

V² Valve

Value squared switching solenoid valve

FEATURES

- 2-way or 3-way, 2 position valve (NO, NC & Distributor)
- Meets performance characteristics for a minimum of 25 million cycles
- Cost-effective, unique PBT body
- Manifold mount design or molded barbed fittings to fit a range of needs



MEDIA COMPATIBILITY

Non-corrosive gases

WETTED MATERIALS

Body:
PBT (Polybutylene Terephthalate)

Stem base:
360 HO2 brass

All others:
FKM; 430 FR series stainless steel (passivated);
302 series stainless steel; Loctite® 290

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 Barb fittings for 1/8 in I.D. tubing or manifold mount

Weight 34 g (1.2 oz)

Internal volume 0.016 cm³ (nominal)

Filtration (recommended) 40 µm

Lubrication None required

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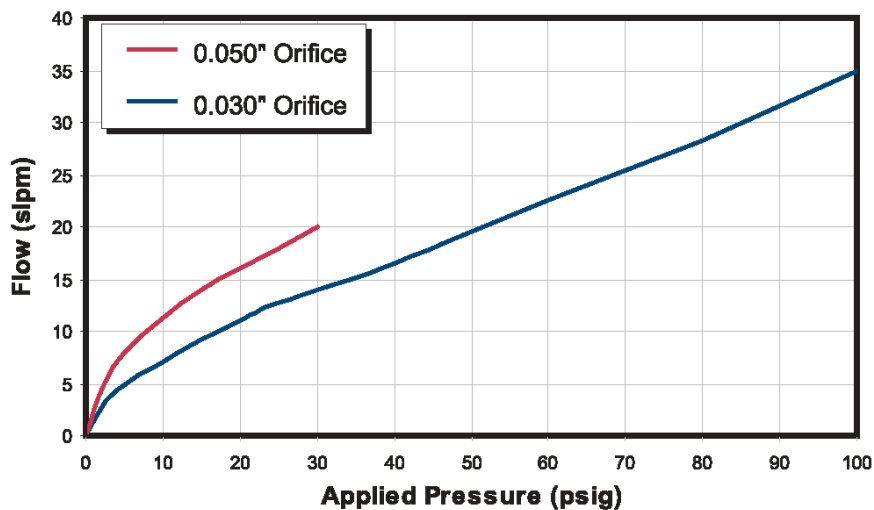
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PERFORMANCE CHARACTERISTICS

Part no.	Pressure	Vacuum	Orifice sizes/ Equivalent C _v ¹	Leak rate ²	Response
V210...	0...100 psig	0...27 "Hg (0...13 psi)	0.030" (0.762 mm)/ 0.017 C _v	≤0.2 sccm	<30 msec cycling (2 Watt)
V213...	0...50 psig				
V214...	0...30 psig		0.050" (1.270 mm)/ 0.035 C _v		<30 msec cycling (2 Watt)
V217...	0...15 psig				
V220...	0...6 psig				

FLOW CURVES (typical air flow)³



Notes:

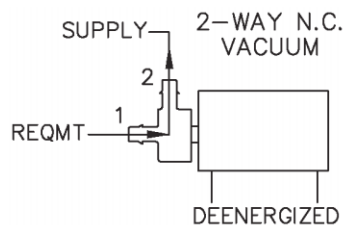
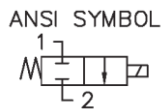
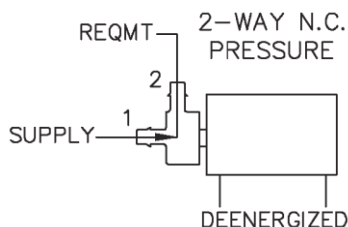
- ¹ The C_v value is the volume flow in US gallons/min under specific flow conditions and describes the relative flow capacity of a valve. If several valves with the same nominal diameter are compared, the valve with the highest C_v value has the best flow dynamics design. The equivalent european measure is the k_v value expressed in m³/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.

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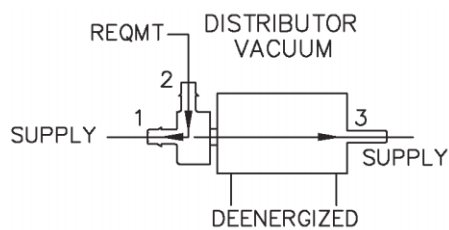
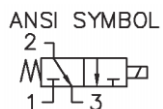
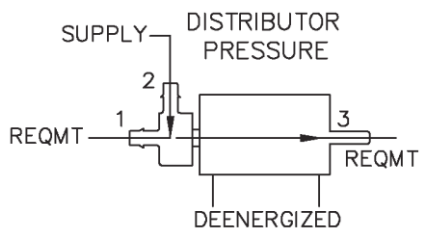
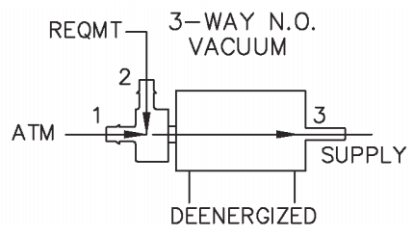
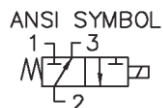
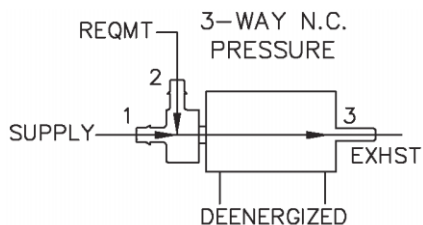
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VALVE TYPE

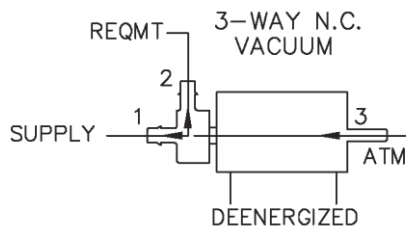
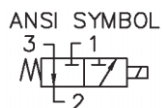
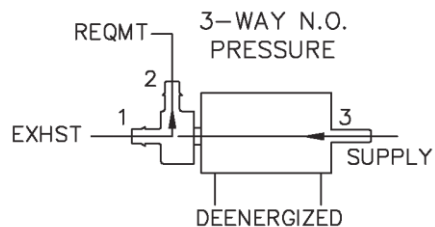
Type 1



Type 3



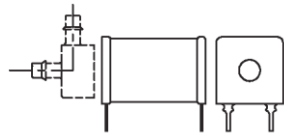
Type 4



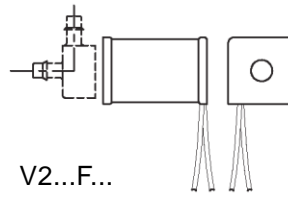
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COIL STYLES

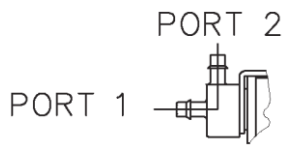


V2...P...
(PC mount, 4 PC pins)

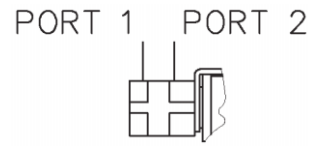


V2...F...
(Wire leads,
no terminals)

BODY STYLES

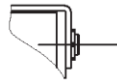


V2...8...
(1/8" I.D. tubing)

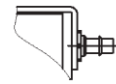


V2...0...
(Manifold mount)

STEM BARB STYLES



V2...0
(Type 1 top seat, plugged)



V2...8
(0.125" top seat, 1/8" I.D. tubing)

ORDERING INFORMATION

Options	Series	Model no.			Type	Material		Voltage	Coil type	Body styles		Topseat bars						
		Max. pressure	Orifice size	Coil wattage		Body	Plunger & seal											
	V2	10:	0...100 psi (0.762 mm)	0.030" (0.762 mm)	2 W	1:	2-way NC	PV:	PBT	FKM	5:	5 V _{DC}	P:	PC mount, 4 PC pins	0:	mani- fold	0:	none (manifold mount)
		13:	0...50 psi (0.762 mm)	0.030" (0.762 mm)	1 W	3:	3-way NC or distributor				12:	12 V _{DC}						
		14:	0...30 psi (1.270 mm)	0.050" (1.270 mm)	2 W						24:	24 V _{DC}	F:	Wire leads, 18"	8:	1/8" barbs	8:	1/8" barbs
		17:	0...15 psi (1.270 mm)	0.050" (1.270 mm)	1 W	4:	3-way NO											
		20:	0...6 psi (1.270 mm)	0.050" (1.270 mm)	0.5 W													

Sample order no:	V2	14		3	PV		12	P		8		8
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Note: Not all combinations might be available. Please contact your nearest Sensortechincs sales representative for further information.

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