


Series 9 Miniature High Speed and Pressure Liquid Dispense Valve

2-Way and 3-Way Solenoid Valve



Series 9 solenoid valves offer outstanding precision control in liquid analysis. Combining high speed, ultra low leak rate, high flow, high pressure and high temperature capability in a small size. This rugged valve operates with extreme repeatability and is constructed of non-corroding, passivated stainless steel. Series 9 coils are rated for continuous duty and are potted to exclude the environment.

Features

- Smallest footprint and highest performance in its class
- High speed response times of less than 6 ms
- 100% tested to leak-tight 1×10^{-7} cc/sec/atm Helium
- Pressures up to 1250 psi (86.2 bar)
- 100% duty cycle in environmental temperatures of up to 221°F (105°C)
- Available with a variety of fittings, orifices, seals, and voltages to match your application
- RoHS compliant 

Typical Applications

- Process Analysis of Liquids
- High Pressure Liquid Control
- Radioactive Liquids in Medical Imaging
- Cooling Circuits

Product Specifications

Physical Properties

Valve Type:	Inert Non-Isolation Valve
Valve Configuration:	2-Way Normally Closed or 3-Way
Media:	Liquids <i>(also capable of handling gasses, for details see the Series 9 Gas datasheet)</i>
Operating Environment:	40 to 221°F (4 to 105°C)
Dimensions:	See pages 4, 5, 6 & 7
Porting (Orifice Dependent):	A-LOK® 1/4 - 28 FNPT compression fittings, VacuSeal
Weight:	3.1 oz (87.9 g) [3-Way, 1/8" NPT Body Option]
Internal Volume (µL):	342.7 to 540.6 (Contact factory for details)

Electrical

Voltage (VDC):	12	24
Power (Watts):	12	12
Current (mA):	1000	500
Resistance (Ohm):	12	48
<i>($\Omega \pm 5\%$ @ 70°F, 21°C)</i>		
Connections:	12" Lead Wires Standard 24 AWG, PTFE Insulated (Custom connectors are available)	

Wetted Materials*

Seals:	FKM or FKM & Vespel
Body:	316 Stainless Steel
All Others:	PTFE, Stainless Steel, FKM
* See Chemical Compatibility Page Consult factory for other options	

Performance Characteristics

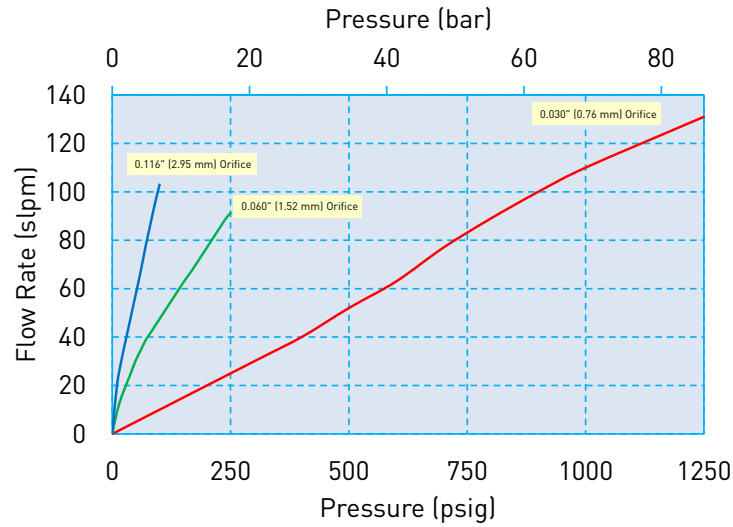
Orifice Diameters/ Operating Pressure:	0.030" (0.76 mm) / 1x10 ⁻⁵ Torr -1250 psig (86.2 bar) 0.060" (1.52 mm) / 1x10 ⁻⁵ Torr - 250 psig (17.2 bar) 0.116" (2.95 mm) / 1x10 ⁻⁵ Torr - 100 psig (6.9 bar)
Proof Pressure:	1.5X rated pressure
Response Time:	<5 ms 0.030" (0.76 mm) <5 ms 0.060" (1.52 mm) <6 ms 0.116" (2.95 mm)
Leak Rate:	1 x 10 ⁻⁷ cc/sec/atm Helium
Recommended Filtration:	40 µm max

Series 9 Miniature High Speed and Pressure Gas Control Valve

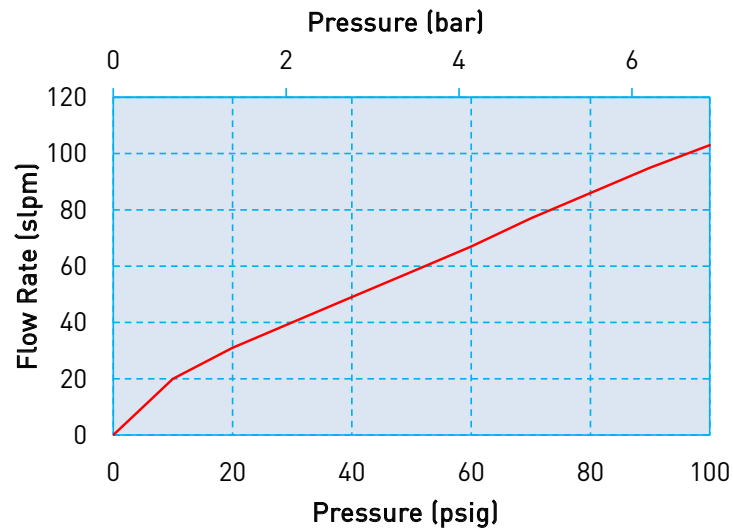
Typical Flow Curve

All Models

(Tested w/air 24° C)

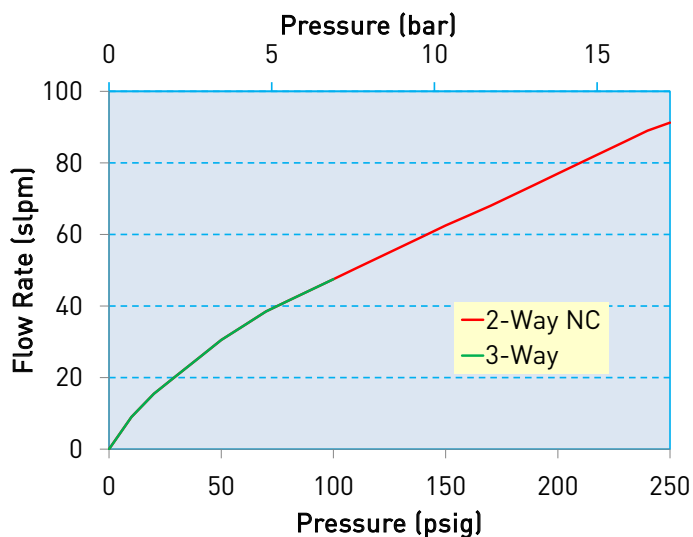


0.030" (0.76 mm) Orifice

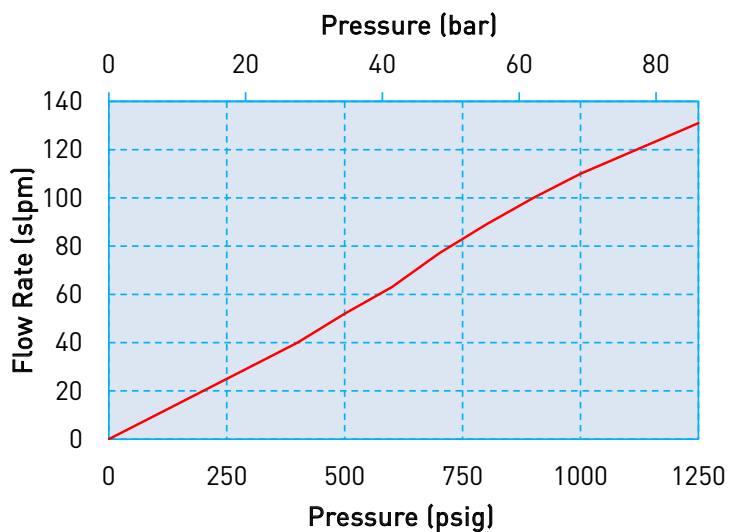


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0.060" (1.52 mm) Orifice



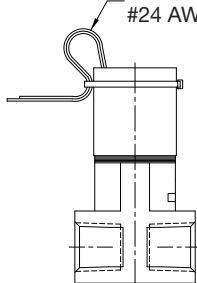
0.116" (2.95 mm) Orifice



Electrical Interface

Wire leads

PTFE INSULATED LEAD WIRES
#24 AWG X 12" [304.8] MIN. LENGTH



UNITS
IN. [mm.]

Custom connections available upon request

