



5.12

50PD10-42 TYPE

Hydraulic Directional Valve

Rated pressure (bar / psi)	350 / 5000
Peak flow (L/min / gpm)	50 / 13 (See performance chart)

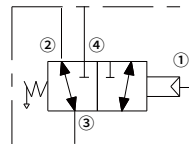
Features

- Hardened parts for long life
- Compact size
- Industry common cavity

Contents

Description	02
Operation	02
Ordering code	02
Materials	02
Technical data	03
Performance	03
Dimensions	04

Symbol



Description

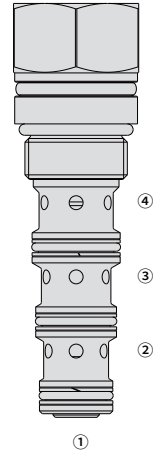
A screw-in, cartridge-style, pilot-operated, spool-type, hydraulic directional valve for 3-way circuits requiring remote pilot actuation.

Operation

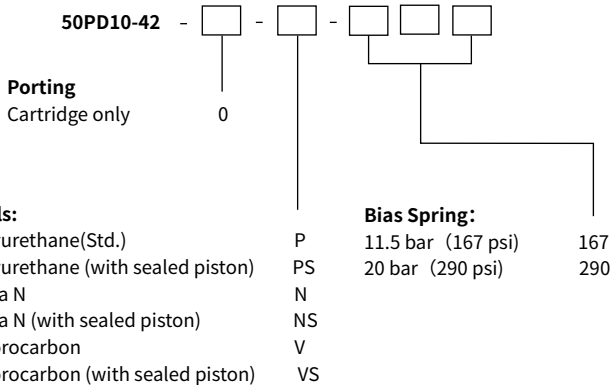
In neutral (unpiloted), 50PD10-42 allows flow from ③ to ② bidirectionally while ④ is blocked.

On remote pilot signal at ①, the valve shifts to open from ③ to ④ bidirectionally while blocking flow to ②.

Because of the vented spring chamber, the cartridge may be fully pressurized at any port without affecting required pilot pressure.



Ordering Code



Materials

Cartridge:

Weight: 0.2 kg; Steel with hardened work surfaces. Zinc-plated exposed surfaces; Polyurethane (Std.) seal.

Standard Ported Body:

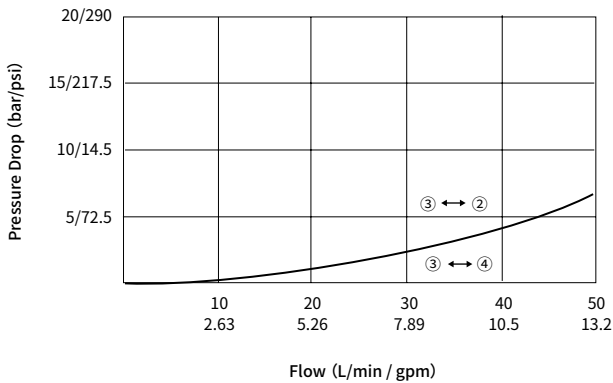
Anodized high-strength aluminum alloy, rated to 240 bar; Ductile iron and steel bodies available; Dimensions may differ, consult factory.

Technical Data

Rated pressure	350 bar (5000 psi)
Peak flow	50 L/min (13 gpm)
Internal leakage	≤ 50 mL/min @ 207bar
Cavity	VC10-4 (See technical reference)
Fluid	Mineral-based or synthetics with lubricating properties
Viscosity range	7.4 to 420 mm ² /s
Temperature range	-54 to 107 °C (Polyurethane seals)
	-26 to 204 °C (Fluorocarbon seals)
	-40 to 100 °C (Buna N seals)
Degree of fluid contamination	The minimum pollution level is ISO4406 level 20/18/14, and level 17/15/13 is recommended to prolong the service life

Performance (Cartridge Only)

32 cSt/150 sus oil at 40°C



Dimensions

