

PROPORTIONAL FLOW CONTROL VALVE



Direct Solenoid Operated Flow Control Valve

Brochure 1273

FUNCTIONAL DESCRIPTION:

The Proportional Flow Control Valve allows infinitely variable setting of the flow of gaseous or liquid fluids. Flow orifice cross section is adjusted according to the electric (voltage or current) input command signal.

The input command signal is typically derived from a potentiometer or process controller. An external **HERION** amplifier is required to convert the input command signal into a proportional solenoid current to control the valve.

APPLICATIONS:

Proportional Flow Control Valves can considerably improve the controlled supply of fluids such as air, neutral gases and light oil. Water applications are not recommended due to the potential for dissolved mineral deposit build-up in the solenoid plunger area.

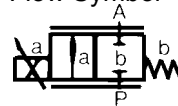
Note: This valve is not intended to be used as a tight shut-off valve.

CHARACTERISTICS:

Construction	Poppet Type Flow Control Valve – direct acting
Protection class with connector installed	IP 65
Mounting Position	Vertical preferred
Flow Direction	Fixed
Fluid	Air, neutral gasses or light oil
Fluid Temperature	15 to 120° F
Filtering	It is recommended that a 30 micron filter be installed upstream of the valve
Materials:	
Housing:	Brass
Internal Parts:	Brass and stainless steel
Seals:	PTFE (Teflon)
Flow factor	CV = 1.3
Hysteresis	3% measured with optimum dither amplitude
Weight	4.0 lb.



Flow Symbol



ELECTRICAL CHARACTERISTICS:

Proportional Solenoid (12 VDC)	Type 7065
Rated Current Range	0 – 1600 mA
Solenoid Resistance	5.2 Ohms at 68° F

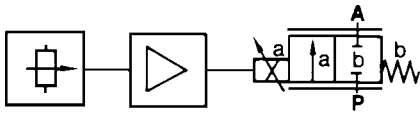
VALVE ORDER INFORMATION:

Nom. Size (mm)	Port Size (NPT)	Max. Inlet Pressure (PSI)	Order No.	
			Valve	Solenoid ⁽¹⁾
6	1/4	60	4081103.	7065
6	1/4	90	4081104.	7065

Notes: (1) Connector is not included with solenoid, see table at right.

ACCESSORIES:

Part Name	Part Numbers	Brochure
Standard Connector		
Cable Clamp	0570275	N-209
1/2" NPT Conduit	0661374	
Connector Amplifier PQ-11	5980085	2961
Potentiometer	5998534	2961
Power Supply	8110599	N-227



Potentiometer (5998534) PQ-11 Amplifier (5980085) Proportional Valve

Fig. 1 Typical Installation

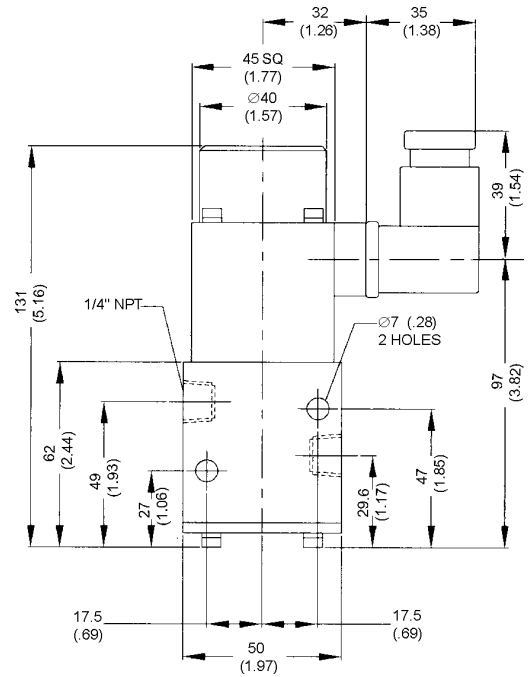


Fig. 2 All dimensions in mm (inches)

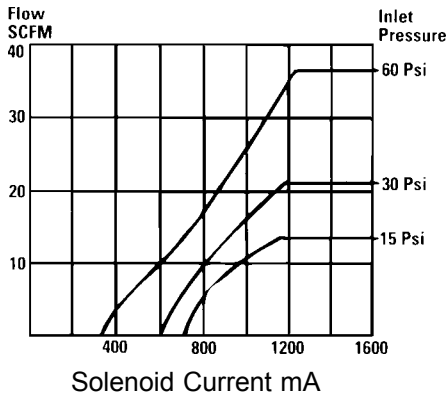


Fig. 3 Flow Curves for Air Valve No. 4081103

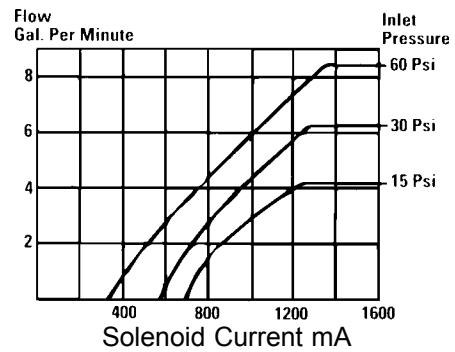


Fig. 4 Flow Curves for Light Oil Valve No. 4081103

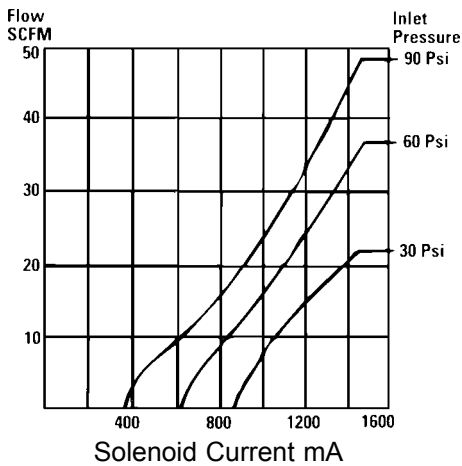


Fig. 5 Flow Curves for Air Valve No. 4081104

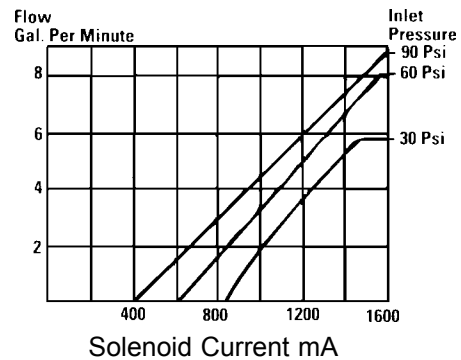


Fig. 6 Flow Curves for Light Oil Valve No. 4081104

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