

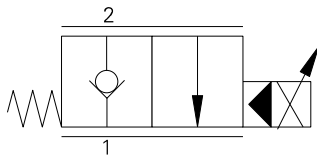
# ESV1-10-C - Proportional valve

www: [www.salushydraulics.pl](http://www.salushydraulics.pl)  
 e-mail: [pl@salushydraulics.pl](mailto:pl@salushydraulics.pl)  
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Proportional flow control, normally closed, poppet  
 Up to 70 L/min (18.5 USgpm) • 210 bar (3000 psi)

Eaton ESV1-10-0

B



## Operation

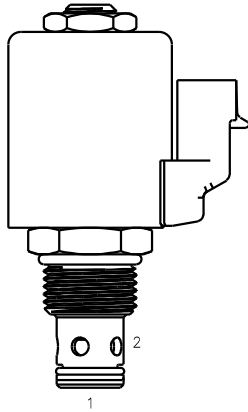
In the de-energized position, this valve blocks flow from port 2 to port 1 and free flow is allowed from port 1 to port 2.

In the energized position, flow from port 1 to port 2 is restricted while free flow is allowed from port 2 to port 1. The valve flow is proportional to the current applied to the coil.

## Features

Hardened and ground working parts to give long life and very low leakage. IP69K Tough coil compatibility, continuously rated. Compact design with low pressure drop.

## Profile view



## 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	210 bar (3000 psi)
Cartridge endurance rating	1 million cycles
Cartridge fatigue pressure rating (NFPA/T2.6.1 R2-2000)	210 bar (3000 psi)
Rated flow	@ 500 psid, 18.5 gpm min, 19.4 gpm nom
Leakage (fully closed)	5 drops/min max @ 3000 psi
Nominal supply voltage	12/24 VDC
Current to open valve	900-1000 mA (12V coil), 450-500 mA (24V coil)
Temperature range	-30° to 90°C (-22° to 194°F)
Maximum oil temperature	120°C (248°F)
Maximum internal oil temperature	200°C (392°F)
Cavity	C-10-2
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness code 18/16/13
Housing material (standard)	Aluminum
Hysteresis	1 USgpm with dither
Weight cartridge only	.13 kg (.28 lbs)
Seal kit	0565803 (Buna-N), 0566086 (Viton®)

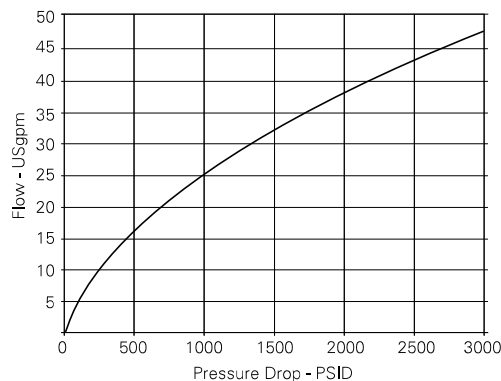
Viton is a registered trademark of E.I. DuPont

## Description

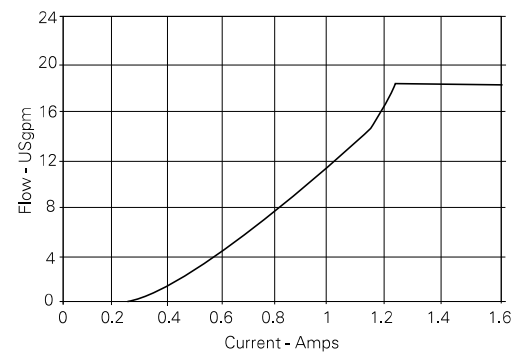
This is a 2 way 2 position, pilot operated poppet type, normally closed, proportional flow control screw in cartridge valve. Ideal for lowering circuits or in conjunction with pressure compensators to provide proportional flow control to any actuator.

## Pressure drop curves

Pressure Drop At Max Poppet Opening



Flow vs. Current at 500 PSID

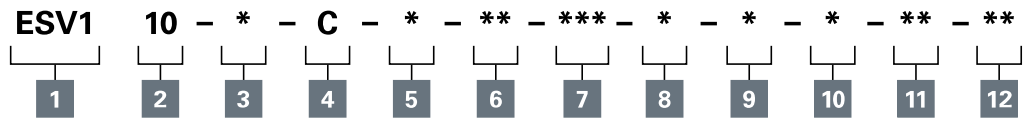


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# ESV1-10-C - Proportional valve

Proportional flow control, normally closed, poppet  
Up to 70 L/min (18.5 USgpm) • 210 bar (3000 psi)

## Model code



### 1 Function

ESV1 - Proportional flow control

### 2 Size

10 - 10 size

### 3 Seal material

Blank - Buna-N  
V - Viton

### 4 Style

C - Normally closed

### 5 Housing material

Blank - Cartridge only  
A - Aluminum

### 6 Port size

Code	Port size	Housing number
Aluminium		
0	Cartridge only	
3B	3/8" BSPP	02-175462
6T	SAE 6	566151
3G	3/8" BSPP	876703
6H	SAE 6	876700
8H	SAE 8	876701

See section J for housing details.

### 7 Coil voltage

0 - No coil  
12D - 12VDC  
24D - 24VDC

### 8 Type of power

Blank - No coil  
D - DC w/o diode  
B - DC w/o diode

### 9 Connector type

Blank - No coil  
G - ISO 4400 DIN 43650  
Q - Spade Terminals  
W - Flying Lead  
N - Deutsch (DC only)  
Y - Amp JR (DC only)  
P - Conduit

For coil part numbers and dimensions see section C.

### 10 Coil series

Blank - No coil  
J - J Series, 20 W

For coil part numbers and dimensions see section C.

### 11 Coil special features

Blank - No coil  
00 - No special feature

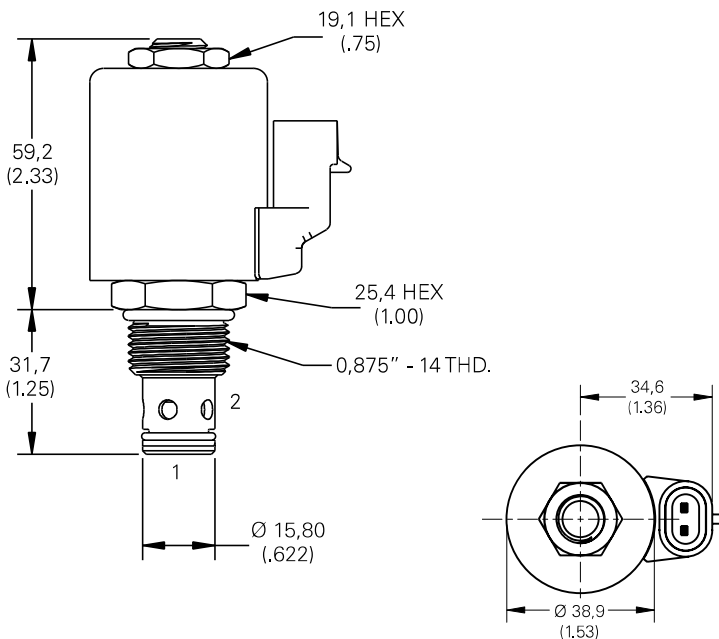
### 12 Valve special features

Blank - None

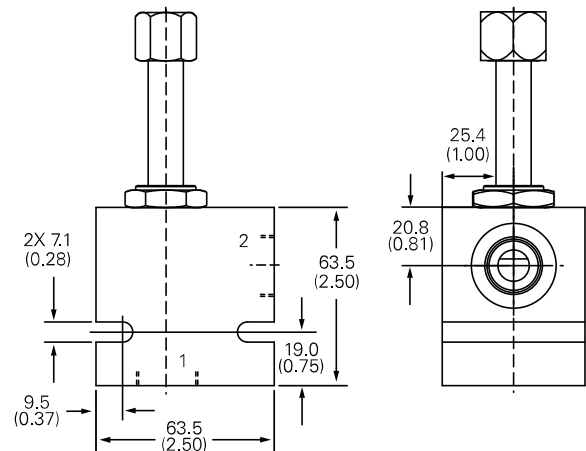
## Dimensions

mm (inch)

### Cartridge only



## Installation drawing



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