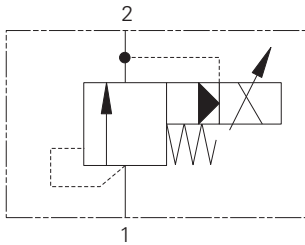


# ERV1-10 - Proportional Valve

Proportional relief, spool

3.8 - 6.0 L/min (1 - 15 USgpm) • 240 bar (3500 psi)

B



## Operation

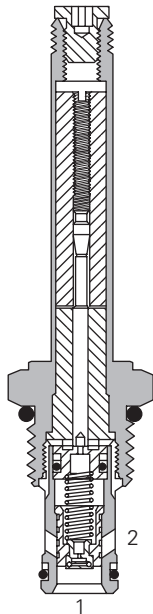
This valve remains closed between port 1 and 2 until the predetermined pressure setting has been reached

at port 1, overcoming the electrical force and opening the spool to allow flow from port 1 to port 2.

## Features

Hardened and ground components for accurate consistent control and a long life. Pilot style to give accurate pressure control over varying flows. IP69K Tough coil compatibility continuously rated.

## Sectional View



## Performance Data

### Ratings and Specifications

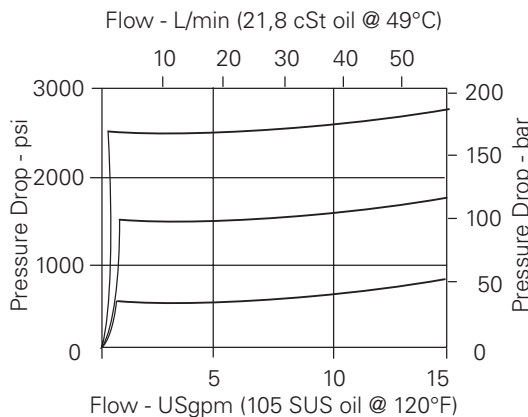
Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49°C (120°F)

Typical application pressure (all ports)	2-240 bar (30-3500 psi)
Cartridge fatigue pressure (infinite life)	240 bar (3500 psi)
Rated flow	3.8-60,0 L/min (1-15 USgpm)
Temperature range	-40° to 120°C (-40° to 248°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
Weight including coil	0,44 kg (.98 lbs)
Seal kit	565803 (Buna-N), 565086 (Viton <sup>®</sup> )

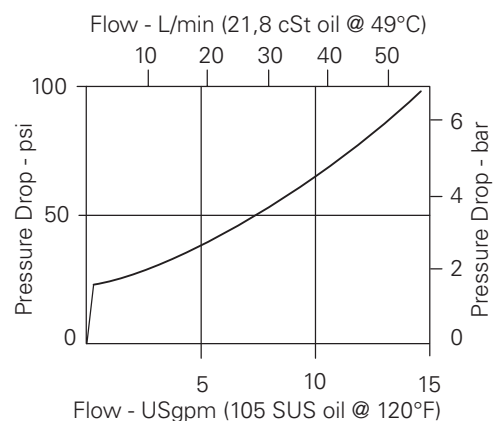
Viton is a registered trademark of E.I. DuPont

## Pressure Drop Curves

### Pressure override, energized



### Pressure override, de-energized



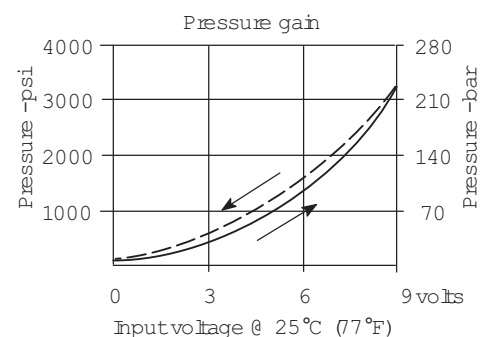
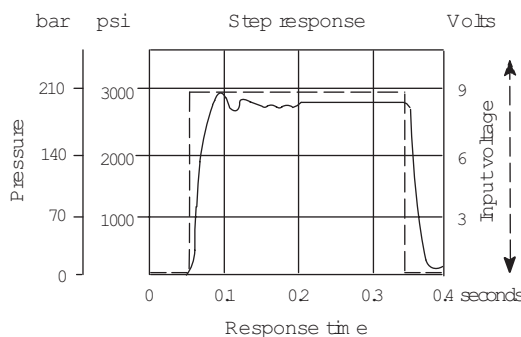
## Description

This is a proportional internally pilot operated screw in cartridge relief valve. Good control over large flows for the physical size of the cartridge. Ideal for the control of pressure under varying flow conditions.

## Performance Curves

Zero outlet pressure

### Cartridges only



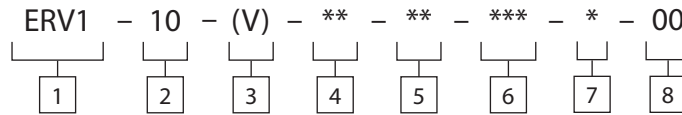
Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# ERV1-10 - Proportional Valve

Proportional relief, spool

3.8 - 6.0 L/min (1 - 15 USgpm) • 240 bar (3500 psi)

## Model Code



**1** Function  
ERV1 - Proportional relief valve

**2** Size  
10 - 10 size

**3** Seal Material  
Blank - Buna-N  
V - Viton®

**4** Maximum Pressure  
Customer to specify settings in increments of 7 bar (100 psi) and coded in hundreds of psi within the 35-210 bar range (500-3000 psi) range.  
Example: 5-35,0 (500 psi)

**5** Port Size

Code	Port Size	Housing Number
Aluminum Single		
0	Cartridge only	
6T	SAE 6	566151*
2G	1/4" BSPP	876702*
3G	3/8" BSPP	876703
6H	SAE 6	876700
8H	SAE 8	876701

\*Light duty housing.  
See section J for housing details.

**6** Voltage Rating

00 - No coil	*Optional arc suppression diode. Note: This valve uses the standard J series coils, see section C for coil part numbers and specifications.
12D - 12VDC	
24D - 24VDC	
12B - 12VDC/w diode*	
24B - 24VDC/w diode*	

**7** Connector Types

Blank - No coil  
G - DIN 43650  
Q - Spade Terminals  
W - Flying Lead  
N - Deutsch  
Y - Amp JR

For coil part numbers and dimensions see section C.

**8** Special Features

00 - None  
Only required if valve has special features, omitted if "00."

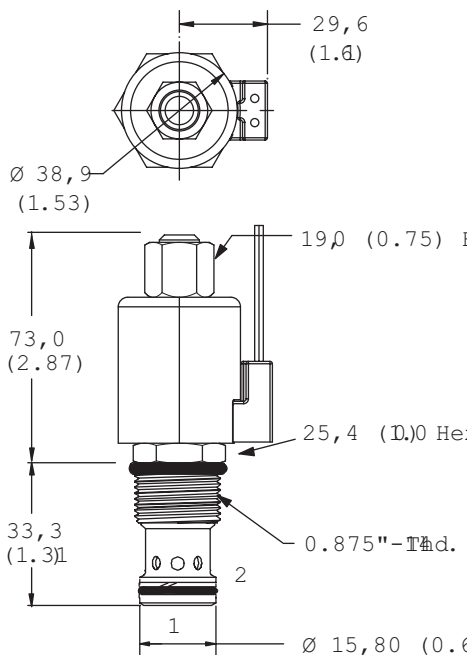
## Dimensions

mm (inch)

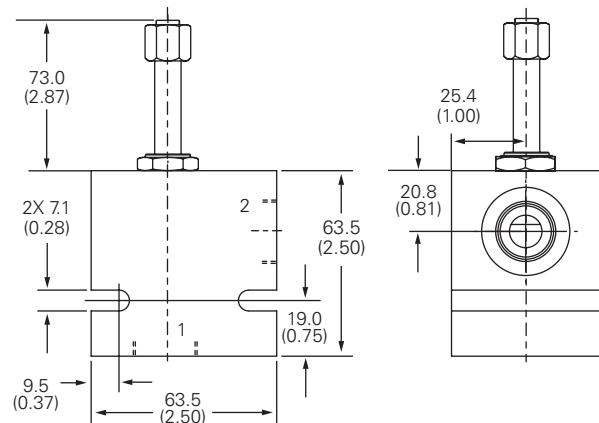
Torque cartridge in aluminum housing 47-54 Nm (35-40 ft lbs)

## Cartridge Only

Valve is shown with "W" coil.



## Installation Drawing



**WARNING**  
Maintain 5-8 Nm (4-6 ft lbs) maximum torque on valve tube nut. Over tightening may cause valve failure.