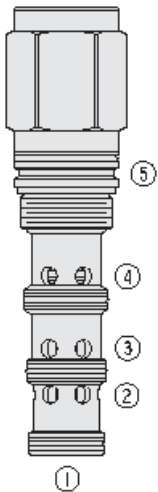




## Overview



### Description

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

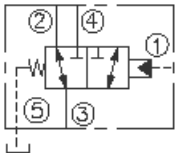
### Operation

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

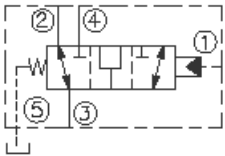
### Features

- 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 in<sup>3</sup>/min) - **Note:** At 345 bar (5000 psi)

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> 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

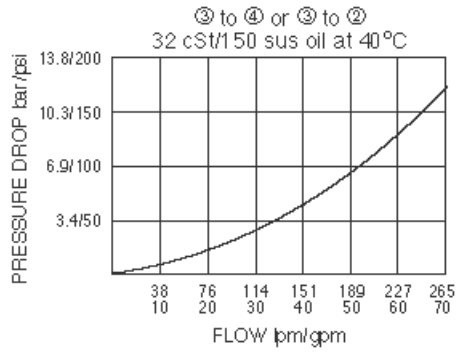
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

## Properties

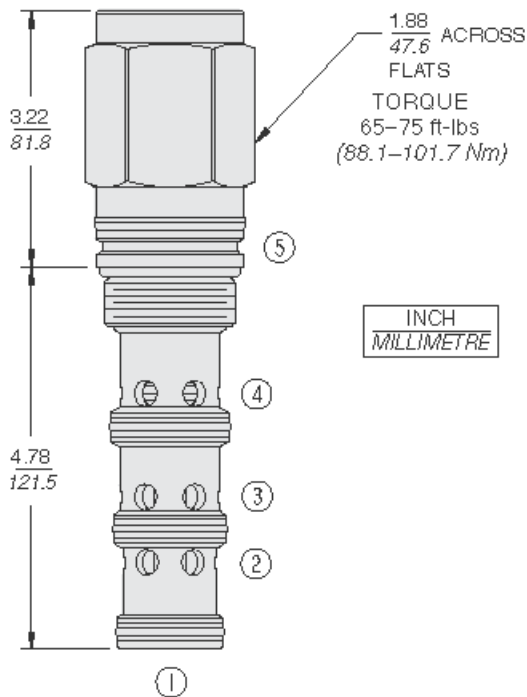
Unit weight	1.6 kg (3.4 lb)
Internal wetted surface area	794 cm <sup>2</sup> (123 in <sup>2</sup> )



## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 1.60 kg (3.5 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-ups standard.

**Ported Body:** Consult factory.

## Installation Specifications

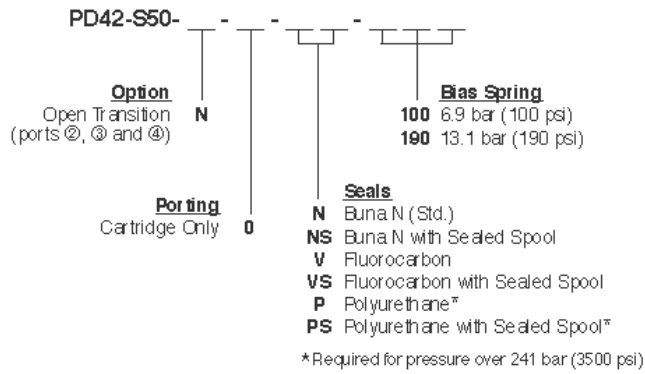
Cavity	VC42-S5
Cartridge installation torque	88.1 to 101.7 N-m (65 to 75 ft-lb)
Orientation restriction	None

## Accessories

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



**Order Code**



POSITION	CODE	DESCRIPTION
		PD42-S50B-H-J-R
B		Spool Option
B	BLANK	Standard
B	N	Normally Open in Transition
H		Line Body
H	0	No Body
J		Seal
J	N	Buna-N
J	NS	Buna-N with a Sealed Spool
J	V	Fluorocarbon
J	VS	Fluorocarbon with a Sealed Spool
J	P	Polyurethane
J	PS	Polyurethane with a Sealed Spool
J	U	PPDI Urethane
J	US	PPDI Urethane with a Sealed Spool
R		Spring
R	100	100 psi Bias Spring
R	190	190 psi Bias Spring