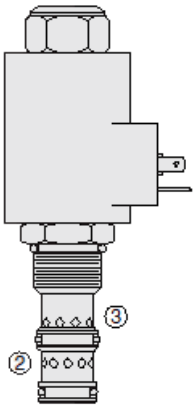




Overview



Description

PV72-30 is a solenoid operated, pressure compensated, spool type, normally closed, proportional priority flow control valve.

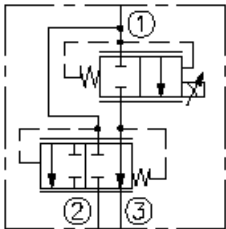
Operation

The valve provides priority regulated flow at port 3 with pressure compensated regulated and bypass flow. The regulated flow is proportional to electric current applied to the solenoid.

Features

- Choice of two regulated flow ranges
- Excellent linearity and hysteresis characteristics.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are 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)	- Note: For "a" flow range;
	0 to 38 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

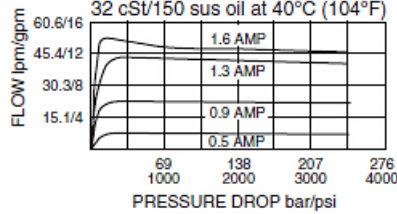
Unit weight	0.42 kg (0.93 lb)	- Note: PV72-30X
	0.47 kg (1.03 lb)	- Note: PV72-30XM
	0.56 kg (1.23 lb)	- Note: PV72-30XG
Internal wetted surface area	339 cm ² (52.5 in ²)	- Note: PV72-30X
	342 cm ² (53.0 in ²)	- Note: PV72-30XM PV72-30XG

Electrical Parameters

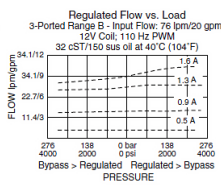
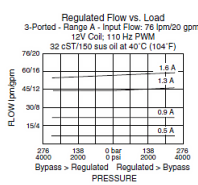
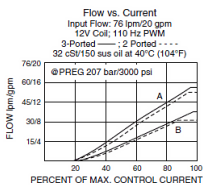
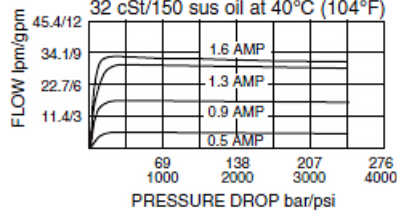
Note	With size 70 e-series and d-series coils	
Maximum control current	1600 mA	- Note: 12 V coil
	800 mA	- Note: 24 V coil
Threshold current	350 mA	- Note: 12 V coil
	175 mA	- Note: 24 V coil
Valve inductance	240 mH	- Note: E-coil 12 V
	200 mH	- Note: D-coil 12 V
	700 mH	- Note: E-coil 24 V
	600 mH	- Note: D-coil 24 V
Dither PWM frequency	100 to 250 Hz	

Performance

Flow vs. Pressure Drop
2-Ported; Flow Range A
240 bar/3500 psi Inlet
12V Coil; 110 Hz PWM
32 cSt/150 sus oil at 40°C (104°F)

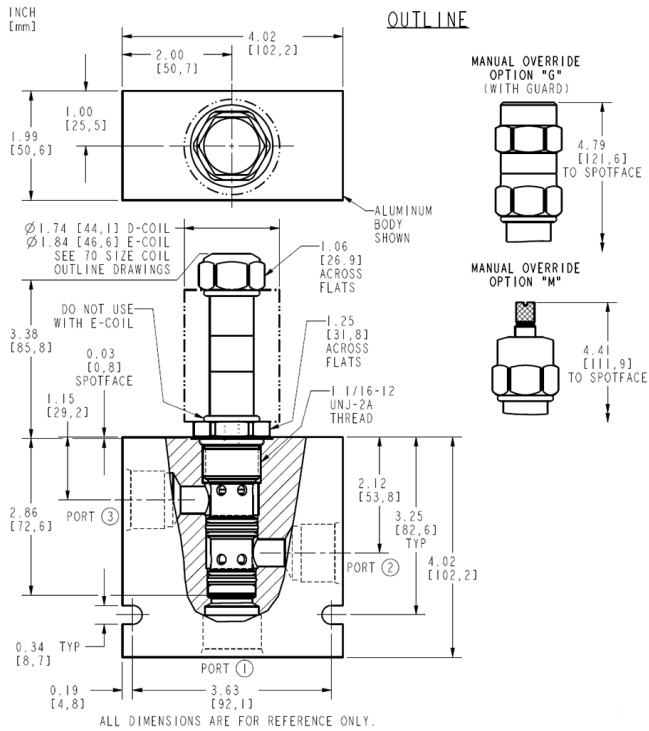


Flow vs. Pressure Drop
2-Ported; Flow Range B
240 bar/3500 psi Inlet
12V Coil; 110 Hz PWM
32 cSt/150 sus oil at 40°C (104°F)





Dimensions



Installation Specifications

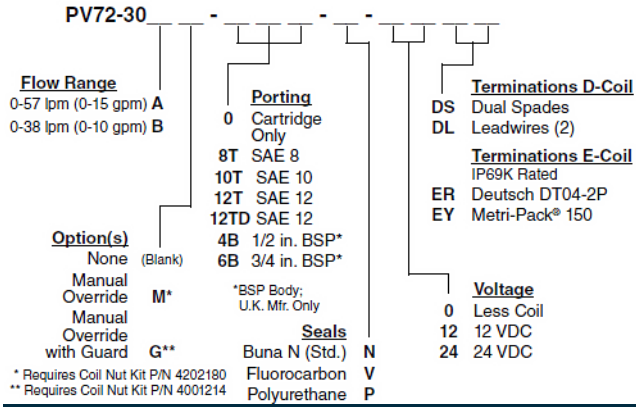
Cavity	VC12-3
Cartridge installation torque	45 to 50 N-m (33 to 37 ft-lb)
Maximum allowable torque	68 N-m (50 ft-lb)
Coil nut torque	14 to 16 N-m (10 to 12 ft-lb)
Cover cap torque	7 to 9 N-m (5 to 7 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK12-3X-MM	- Note: X = seal option
Housings		
Coils		



Order Code



POSITION	CODE	DESCRIPTION
		PV72-30DE-H-JL
D		Max Regulated Flow
D	A	56.8 lpm (15.0 gpm) Max Regulated Flow
D	B	37.9 lpm (10.0 gpm) Max Regulated Flow
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	8T	Aluminum SAE 8
H	10T	Aluminum SAE 10
H	12T	Aluminum SAE 12
H	12TD	Ductile Iron SAE 12
H	6B	Aluminum BSPP 3/4" (6)
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