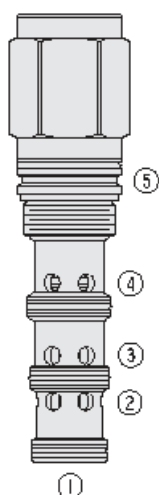




Overview



Description

The PD42-S50X is a screw-in, cartridge style, pilot-operated, spool type hydraulic directional valve.

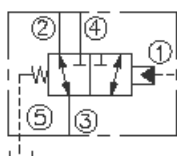
Operation

In neutral position the valve allows flow from port 2 to port 3 bidirectionally, while port 4 is blocked. On remote pilot signal at port 1, the valve's spool shifts to allow flow from port 3 to port 4, while blocking flow to port 2. Since port 5 is common to the spring chamber, pressure on port 5 will directly (1:1) affect the pilot pressure required and must be added to the bias spring value.

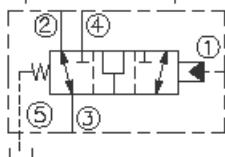
Features

- Hardened spool and cage for long life.
- Optional open transition for ports 2, 3 and 4.

Symbol



Open Transition Option:



Ratings

Pressure Ratings

Pressure rating 345 bar (5000 psi)

Flow Ratings

Flow rating See performance graph

Maximum internal leakage 245 ml/min (15 in³/min) - **Note:** At 345 bar (5000 psi)

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 fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane and urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

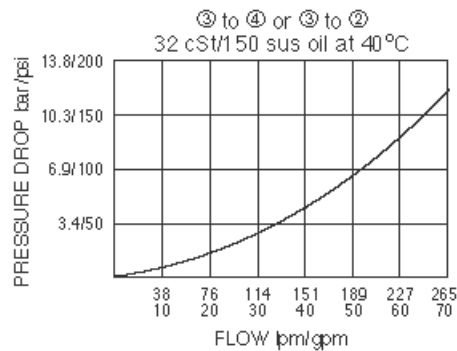
Operating Parameters

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

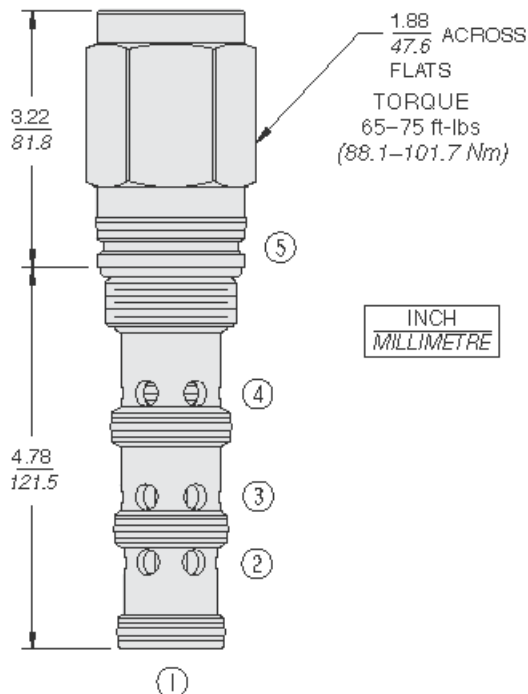
Properties

Unit weight	1.6 kg (3.4 lb)
Internal wetted surface area	794 cm ² (123 in ²)

Performance



Dimensions



Installation Specifications

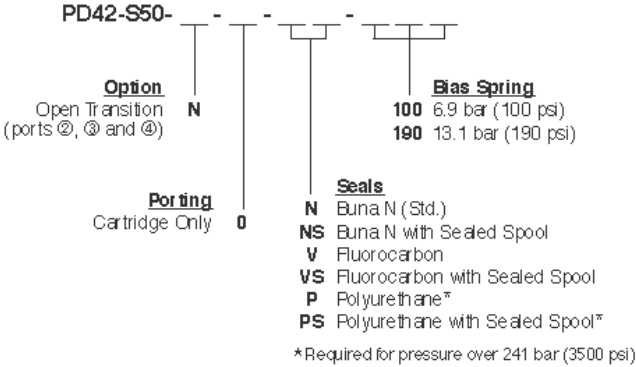
Cavity	VC42-S5
Cartridge installation torque	88.1 to 101.7 N-m (65 to 75 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK42-S5N-BMMM (buna-n) - Note: Buna-n
	SK42-S5V-BMMM - Note: Fluorocarbon
	SK42-S5P-BMMM - Note: Polyurethane
	SK42-S5U-O000 - Note: Urethane



Order Code



Model Options

PD42-S50B-H-J-R

B Spool Option

CODE	DESCRIPTION
BLANK	Standard
N	Normally Open in Transition

H Line Body

CODE	DESCRIPTION
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
100	100 psi Bias Spring
190	190 psi Bias Spring