Proportional Valves

ESV1-10-O

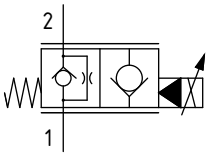
Proportional Flow Control Valve, Poppet Type, Normally Open, Pilot Operated, Non-Compensated

210 bar [3000 psi] • 70 l/min [18.5 US gpm]

DESCRIPTION AND OPERATION

This is a 2-way, poppet type, normally open, pilot operated non compensated proportional valve. In the de-energized condition, flow passes from port 2 to 1 but is restricted from port 1 to 2. Energizing the coil will proportionally push the poppet towards the seat closing port 2 to 1, while allowing free flow from port 1 to 2. Used in conjunction with a compensator, the valve will act as the control orifice for a pressure compensated flow control.

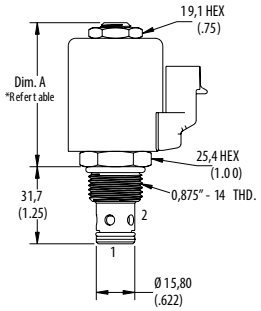
SCHEMATIC



DIMENSIONS

mm [in]

Coil Nut Torque
9-13 Nm (7-10 ft lbs)



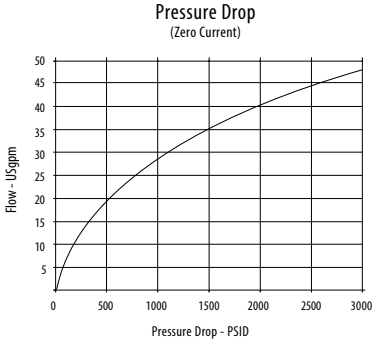
Installation torque
A - 47-54 Nm [35-40 ft. lbs]

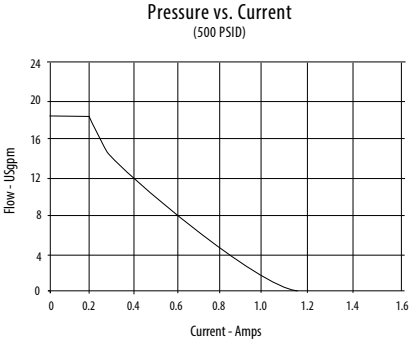
PERFORMANCE DATA

Rated pressure*	**210 bar [3000 psi]**
Rated flow @ 35 bar [500 psi]	**70 l/min [18.5 US gpm]**
Leakage	5 drops/min max @ 3000 psi
Recommended PWM frequency	120 Hz
Maximum Hysteresis	15%
Maximum control current	1000-1200 mA [12 VDC coil] 500-600 mA [24 VDC coil]
Coil Options	J series
Weight	0.13 kg [0.28 lb]
Cavity	SDC10-2

*Rated pressure based on NFPA fatigue test standards (at 1 million cycles)

PERFORMANCE CURVES





MODEL CODE

ESV1 - 10 - V - C - M - A - 2G - 12D - G - J

Seal Option

Code	Seal kit
Omit - Buna - N	566086
V - Viton	566086

Manual Override Option

Omit - No manual override
M -Knob type

Housing Material

Omit - No housing
A - Aluminium

Housing

Code	Ports	Aluminium
0	No housing	
2G	1/4" BSP	02-160727
3G	3/8" BSP	02-160728
4T	#4 SAE	02-150730
6T	#6 SAE	02-160731
8T	#8 SAE	02-160732

* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].
* Additional housings available

Coil series

Omit- No coil
J- J series, 23W

Connector Type

Omit- No coil
G- ISO 4400 DIN 43650
Q-Spade terminals
W-Flying lead
N-Deutsch (DC only)
Y-Amp JR (DC only)
D-Metripack 150 male (DC only)
J-Metripack 280 male (DC only)

Coil Voltage

00 - No coil, nut included (p/n 565558)
12D - 12VDC
24D - 24VDC