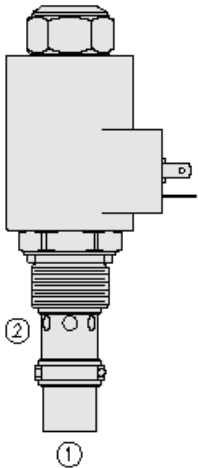




Overview



Description

PV72-21 is a solenoid operated, two-port, pressure compensated, spool type, normally open, proportional flow control valve.

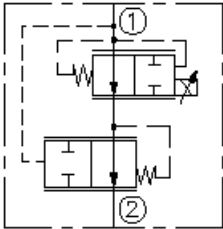
Operation

The valve will regulate flow out of port 2 regardless of system working pressure. The regulated flow is inversely proportional to electric current. With increasing current applied to the solenoid, output flow will decrease.

Features

- Excellent linearity and hysteresis characteristics.
- Hardened spool and cage for long life.
- Efficient wet-armature construction.
- Optional coil voltages and terminations.
- Cartridges voltage interchangeable.
- Unitized molded coil design
- Coil waterproofing standard
- Manual override option

Symbol



Ratings

Pressure Ratings

Pressure rating	240 bar (3500 psi)
Proof pressure	345 bar (5000 psi)
Burst pressure	896 bar (13000 psi)

Flow Ratings

Flow rating	0 to 57 lpm (0 to 15.0 gpm)
Maximum internal leakage	0.38 lpm (0.1 gpm) - Note: Max at 100 current
Hysteresis flow	lpm (gpm)

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117
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Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



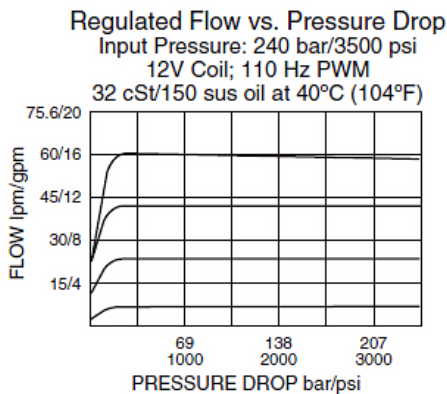
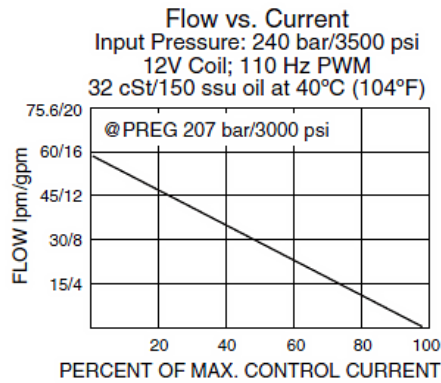
Properties

Unit weight	0.40 kg (0.88 lb)	- Note: Blank option
	0.44 kg (0.98 lb)	- Note: "m" option
	0.55 kg (1.21 lb)	- Note: "g" option
Internal wetted surface area	283 cm ² (43.8 in ²)	- Note: Blank option
	348 cm ² (53.9 in ²)	- Note: "m" option
		- Note: "g" option

Electrical Parameters

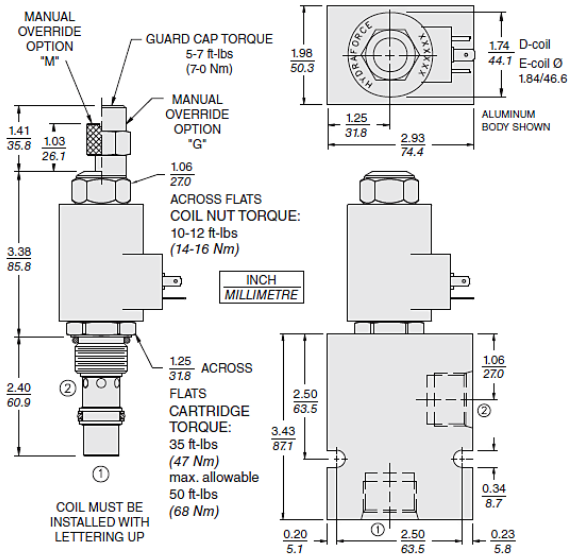
Note	With size 70 e-series and d-series coils	
Maximum control current	1350 mA	- Note: 12 V coil
	750 mA	- Note: 24 V coil
Threshold current	150 mA	- Note: 12 V coil
	75 mA	- Note: 24 V coil
Valve inductance	240 mH	- Note: E-coil 12 V
	200 mH	- Note: D-coil 12 V
	700 mH	- Note: E-coil 24 V
	600 mH	- Note: D-coil 24 V
Dither PWM frequency	100 to 250 Hz	

Performance





Dimensions



Installation Specifications

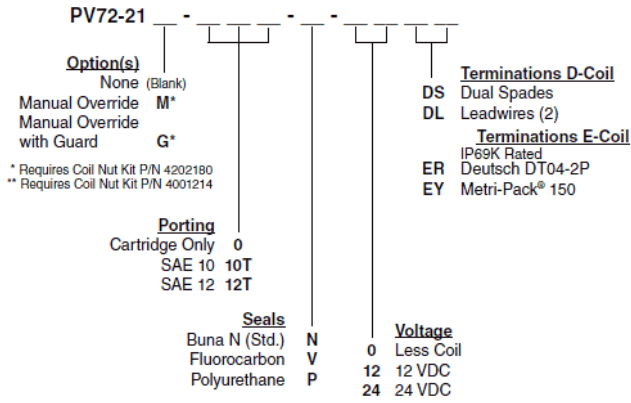
Cavity	VC12-2B
Cartridge installation torque	47 N-m (35 ft-lb)
Coil nut torque	14 to 16 N-m (10 to 12 ft-lb)
Cover cap torque	7 to 9 N-m (5 to 7 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK12-2X-M	- Note: X = seal option
Housings		
Coils		



Order Code



POSITION	CODE	DESCRIPTION
		PV72-21E-H-J-L
E		Manual Override
E	BLANK	NONE
E	G	Variable Position Override, Red Knurled Knob with Cover Cap
E	M	Variable Position Override, Red Knurled Knob
H		Line Body
H	0	No Body
H	10T	Aluminum SAE 10
H	12T	Aluminum SAE 12
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
L		Coil
L	0	No Coil
L	12DG	12 VDC, D-Coil, DIN 43650
L	12DL	12 VDC, D-Coil, Dual Lead Wires
L	12DL/W	12 VDC, D-Coil, Dual Lead Wires with Weatherpak
L	12DS	12 VDC, D-Coil, Dual Spade
L	12ER	12 VDC, E-Coil, Deutsch
L	12EY	12 VDC, E-Coil, Metri-Pack 150
L	24DG	24 VDC, D-Coil, DIN 43650
L	24DL	24 VDC, D-Coil, Dual Lead Wires
L	24DS	24 VDC, D-Coil, Dual Spade
L	24ER	24 VDC, E-Coil, Deutsch