

# Proportional Valves

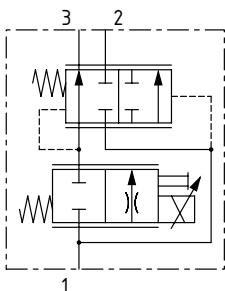
## EFV2-12-C

Proportional Flow Control Valve, Normally Closed, Priority Type, Pressure Compensated  
**210 bar [3000 psi] • 57 l/min [15 US gpm]**

### DESCRIPTION AND OPERATION

This is a 3-way, spool type, normally closed, priority type, pressure compensated proportional flow control valve. In the de-energized condition, flow is blocked from port 1 to the priority port 3 and all flow passes from port 1 to 2. Energizing the coil will proportionally move the spool, opening a variable orifice from port 1 to 3, while excess flow passes to port 2. An internal compensating spool ensures that the output flow at port 3 remains constant, regardless of changes in differential pressure between port 1 and 3 or pressure at the bypass port 2. Increasing the current to the coil will increase the priority outlet flow.

### SCHEMATIC

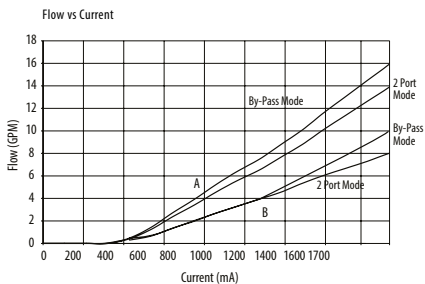
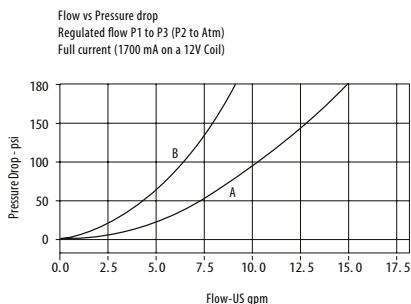
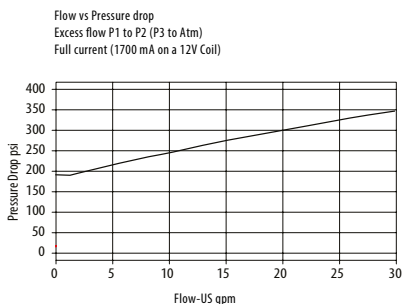


### PERFORMANCE DATA

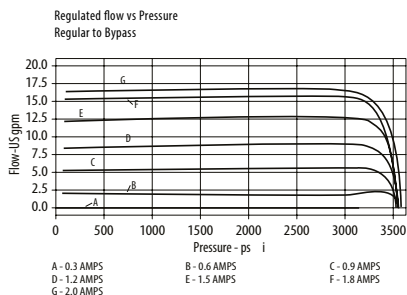
Rated pressure*	<b>210 bar [3000 psi]</b>
Max regulated flow	<b>57 l/min [15 US gpm]</b>
Leakage	240 ml/min @ 210 bar [3000 psi]
Maximum Hysteresis	13%
Recommended PWM frequency	200-400 Hz
Threshold current	350 mA [12 VDC coil] 175 mA [24 VDC coil]
Maximum control current	1.6 A [12 VDC coil] 0.8 A [24 VDC coil]
Coil Options	E series
Weight	0.37 kg [0.82 lb]
Cavity	C-12-3

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

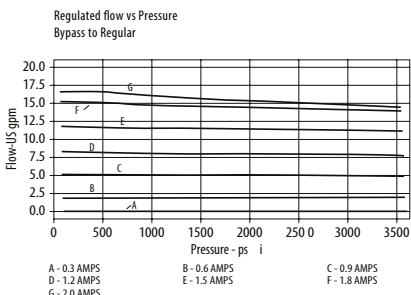
### PERFORMANCE CURVES



A - A spool  
 B - B spool



A - 0.3 AMPS      B - 0.6 AMPS      C - 0.9 AMPS  
 D - 1.2 AMPS    E - 1.5 AMPS      F - 1.8 AMPS  
 G - 2.0 AMPS



A - 0.3 AMPS      B - 0.6 AMPS      C - 0.9 AMPS  
 D - 1.2 AMPS    E - 1.5 AMPS      F - 1.8 AMPS  
 G - 2.0 AMPS

Note: Pressure Compensation curves are shown for "B" spool valves.

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## EFV2-12-C

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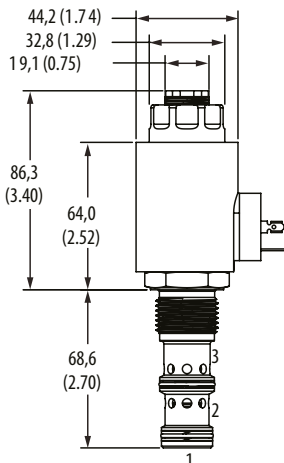
210 bar [3000 psi] • 57 l/min [15 US gpm]

### ■ DIMENSIONS

mm [in]

#### Coil Nut Torque

4.5-5.5 N [40-49 in lb]



#### Installation torque

A - 81-95 Nm [60-70 ft. lbs]

S - 102-115 Nm [75-85 ft. lbs]

### ■ MODEL CODE

**EFV2 - 12 - N - C - A - S - A - 04G - 12D - G - A - E**

#### Seal Option

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

#### Max regulated flow

Code	Flow
A	57 l/min [15 US gpm]
B	38 l/min [10 US gpm]

#### Manual Override Option

0 - No manual override  
S - Screw Type

#### Housing Material

0mit - No housing  
A - Aluminium  
S - Steel

#### Coil Series

0mit - No coil  
E - E series

#### Lead Wire Length (W connector type only)

0mit - None  
A - 152mm [6.0 in]  
(standard length with connector)  
B - 610mm [24.0 in]  
(standard length without connector)

#### Connector Type

0mit - No coil  
G - DIN 43650  
W - Flying lead  
C - Deutsch Male (DT04-2P), On wire leads

#### Coil Voltage

00 - No coil, nut included (p/n 6034634-001)  
12D - 12 VDC  
24D - 24 VDC

#### Housing

Code	Ports	Aluminium	Steel
0	No housing		
04G	1/2" BSP	02-161817	02-169815
06G	3/4" BSP	02-161816	02-169814
10T	#10 SAE	02-160642	02-161070
12T	#12 SAE	02-160646	02-169816

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

\* Additional housings available