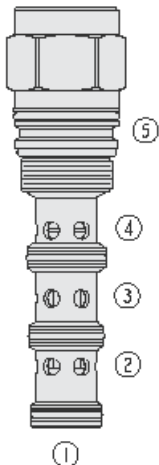




Overview



Description

The PD16-S50X is a screw-in, cartridge style, pilot operated, spool type, hydraulic directional valve.

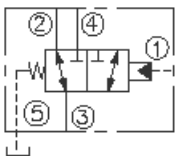
Operation

In the neutral position flow is allowed between ports 3 and 2, while blocking flow at port 4. On remote pilot signal at port 1 the valve shifts to allow flow between ports 3 and 4, while blocking flow at port 2. The spring chamber is vented to the tank through port 5. The vented spring chamber allows the valve to be fully pressurized at ports 1, 2, 3 and 4 without affecting required pilot pressure. Pressure at port 5 will affect required pilot pressure.

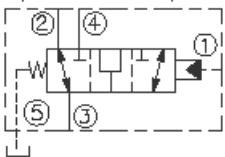
Features

- Hardened spool and cage for long life.
- 50, 70, 100 and 150 psi bias springs available.

Symbol



Open Transition Option:



Ratings

Pressure Ratings

Pressure rating 241 bar (3500 psi)

Flow Ratings

Flow rating See performance graph

Maximum internal leakage 245 ml/min (15 in³/min) - **Note:** At 207 bar (3000 psi). Zero leakage from port 1 to port 2 with sealed spool

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With viton seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Operating Parameters

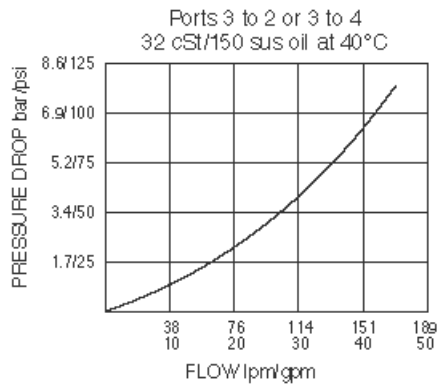
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406



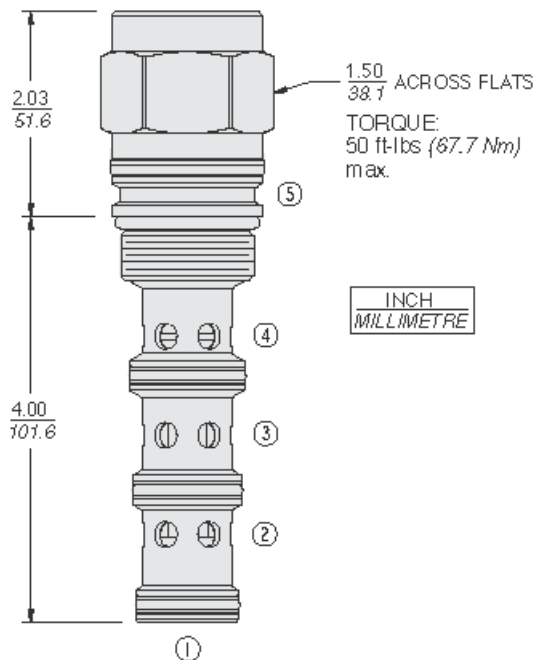
Properties

Unit weight	0.68 kg (1.50 lb)
Internal wetted surface area	478.5 cm ² (74.16 in ²)

Performance



Dimensions



Installation Specifications

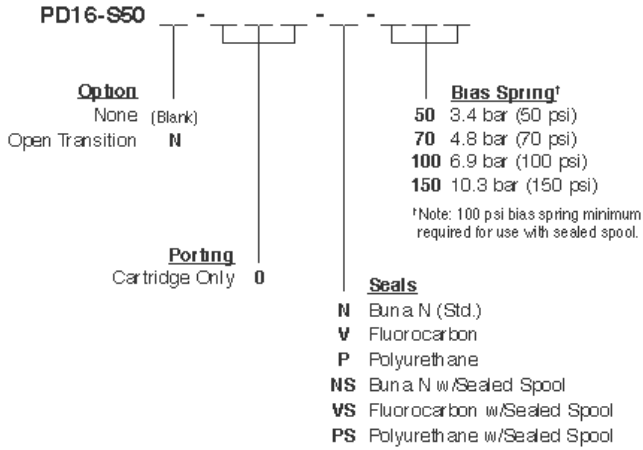
Cavity	VC16-S5
Cartridge installation torque	62.4 to 73.2 N-m (46 to 54 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK16-S5X-BMMM	- Note: X = seal option
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Order Code



Model Options

PD16-S50B-H-J-R

B Spool Option

CODE	DESCRIPTION
BLANK	Standard
N	Normally Open in Transition

H Line Body

CODE	DESCRIPTION
0	No Body
0	No Body

J Seal

CODE	DESCRIPTION
N	Buna-N
NS	Buna-N with a Sealed Spool
V	Fluorocarbon
VS	Fluorocarbon with a Sealed Spool
P	Polyurethane
PS	Polyurethane with a Sealed Spool
U	PPDI Urethane
US	PPDI Urethane with a Sealed Spool

R Spring

CODE	DESCRIPTION
50	50 psi Bias Spring
70	70 psi Bias Spring
100	100 psi Bias Spring
150	150 psi Bias Spring