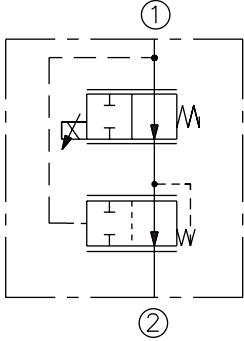


# ELECTRO-PROPORTIONAL VALVES—FLOW CONTROLS

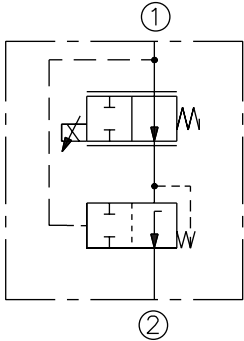
## PFR72-35x-L Proportional Flow Regulator, N.O.,

### SYMBOLS

#### USASI:



#### ISO:



#### Attention Manifold Designers:

To obtain these high flow capabilities using proportional flow controls and compensators, optimized cavity drillings are required. Please consult factory.

### DESCRIPTION

A pressure-compensated electrically-variable two-port flow regulator that is normally open when de-energized. This combination valve uses a PV72-35x proportional cartridge and an EC12-30 compensator.

### OPERATION

This proportional valve/compensator package will regulate flow out of port ② regardless of system working pressure. With an increasing current applied to the solenoid, the PFR72-35x-L will decrease output flow.

### FEATURES

- Excellent linearity and hysteresis characteristics.
- Optional control orifice sizes.
- Hardened spool and cage for long life.
- Optional coil voltages and terminations.
- Efficient wet armature construction.
- Cartridges voltage interchangeable.
- Unitized, molded coil design.
- Coil waterproofing standard.
- Screw-in manual override option.

### RATINGS

**Operating Pressure:** 207 bar (3000 psi)

**Leakage:** 0.75 lpm (0.2 gpm) max. at 100% current applied

**Electrical:** 2 standard voltage ratings

Coil Voltage	Threshold Current	Max. Control Current
12 VDC	300 ± 200 mA	1500 ± 100 mA
24 VDC	150 ± 100 mA	750 ± 50 mA

#### Operation of Manual Override:

To Engage: Turn clockwise approximately 1 turn to reach start point. Continue another approximately 5 turns to full shift.

To Disengage: Turn counterclockwise approximately 6 turns until positive stop is found.

**Filtration:** See page 9.010.1

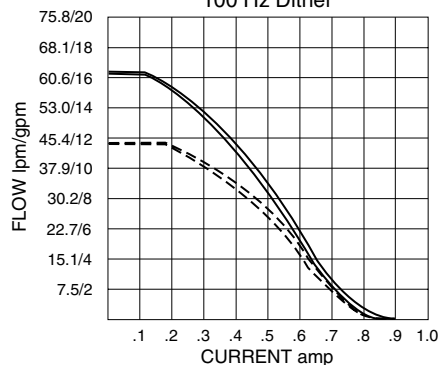
**Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu)

**Installation:** No restrictions; See page 9.020.1

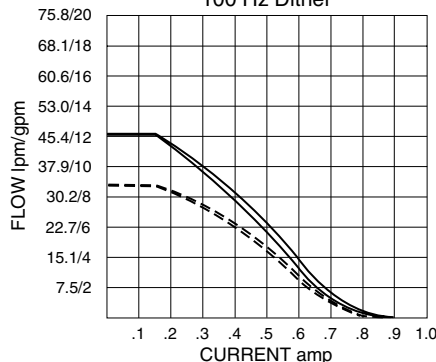
### PERFORMANCE CURVES Regulated Flow Delivered Out Port ②:

24 Volt coil used; 100 Hz dither; PWM controller. For 12 volt coils, double the current (amp) values shown.

Flow vs. Current (No Load)  
PV72-35A with EC12-30  
11 bar/160 psi spring —  
6.9 bar/100 psi spring - - - -  
100 Hz Dither



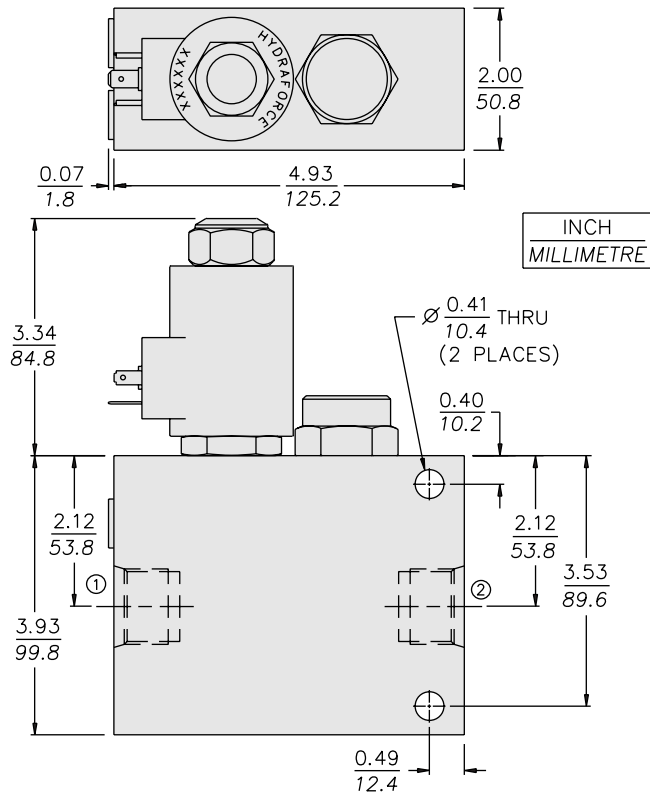
Flow vs. Current (No Load)  
PV72-35B with EC12-30  
11 bar/160 psi spring —  
6.9 bar/100 psi spring - - - -  
100 Hz Dither



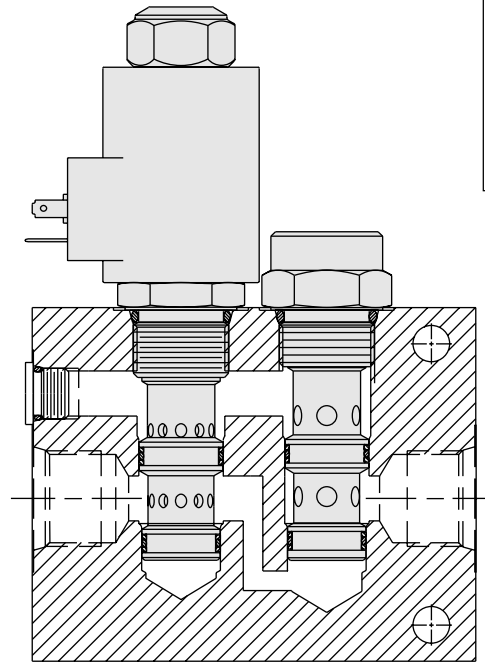
# 2-Port, Pressure Compensated

# PFR72-35x-L

## DIMENSIONS



**NOTE:** The N.O. PV72-33 may not be substituted in this manifold due to port logic factors.



## MATERIALS

**Cartridge:** Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and back-ups standard.

**Standard Ported Body:** Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi). Steel and ductile iron bodies available; dimensions may differ; consult factory.

**Coil:** Unitized thermoplastic encapsulated, Class H high temperature magnetwire; See page 3.200.1.

**Package Weight:** 3.18 kg. (7 lbs.).

**Seal Kit:** SK12-3x-MM (PV); SK12-3x-TB (EC)

## TO ORDER

**PFR72-35 - L - 12T - -**

*PV Orifice Range	Orifice Range <b>A</b> (Blank)	None	*Compensator Spring	6.9 bar (100 psi)	<b>100</b>	Seals	Buna N (Std.)	<b>N</b>	Voltage	<b>0</b>	Less Coil
	Orifice Range <b>B</b>	<b>M</b>		Screw Type	11.03 bar (160 psi)		<b>160</b>	Fluorocarbon		<b>V</b>	<b>12</b>
									<b>24</b>	24 VDC	

**Terminations**

- DS** Dual Spades
- DG** DIN 43650
- DL** Leadwires (2)
- DL/W** Leads w/Weatherpak® Connectors
- DR** Deutsch DT04-2P

Coils with internal diode are available. Consult factory.