

# Proportional Valves

## ESV1-8-0

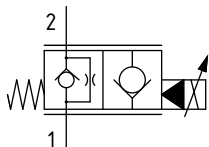
Proportional Flow Control Valve, Poppet Type, Normally Open, Pilot Operated, Non-Compensated

210 bar [3000 psi] • 32 l/min [8.4 US gpm]

### DESCRIPTION AND OPERATION

This is a 2-way, poppet type, normally 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



### 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 @ 210 bar [3000 psi]
Recommended PWM frequency	120 Hz
Maximum Hysteresis	15%
Maximum control current	1100-1250 mA [12 VDC coil] 500-625 mA [24 VDC coil]
Coil Options	S series
Weight	0.11 kg [0.24 lb]
Cavity	SDC08-2

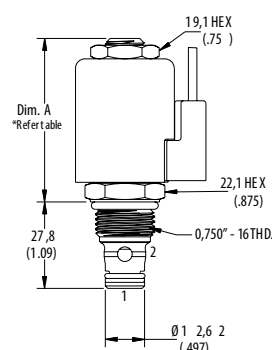
\*Rated pressure based on NFPA fatigue test standards (at 1 million cycles)

### DIMENSIONS

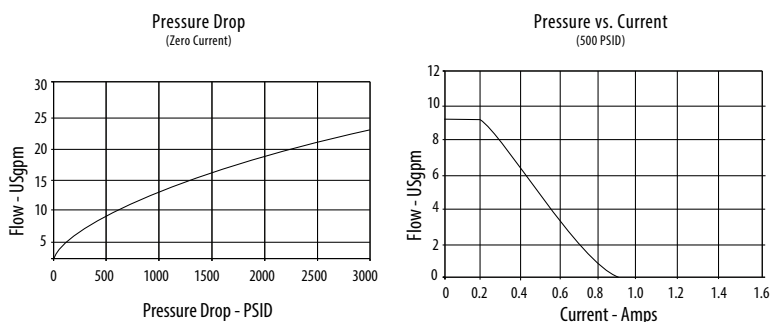
mm [in]

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

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



### PERFORMANCE CURVES



### MODEL CODE

**ESV1 - 8 - V - O - M - A - 2G - 12D - G - S**

#### Seal Option

Code	Seal kit
Omit	Buna - N 9900171-000
V	Viton 9900172-000

#### 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  
S - S 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

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