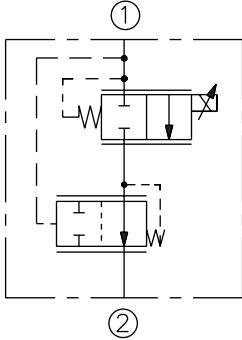


# ELECTRO-PROPORTIONAL VALVES—FLOW CONTROLS

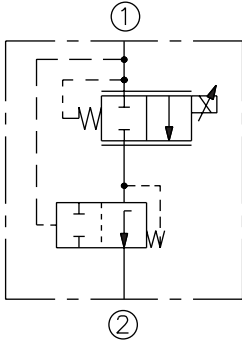
## PFR72-33x-L Proportional Flow Regulator, N.C.,

### 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 closed when de-energized. This combination valve uses a PV72-33x 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 PFR72-33x-L will increase 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)

**Internal Leakage:** 492 cc/min. (30 cu. in./min.) fully closed at 207 bar (3000 psi) out port ②.

**Electrical:** 2 standard voltage ratings

Coil Voltage	Threshold Current (mA)	Max. Control Current (mA)
12 VDC	300 ± 200 mA	1500 ± 100 mA
24 VDC	150 ± 35 mA	750 ± 100 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.

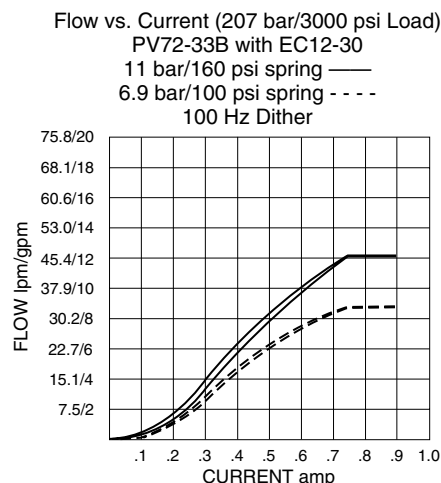
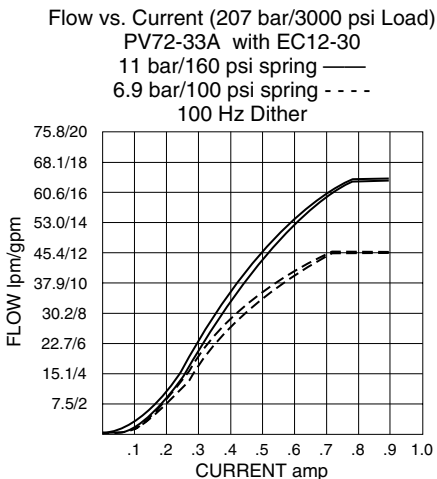
**Filtration:** See page 9.010.1

**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:

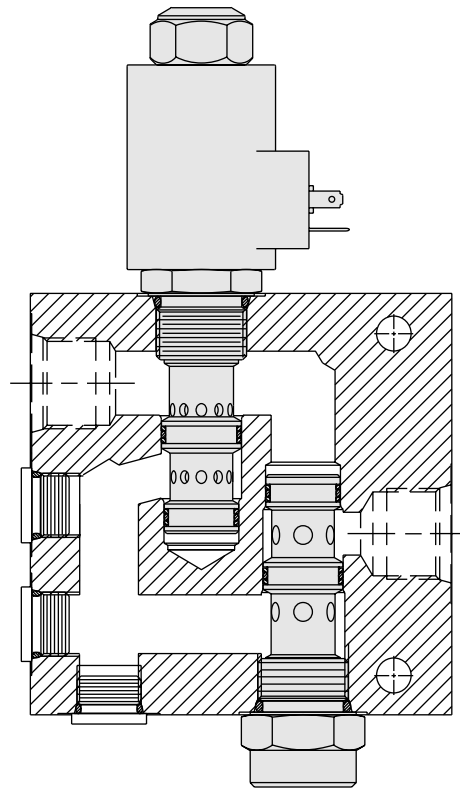
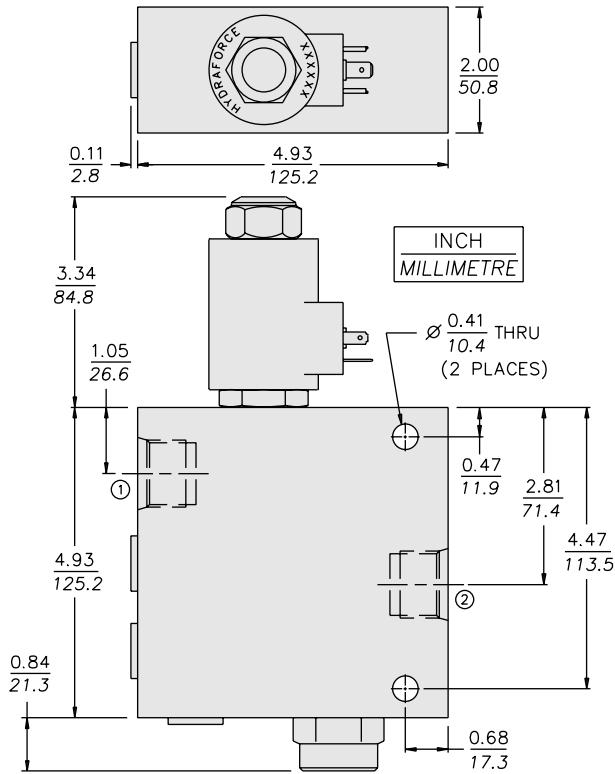
24 Volt coil used; 100 Hz dither; PWM controller. For 12 volt coils, double the current (amp) values shown.



# 2-Port, Pressure Compensated

# PFR72-33x-L

## DIMENSIONS



**NOTE:** The N.O. PV72-35 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

PFR72-33 - L - 12T - -

### \*PV Orifice Range

Orifice Range	<b>A</b>	(Blank)	None
Orifice Range	<b>B</b>	<b>M</b>	Screw Type

### Override Option

<b>*Compensator Spring</b>	
6.9 bar (100 psi)	<b>100</b>
11.03 bar (160 psi)	<b>160</b>

### Terminations

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

Coils with internal diode are available. Consult factory.

### Seals

Buna N (Std.)	<b>N</b>
Fluorocarbon	<b>V</b>

### Voltage

<b>0</b>	Less Coil
<b>12</b>	12 VDC
<b>24</b>	24 VDC

\*Select Orifice Range and Compensator Spring by referring to the Performance Curves on the preceding page.