

Proportional Valves

EFV2-12-O

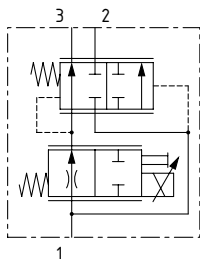
Proportional Flow Control Valve, Normally Open, Priority Type, Pressure Compensated

210 bar [3000 psi] • 53 l/min [14 US gpm]

DESCRIPTION AND OPERATION

This is a 3-way, spool type, normally open, priority type, pressure compensated proportional flow control valve. In the de-energized condition, port 1 is open to port 3 to the rated controlled flow and excess flow passes to port 2. Energizing the coil will proportionally move the spool, restricting flow through 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 decrease the priority outlet flow.

SCHEMATIC

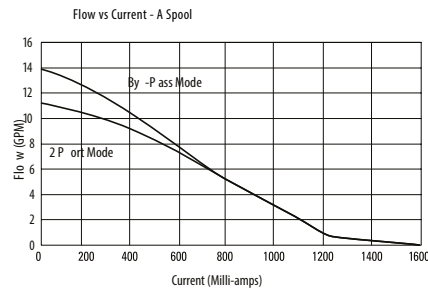
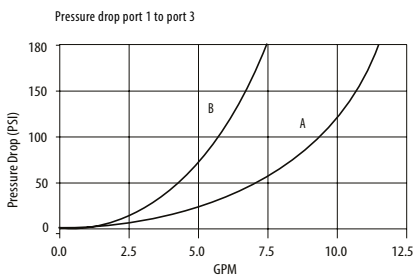
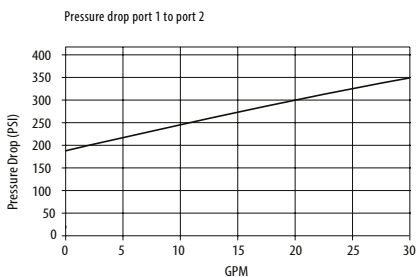


PERFORMANCE DATA

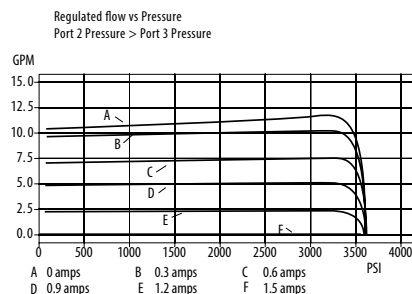
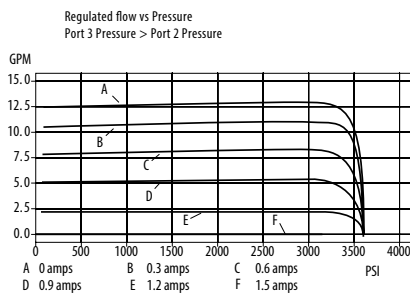
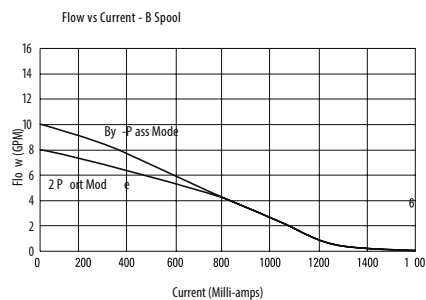
Rated pressure*	210 bar [3000 psi]
Max Regulated flow	53 l/min [14 US gpm]
Leakage	240 ml/min (15 in ³ /min) at 210 bar [3000 psi]
Recommended PWM frequency	200-400 Hz
Maximum Hysteresis	13%
Threshold current	150 mA [12 VDC coil] 75 mA [24 VDC coil]
Maximum control current	1.6 A [12 VDC coil] 0.8 A [24 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



Parameters: 400 Hz PWM



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

Proportional Valves

EFV2-12-O

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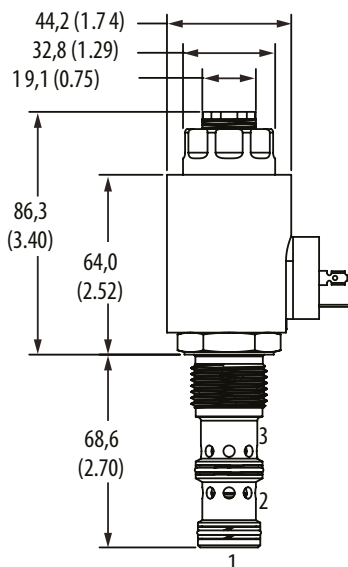
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■ DIMENSIONS

mm [in]

Coil nut torque

4.5-5.5 Nm [40-49 in lbs]



Installation torque

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

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

■ MODEL CODE

EFV2 - 12 - V - O - A - S - A - 12T - 12D - G - A - E

Seal Option

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

Max Regulated flow

Code	Flow
A	53 l/min [14 US gpm]
B	38 l/min [10 US gpm]

Manual Override Option

O - No manual override
S - Screw Type

Housing Material

Omit - No housing
A - Aluminium
S - Steel

Coil series

Omit - No coil
E - E series coils

Lead Wire Length (W connector type only)

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

Connector Type

Omit - 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