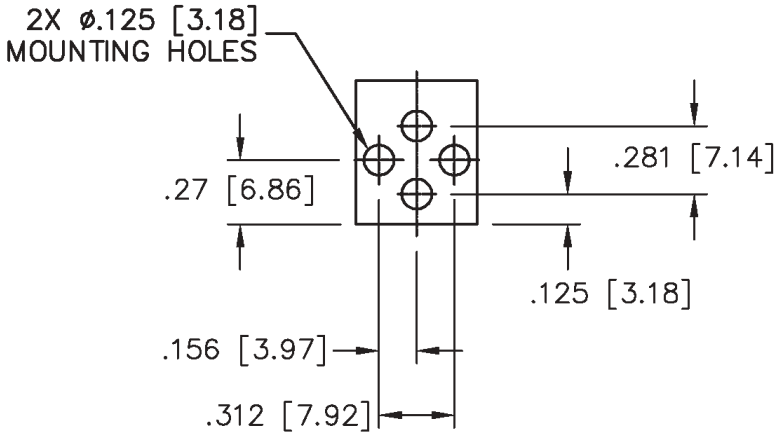
[3] slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.

OUTLINE DRAWING

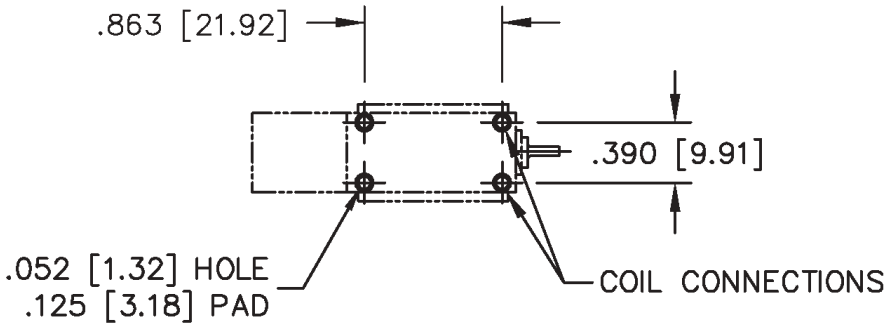
Basic dimensions



Port and mounting hole diagram

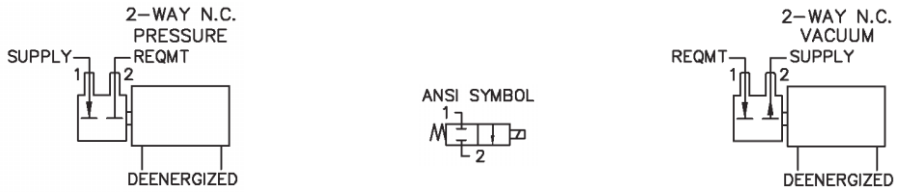


PC mounting diagram

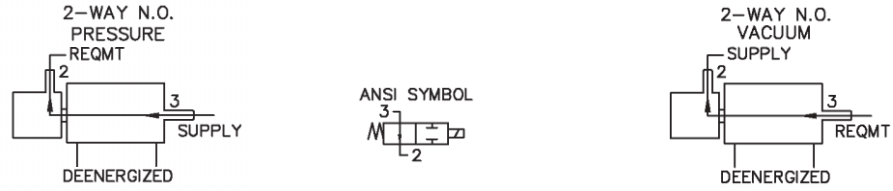


VALVE TYPE

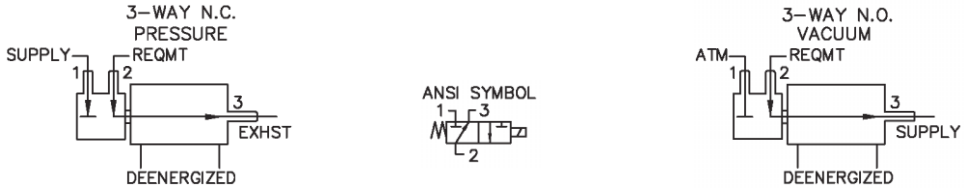
Type 1

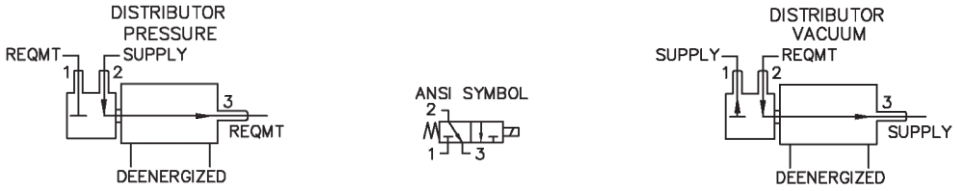


Type 2

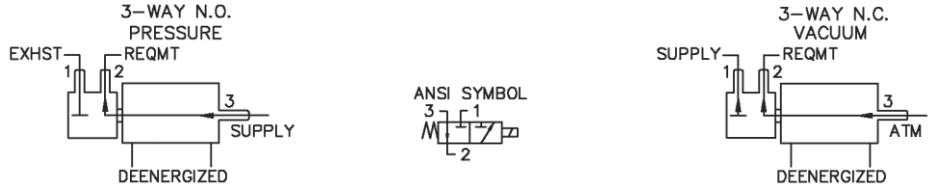


Type 3

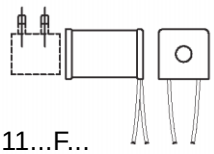




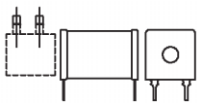
Type 4



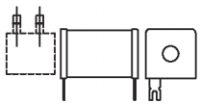
COIL STYLES



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



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



11...S...
(PC mount, 2 solder pads)

BODY STYLES

11...0...
(No barbs,
face seal to manifold)

11...6...
(0.062" barbs,
1/16" I.D. tubing)

11...7...
(0.078" barbs,
5/64" I.D. tubing)

11...8...
(0.125" barbs,
1/8" I.D. tubing,
1/4" O.D. max.)

STEM STYLES

11...0
(Type 1 top seat,
plugged)

11...6
(0.062" top seat,
1/16" I.D. tubing)

11...7
(0.078" top seat,
5/64" I.D. tubing)

11...8
(0.125" top seat,
1/8" I.D. tubing,
1/4" O.D. max.)

ORDERING INFORMATION

	Series	Model no.				Type		Material			Voltage		Coil type		Pneumatic connection body		Pneumatic connection stem	
			Max. pressure	Orifice size	Coil wattage				Body	Plunger & seal								
Options	11	10:	0...100 psi	0.030" (0.762 mm)	2 W	1:	2-way NC	BV:	brass	FKM	5:	5 V_{DC}	P:	4 PC pins	0:	no barbs	0:	type 1/ none
		12:	0...70 psi	0.050" (1.27 mm)	2 W	2:	2-way NO	SV:	SS*	FKM	12:	12 V_{DC}	S:	2 solder taps	6:	1/16" barbs	6:	1/16" barbs*
		13:	0...50 psi	0.030" (0.762 mm)	1 W	3:	3-way NC or distributor	BE:	brass	EPDM	24:	24 V_{DC}	Q:	Quick connect	7:	5/64" barbs	7:	5/64" barbs
		15:	0...25 psi	0.050" (1.27 mm)	1 W	4:	3-way NO						F:	Wire leads, 18", no terminals	8:	1/8" barbs	8:	1/8" barbs
		16:	0...25 psi	0.030" (0.762 mm)	0.5 W													
		18:	0...10 psi	0.050" (1.27 mm)	0.5 W													
								*Stainless steel									*1/16" barbs not available for 0.050" orifice	
Example:	11	10				3		BV			12		P		7		7	

Note: Not all combinations might be available.
Please contact your nearest Sensortechnics sales representative for further information.