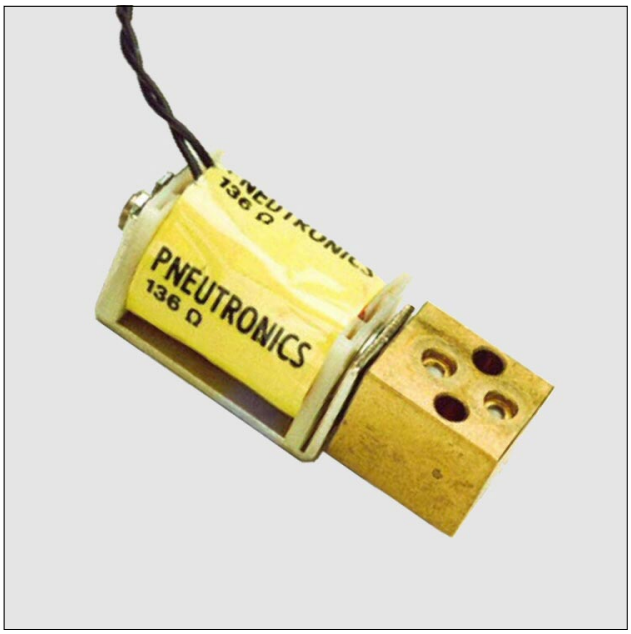
VSO® Low Flow

Normally closed proportional solenoid valve

FEATURES

- 2-way normally closed
- Applications where control is critical or flow is required below 500 sccm
- Serialised performance traceability
- Uses either DC current or pulse width modulation with closed loop feedback to deliver optimal system performance
- Maintains ideal flow through thermal compensation
- Highly repeatable
- Oxygen and analytically clean
- Rated for 10 million life cycles
- RoHS compliant



MEDIA COMPATIBILITY

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

ELECTRICAL

Power	max. 2 W
Voltage	max. 6.5, 8, 12 or 18 V_{DC}
PWM	5-12 KHz recommended

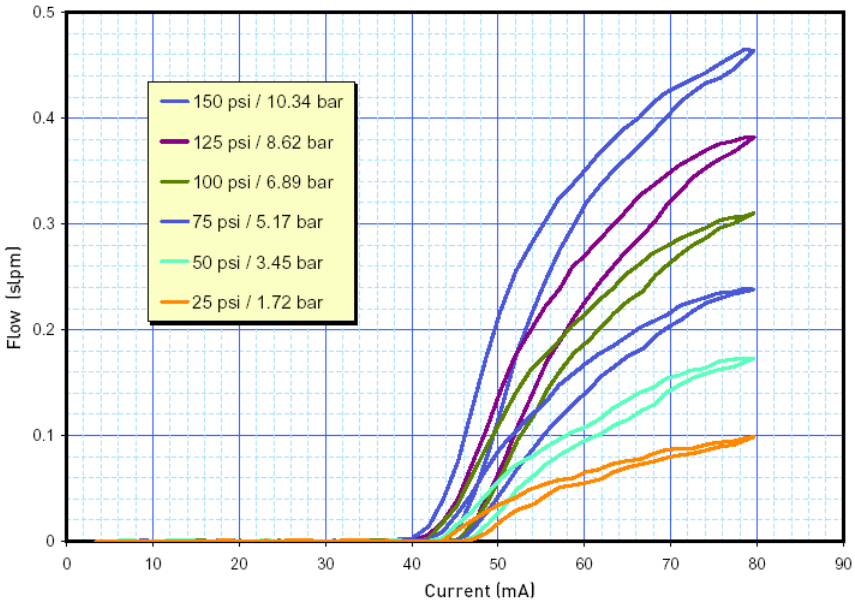
PHYSICAL PROPERTIES

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	manifold mount with 17 µm screens
Weight	63 g (2.2 oz)
Internal volume	0.508 cm^3 (0.031 in^3)
Filtration (recommended)	17 µm
Lubrication	None required

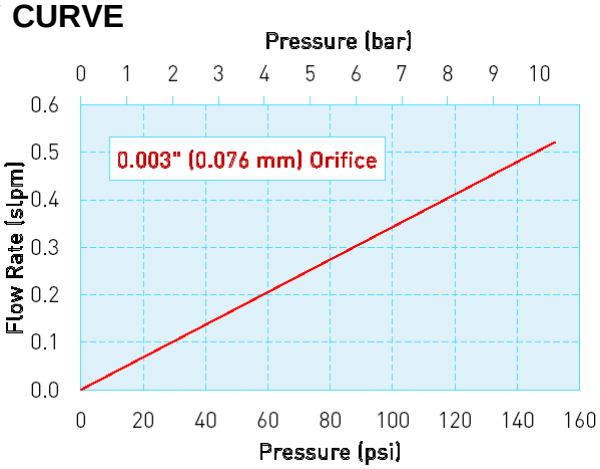
PERFORMANCE CHARACTERISTICS

Part no.	Pressure	Orifice sizes	Leak rate[1]	Response
910000200...	0...150 psid	0.003" (0.076 mm)	≤0.2 sccm of helium (bubble tight)	<15 msec cycling

FLOW CURVES (typical air flow with 12 V_{DC} coil)[2]



PRESSURE VS FLOW CURVE



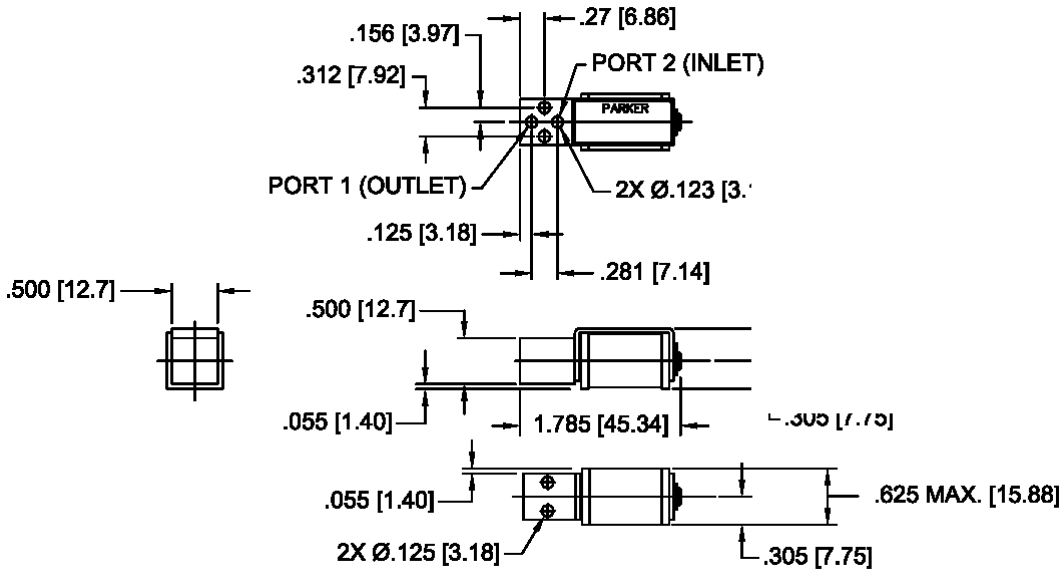
Notes:

[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.

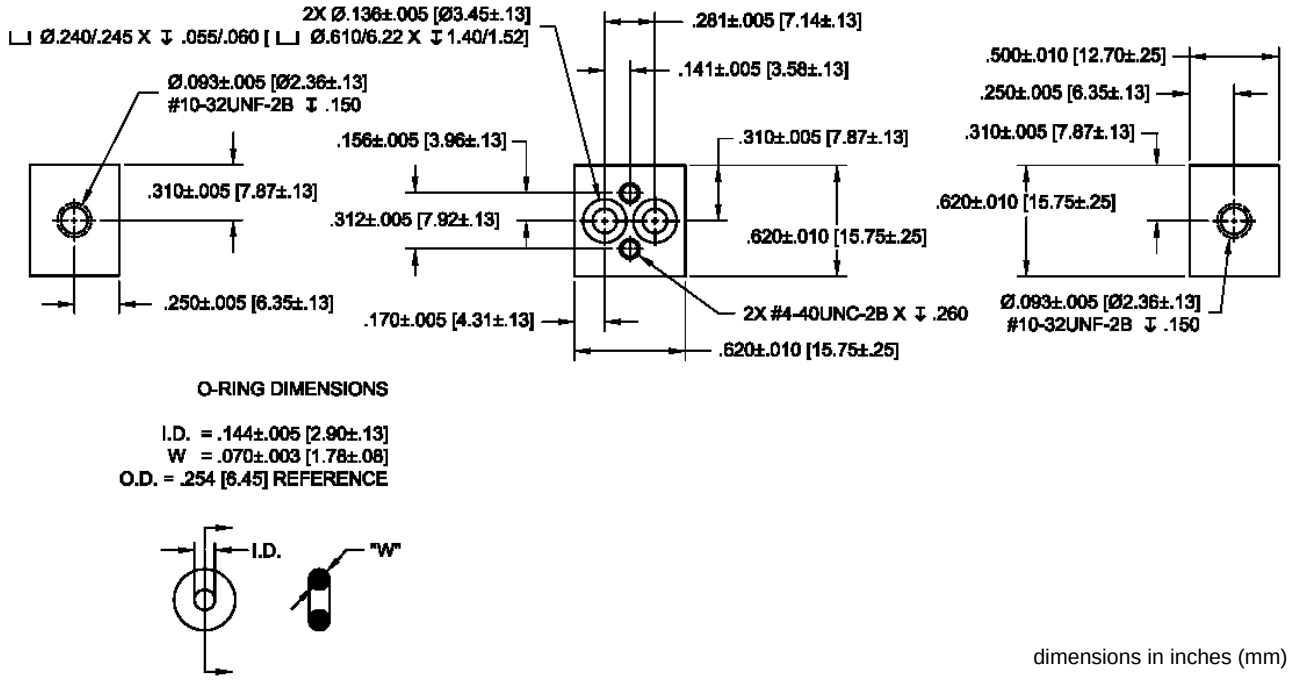
OUTLINE DRAWING

Basic valve dimensions



dimensions in inches (mm)

Manifold & O-ring diamensions & design



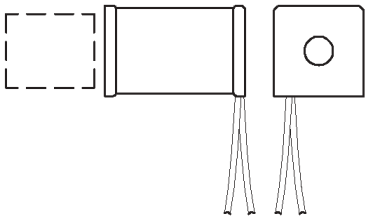
O-RING DIMENSIONS

I.D. = .144±.005 [2.90±.13]
W = .070±.003 [1.78±.08]
O.D. = .254 [6.45] REFERENCE

dimensions in inches (mm)

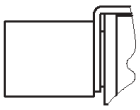
ELECTRICAL INTERFACE

(18 " wire leads,
no terminals)



PNEUMATIC INTERFACE

(No barbs,
face seal to manifold
with screens)



ORDERING INFORMATION

	Series	Model number		Coil selection			
					Max. voltage*	Resistance**	Current***
Options	**910**	**000200**	VSO, low flow, 0.003" (0.076 mm) orifice size	**001**	6.5 V_{DC}	47 Ω	0.130 A
				002	8 V_{DC}	68 Ω	0.115 A
				003	12 V_{DC}	136 Ω	0.080 A
				004	18 V_{DC}	274 Ω	0.060 A
				007	24 V_{DC}	547 Ω	0.043 A
				* max. voltage for continuous full flow, ambient temp. 55°C ** coil resistance for room temp. *** input current for full flow			
Example:	**910**	**000200**		**001**			

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

Accessories (please order separately using the following order numbers)

Order No.	Description
190-007024-002 (FKM)	Manifold mount O-ring