

# Proportional Valves

## ESV1-8-C

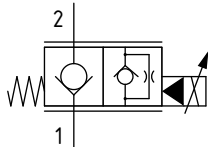
Proportional Flow Control Valve, Poppet Type, Normally Closed, Pilot Operated, Non-Compensated

210 bar [3000 psi] • 32 l/min [8.4 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]	32 l/min [8.4 US gpm]
Leakage	5 drops/min max @ 210 bar [3000 psi]
Recommended PWM frequency	120 Hz
Maximum Hysteresis	15%
Maximum control current	1350-1450 mA [12 VDC coil] 675-725 mA [24 VDC coil]
Coil Options	S series
Weight	0.11 kg [0.24 lb]
Cavity	SDC08-2

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

### MODEL CODE

ESV1 - 8 - V - C - M - A - 2G - 12D - G - S

#### Seal Option

Code	Seal kit
Omit - Buna - N	02-165875
V - Viton	02-165877

#### 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

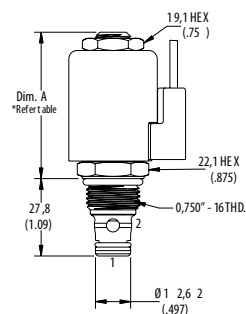
\* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].

\* Additional housings available

### DIMENSIONS

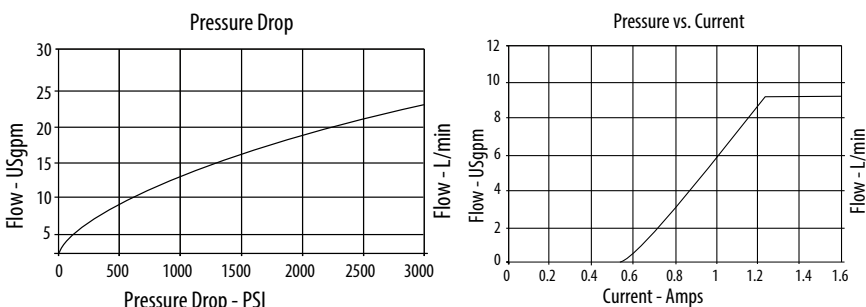
mm [in]

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



Installation torque  
A - 34-41 Nm [25-30 ft. lbs]

### PERFORMANCE CURVES



#### Coil series

Omit - No coil  
S - S Series, 20 W

#### 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