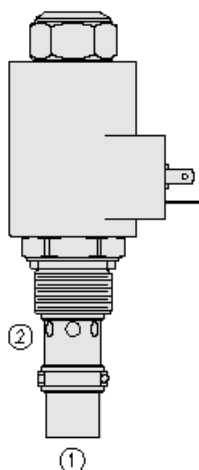




Overview



Description

PV72-20 is a solenoid-operated, two-port, pressure compensated, spool type, normally closed, proportional flow control valve.

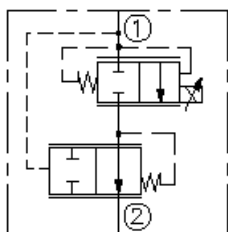
Operation

The valve will regulate flow out of port 2 regardless of system working pressure. With an increasing current applied to the solenoid, output flow will increase.

Features

- Choice of two regulated flow ranges
- Excellent linearity and hysteresis characteristics.
- Hardened spool and cage for long life.
- Efficient wet-armature construction.
- Optional coil voltages and terminations.
- Cartridges are voltage-interchangeable.
- Unitized molded coil design "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 64.4 lpm (0 to 17.0 gpm)	- Note: For "a" flow range;
	0 to 37.9 lpm (0 to 10.0 gpm)	- Note: For "b" flow range
Maximum internal leakage	0.38 lpm (0.1 gpm)	- Note: Max at 0 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



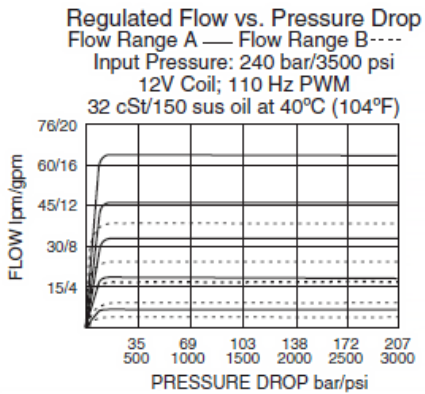
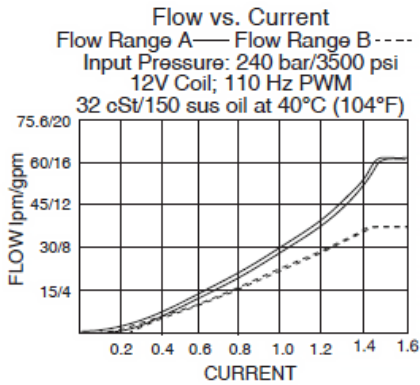
Properties

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 "g" option

Electrical Parameters

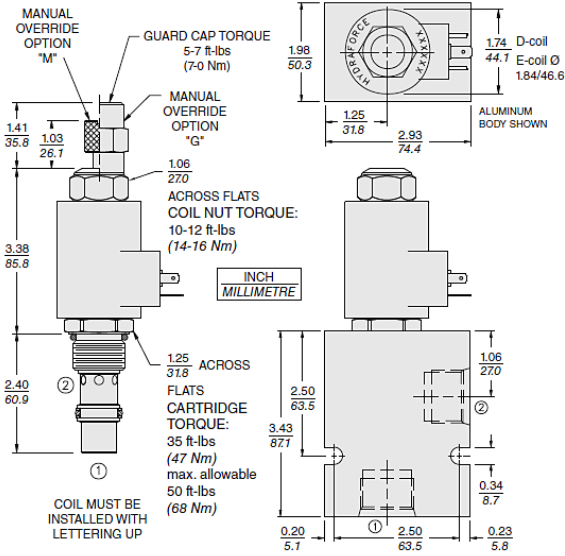
Note	With size 70 e-series and d-series coils	
Maximum control current	1500 mA	- Note: 12 V coil
	750 mA	- Note: 24 V coil
Threshold current	250 mA	- Note: 12 V coil
	125 mA	- Note: 24 V coil
Valve inductance	240 mH	- Note: E-coil 12 V
	200 mH	- Note: D-coil 12 V
	700 mH	- Note: E-coil 24 V
	600 mH	- Note: D-coil 24 V
Dither PWM frequency	100 to 250 Hz	

Performance





Dimensions



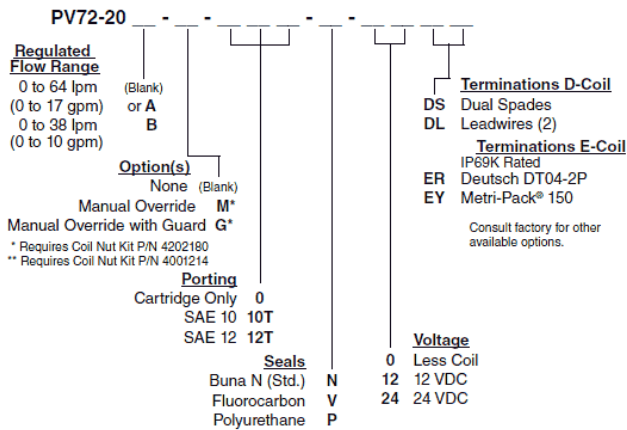
Installation Specifications

Cavity	VC12-2B
Cartridge installation torque	47 N-m (35 ft-lb)
Maximum allowable torque	68 N-m (50 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

Order Code



Model Options

PV72-20DE-H-J-L

D Max Regulated Flow

CODE	DESCRIPTION
A	64.4 lpm (17.0 gpm) Max Regulated Flow
B	37.9 lpm (10.0 gpm) Max Regulated Flow
BLANK	64.4 lpm (17.0 gpm) Max Regulated Flow

E Manual Override



CODE	DESCRIPTION
BLANK	NONE
G	Variable Position Override, Red Knurled Knob with Cover Cap
M	Variable Position Override, Red Knurled Knob

H Line Body

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

L Coil

CODE	DESCRIPTION
0	No Coil
12DG	12 VDC, D-Coil, DIN 43650
12DL	12 VDC, D-Coil, Dual Lead Wires
12DL/W	12 VDC, D-Coil, Dual Lead Wires with Weatherpak
12DS	12 VDC, D-Coil, Dual Spade
12ER	12 VDC, E-Coil, Deutsch
12EY	12 VDC, E-Coil, Metri-Pack 150
24DG	24 VDC, D-Coil, DIN 43650
24DL	24 VDC, D-Coil, Dual Lead Wires
24DS	24 VDC, D-Coil, Dual Spade
24ER	24 VDC, E-Coil, Deutsch