

Proportional Valves

ESV1-10-C

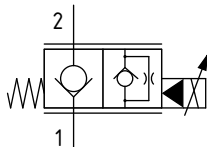
Proportional Flow Control Valve, Poppet Type, Normally Closed, Pilot Operated, Non-Compensated

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

DESCRIPTION AND OPERATION

This is a 2-way, poppet type, normally closed, pilot operated non-compensated proportional valve. In the de-energized condition, flow is blocked from port 2 to 1 but free flow from port 1 to 2. Energizing the coil will proportionally lift the poppet off its seat opening port 2 to 1, while flow from port 1 to 2 will remain restricted. Used in conjunction with a compensator, the valve will act as the control orifice for a pressure compensated flow control. This valve is available with an optional manual override.

SCHEMATIC



PERFORMANCE DATA

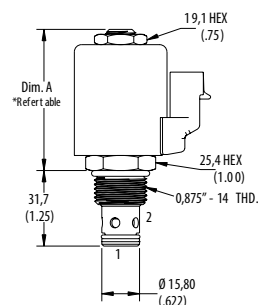
Rated pressure*	210 bar [3000 psi]
Rated flow @ 35 bar [500 psi]	70 l/min [18.5 US gpm]
Leakage	5 drops/min max @ 210 bar [3000 psi]
Recommended PWM frequency	120 Hz
Maximum Hysteresis	15%
Maximum control current	900-1000 mA [12 VDC coil] 450-500 mA [24 VDC coil]
Coil Options	J series
Weight	0.13 kg [0.28 lb]
Cavity	SDC10-2

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

DIMENSIONS

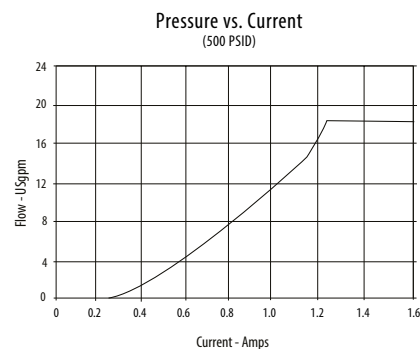
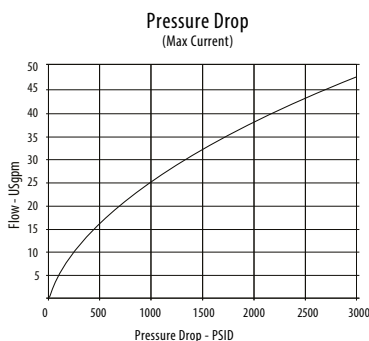
mm [in]

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



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

PERFORMANCE CURVES



MODEL CODE

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

Seal Option

Code	Seal kit
Omit - Buna - N	565803
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

* Aluminium bodies are to be used for pressures less than 210 bar [3000 psi].

* Additional housings available

Coil series

Omit - No coil
J - J series, 20W

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

0D - No coil, nut included (p/n 565558)
12D - 12VDC
24D - 24VDC