

Normally closed proportional solenoid valve

FEATURES

- 2-way normally closed
- Offers operating pressure up to 150 psig and a range of orifice sizes
- Satisfies a 0.2 sccm leakage specification of He for 100 million life cycles and offers high repeatability
- Provides computer-automated calibrations and full calibration traceability
- Uses either DC current or pulse width modulation with closed loop feedback to deliver optimal system performance
- Maintains ideal flow through thermal compensation
- Oxygen and analytically clean



MEDIA COMPATIBILITY

Air, argon, helium, hydrogen, methane, nitrogen, oxygen & others

ELECTRICAL

Power max. 2 W

Voltage max. 5.5, 8, 11.5, 13.5, 20 or 29 V_{DC}

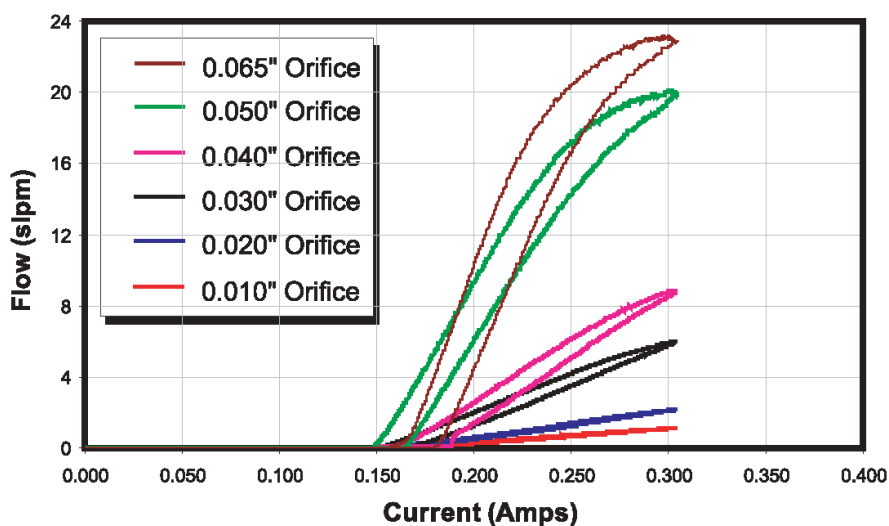
PHYSICAL PROPERTIES

Operating environment	0 to 55 °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	Barbs or 10-32 UNF female; manifold mount with screens
Weight	63 g (2.2 oz)
Internal volume	0.508 cm ³ (0.031 in ³)
Filtration (recommended)	
VSONC1..., VSONC2...	17 µm
all others	40 µm
Lubrication	None required

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PERFORMANCE CHARACTERISTICS

Part no.	Pressure	Vacuum	Orifice sizes	Leak rate ¹	Response
VSONC1...	0..150 psid	0...27 "Hg (0...13 psi)	0.010" (0.245 mm)	≤0.2 sccm of helium (bubble tight)	<30 msec cycling (2 W)
VSONC2...	0...150 psid		0.020" (0.510 mm)		
VSONC3...	0...150 psid		0.030" (0.762 mm)		
VSONC4...	0...75 psid		0.040" (1.016 mm)		
VSONC5...	0...100 psid		0.050" (1.270 mm)		
VSONC6...	0...50 psid		0.065" (1.651 mm)		

FLOW CURVE²VSO Typical Air Flow
25 psid

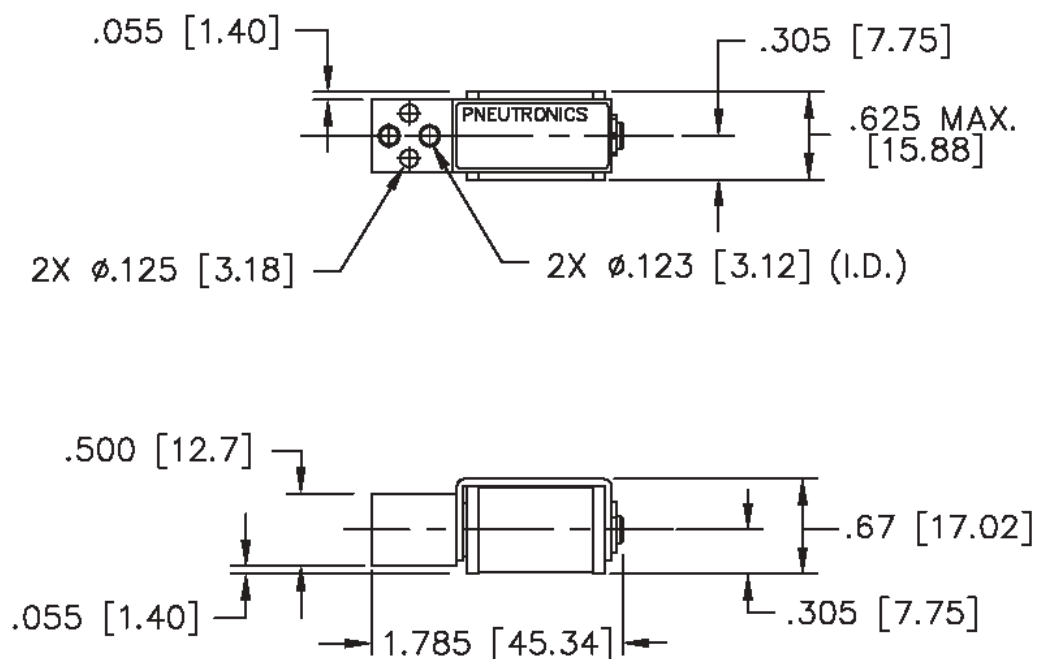
Notes:

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.

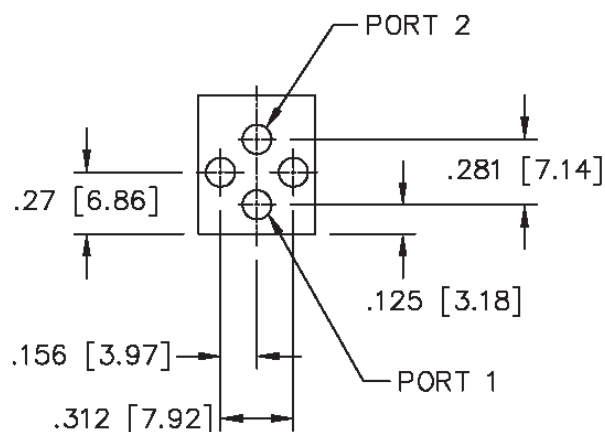
² slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.

OUTLINE DRAWING

Basic valve dimensions



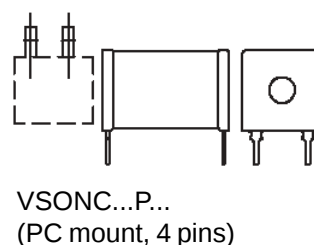
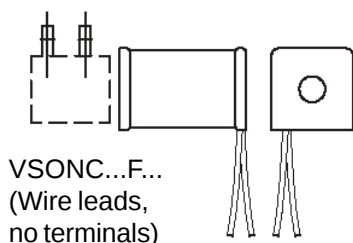
Port and mounting hole diagrams



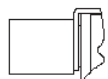
dimensions in inches (mm)

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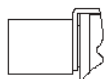
ELECTRICAL INTERFACE OPTIONS



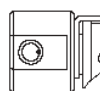
PNEUMATIC INTERFACE OPTIONS



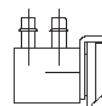
VSONC...0...
(No barbs,
face seal to manifold)



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



VSONC...5...
(10-32 UNF
threaded female)



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

ORDERING INFORMATION

Standard		Model no.		Series	Body series	Elastomer		Coil selection			Electrical interface		Pneumatic interface*			
		Max. pressure	Orifice					Max. voltage*	Resis- tance**	Current***						
Options	VSONC	1:	150 psid	0.010" (0.245 mm)	S	11: Series 11	V: FKM/ brass	A:	5.5 V _{DC}	11 Ω	0.304 A	F: wire leads, 18"	0: manifold mount			
		2:	150 psid	0.020" (0.510 mm)				B:	8 V _{DC}	23 Ω	0.212 A			P: PC board mount, 4 PC pins	1: manifold mount with screens**	
		3:	150 psid	0.030" (0.762 mm)				C:	11.5 V _{DC}	47 Ω	0.152 A					
		4:	75 psid	0.040" (1.016 mm)				D:	13.5 V _{DC}	68 Ω	0.125 A					5: 10-32 UNF threaded female (Series 25)
		5:	100 psid	0.050" (1.270 mm)				E:	20 V _{DC}	136 Ω	0.091 A					
		6:	50 psid	0.065" (1.651 mm)				F:	29 V _{DC}	274 Ω	0.066 A					
					* available in nickel- plated brass only	* this optios will affect price; contact Sensorteknics for details	* max. voltage for continuous full flow, ambient temp. 55°C ** coil resistance for room temp. *** input current for full flow					* Series 11 only except with option 5 ** this option will affect price				
Example: VSONC 1 S 11 V A F 8																

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

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