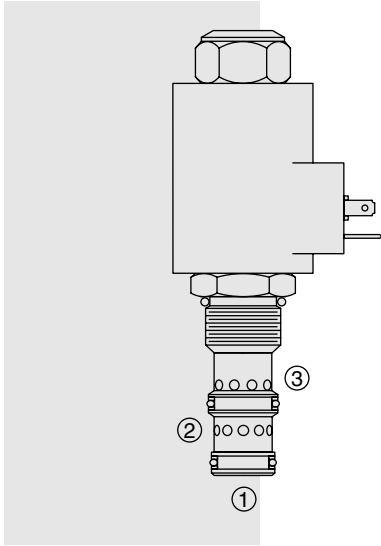


ELECTRO-PROPORTIONAL VALVES—FLOW CONTROLS

PV72-34 Proportional Flow Control Cartridge,



DESCRIPTION

A solenoid operated, electrically-variable, two-way, pressure-compensated, spool-type, normally closed when de-energized, proportional flow control valve with reverse free flow check. It is a restrictive-type 2-way, pressure-compensated flow regulator; port ② is blocked and not used.

OPERATION

When energized the PV72-34 will regulate flow from port ① to port ③ regardless of system working pressure. With an increasing current applied to the solenoid, the PV72-34 will increase output flow. When the pressure at port ③ exceeds the pressure at port ①, the valve will free reverse flow from port ③ to port ①.

Operation of Manual Override:

To Engage: Turn clockwise approximately 1 turn to reach start point. Continue another approximately 5 turns to full shift.

To Disengage: Turn counterclockwise approximately 6 turns to positive stop.

FEATURES

- Excellent linearity and hysteresis characteristics.
- Hardened spool and cage for long life.
- Optional coil voltages and terminations.
- Efficient wet armature construction.

RATINGS

Operating Pressure: Inlet: 240 bar (3500 psi)

Regulated Flow Rate: 0 to 57 lpm (0 to 15 gpm)

Reverse Free Flow Cracking Pressure: 0.7 to 1.0 bar (10 to 15 psi)

Internal Leakage: 0.38 lpm (0.10 gpm) at zero current

Electrical: 2 standard voltage ratings

Coil Voltage	Threshold Current	Max. Control Current
12 VDC	300 ± 100 mA	1500 ± 100 mA
24 VDC	150 ± 50 mA	750 ± 50 mA

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu)

Installation: No restrictions; See page 9.020.1.

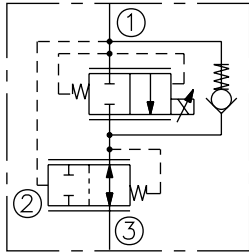
Cavity: VC12-3 (Port ② does not need to be drilled); See page 9.112.1

Cavity Tool: CT12-3X-XX; See page 8.600.1

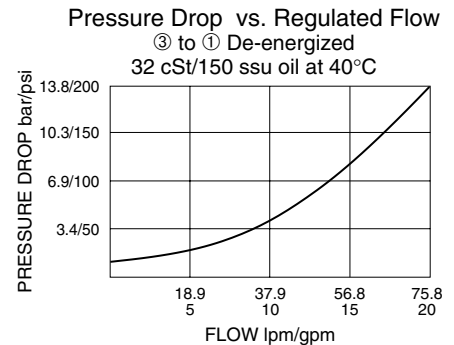
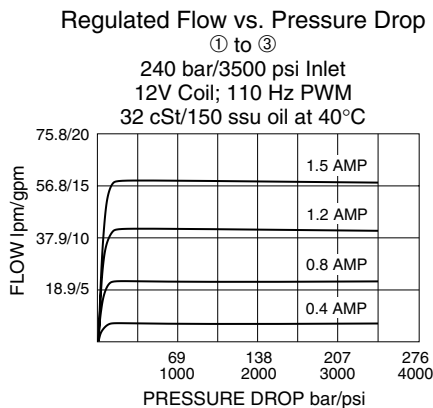
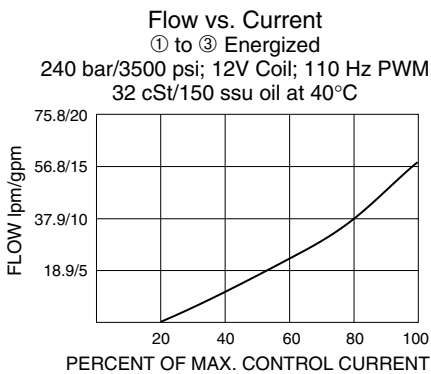
Seal Kit: SK12-3X-MM; See page 8.650.1

SYMBOLS

USASI/ISO:



PERFORMANCE



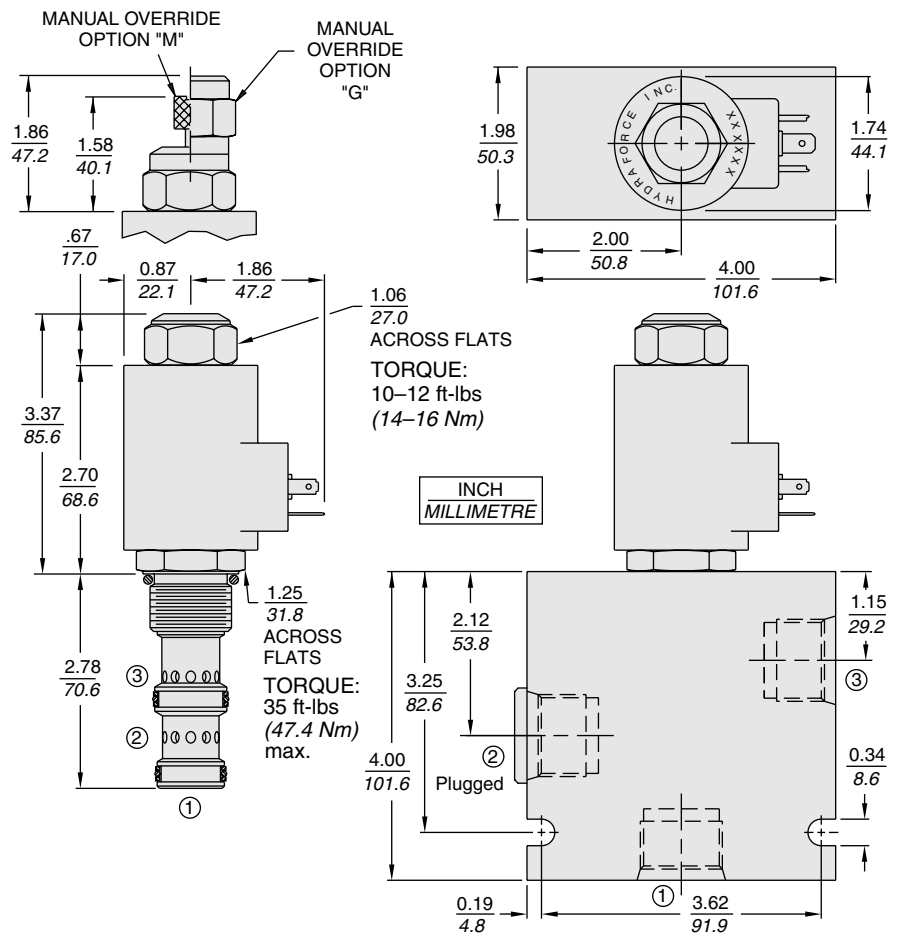
Normally Closed

PV72-34

Recommended Controllers (See Section 3)

Input Sig. w/12V Coil	DIN Coil Mount	PCB Board	Metal Box	DIN Rail Mount
0-5 VDC	7114950	4000046	4000049	4000136
0-10 VDC	4000070	4000141	4000124	4000137
4-20 mA	4000123	4000143	4000130	4000139
PWM	—	4000144	4000133	4000140
w/24V Coil				
0-5 VDC	4000161	4000194	4000174	4000136
0-10 VDC	4000165	4000141	4000182	4000137
4-20 mA	4000169	4000143	4000186	4000139
PWM	—	4000144	4000133	4000140

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.36 kg. (0.8 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body: Weight: 1.09 kg. (2.4 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); See page 8.012.1. Steel and Ductile Iron bodies available; dimensions may differ; consult factory.

PV70 Series Coil: Weight: 0.32 kg. (0.7 lbs.); Unitized thermoplastic encapsulated, Class H high temperature magnet-wire; See page 3.200.7.

Port Plug: For SAE 10 Port: 6103010
For SAE 12 Port: 6103012;
For SAE 16 Port: 6103016;
See page 8.500.1.

TO ORDER

