

Proportional Valves

PFC10-PO



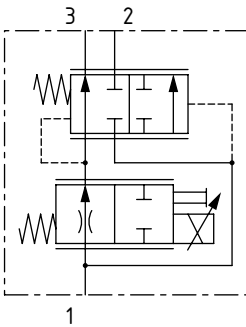
Proportional Flow Control Valve, Normally Open, Priority Type, Pressure Compensated

260 bar [3800 psi] • 35 l/min [9.2 US gpm]

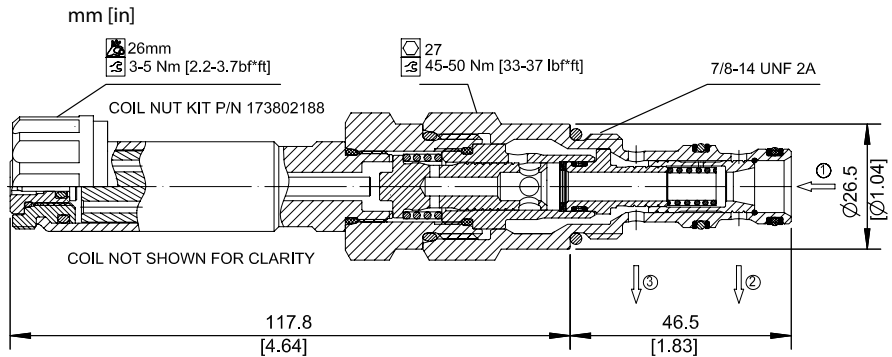
DESCRIPTION AND OPERATION

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



DIMENSIONS

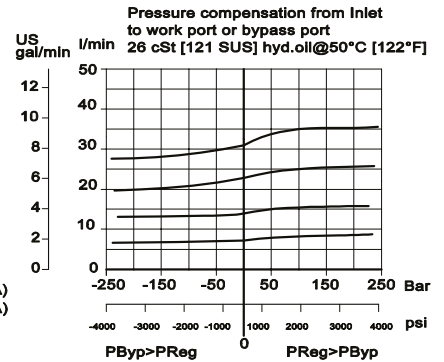
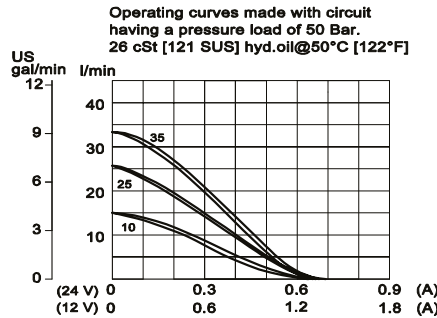


PERFORMANCE DATA

Rated pressure*	260 bar [3800 psi]
Max Regulated Flow	35 l/min [9.2 US gpm]
Leakage	420 ml/min [25.6 in ³ /min] @rated pressure
Maximum Hysteresis	8%
Threshold current	0.1 A [12 VDC coil] 0.05 A [24 VDC coil]
Maximum control current	1.8 A [12 VDC coil] 0.9 A [24 VDC coil]
Coil Options	M19P
Weight	0.72 kg [1.59 lb]
Cavity	SDC10-3

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

PERFORMANCE CURVES



MODEL CODE

PFC10 - PO - 35 - 12D - DN - SPS - B - 6S

Max Regulated Flow

Code	Flow
10	10 l/min [2.6 US gpm]
25	25 l/min [6.6 US gpm]
35	35 l/min [9.2 US gpm]

Coil Voltage

00 - No coil, nut included*
12D - 12 VDC
24D - 24 VDC

*Standard Coil - Plastic coil nut and o-rings (p/n 173802188)

Connector Type

00 - No coil
AJ - AMP Junior
DE - Deutsch
DN - DIN 43650

Manual Override Option

Omit - Push Pin
SPS - Screw Type

Housing

Code	Ports & Material	Housing Model Code
00	No housing	
6S	AL, #6 SAE	CP10-3-6S
8S	AL, #8 SAE	CP10-3-8S
SE3B	AL, 3/8 BSP	SDC10-3-SE3B
SE4B	AL, 1/2 BSP	SDC10-3-SE4B

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

* Additional housings available

Seal Option

Code	Seal kit
B - Buna - N	35400421
V - Viton	35400371