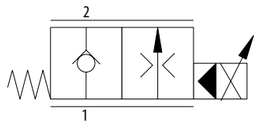
EPV16 - Proportional valve

Proportional flow control, normally closed, poppet
160L/min (42 USgpm) • 280 bar (4000 psi)

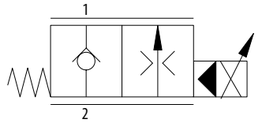
EPV16A



Operation

"A" style (nose in, side out) - In the de-energized position this valve remains closed from port 1 to port 2. When current is applied to the coil, a ontrolled increasing flow will be allowed from port 1 to port 2, in proportion to the current applied.

EPV16B



Operation

"B" style (side in, nose out) - in the de-energized position the valve remains closed from port 2 to port 1. When current is applied to the coil, a controlled increasing flow will be allowed from port 2 to port 1. In both examples free reverse flow is allowed in the opposite direction.

Performance data

Ratings and specifications

Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)	
Typical application pressure (all ports)	280 bar (4000 psi)
Rated flow	0 to 160 L/min (42 USgpm)
Internal leakage	EPV16A 50 cm3/min, max @ 140 bar (2000 psi) EPV16B 10 cm3/min, max @ 140 bar (2000 psi)
Oil viscosity range	10-800 cSt
Nominal supply voltage	12/24 VDC
Threshold current	Adj from 350-600 mA (12 VDC) Adj from 175-250 mA (24 VDC)
Coil current for maximum flow	0.7 amps @ 24 VDC 1.4 amps @ 12 VDC
Recommended PWM frequency	100-200 Hz application dependent, 150 Hz typ
Power consumption	12V-12.8 watts 24V-12.8 watts
Coil resistance	12v-6.5 V/24V-25.0 V
Temperature range	-30° to 90°C (-22° to 194°F)
Cavity	C-16-3S (undercut)
Fluids	Antiwear hydraulic oils with Buna-N seals (standard) Phosphate esters (non-alkyl) with Viton®
Filtration	70-210 bar (1000-3000 psi) Cleanliness code 17/15/12 210+ bar (3000+ psi) Cleanliness code 15/13/11
Housing material (standard)	Aluminum or steel
Typical hysterisis	less than 4% of rated current @ 10 bar pressure drop-pulse width modulated (PWM)
Weight cartridge only	1 kg (2.2 lbs)
Seal kit	02-154069 (Buna-N)

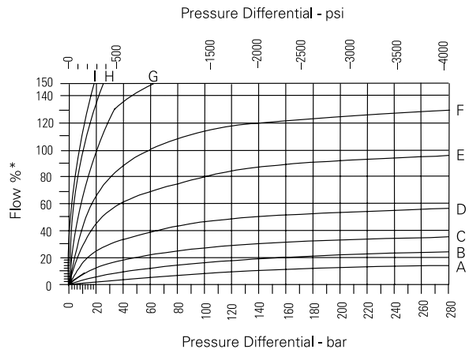
Viton is a registered trademark of E.I. DuPont

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

EPV16 - Proportional valve

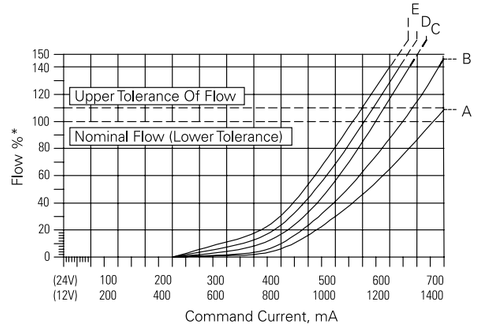
Proportional flow control, normally closed, poppet
160L/min (42 USgpm) • 280 bar (4000 psi)

Pressure drop curves



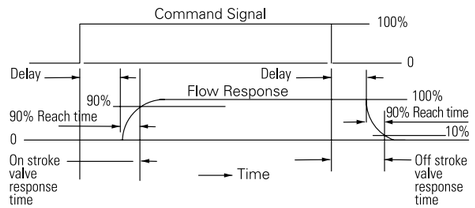
* Flow interims of % for each poppet size

Command current	12 V	24V
A-	600 mA	300mA
B-	700 mA	350mA
C-	800 mA	400mA
D-	900 mA	450mA
E-	1000 mA	500mA
F-	1100 mA	550mA
G-	1200 mA	600mA
H-	1300 mA	650mA
I-	1400 mA	700mA



* Flow interims of % for each poppet size

Pressure differential		
A-	10 bar1	50 psi
B-	20 bar	300 psi
C-	50 bar	700 psi
D-	100 bar	1500 psi
E-	200 bar	3000 psi



Pressure drop @ 120 L/min (30 USgpm)		
Pressure drop DP	On stroke Delay/reach 90%	Off stroke delay/ reach 90%
20 bar (290 psi)	24 ms/35 ms	5 ms/15 ms
100 bar (1450 psi)	24 ms/17 ms	5 ms/7 ms

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