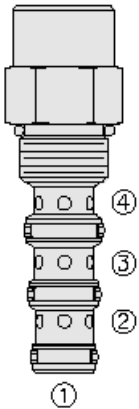




Overview



Description

The pd10-42xx is a screw-in, cartridge style, pilot operated, spool-type hydraulic directional valve.

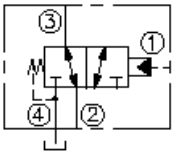
Operation

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

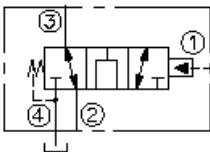
Features

- Hardened spool and cage for long life.
- Industry-common cavity.

Symbol



Open Transition:



Ratings

Pressure Ratings

Pressure rating 241 bar (3500 psi)

Flow Ratings

Maximum internal leakage 82 ml/min (5 in³/min) - **Note:** At from port 1 to 2 or port 2 to 3; zero leakage from port 1 to 2 with sealed spool 207 bar (3000 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 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

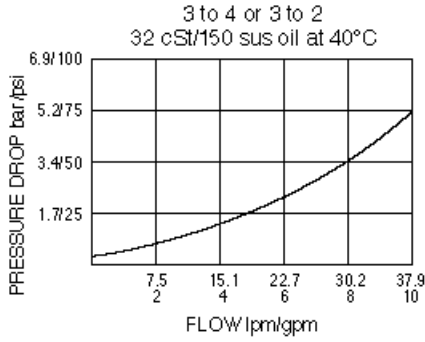
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties	
Fluid viscosity range	7.4 to 420 cSt	
Maximum operating contamination level	20/18/14 per ISO 4406	

Properties

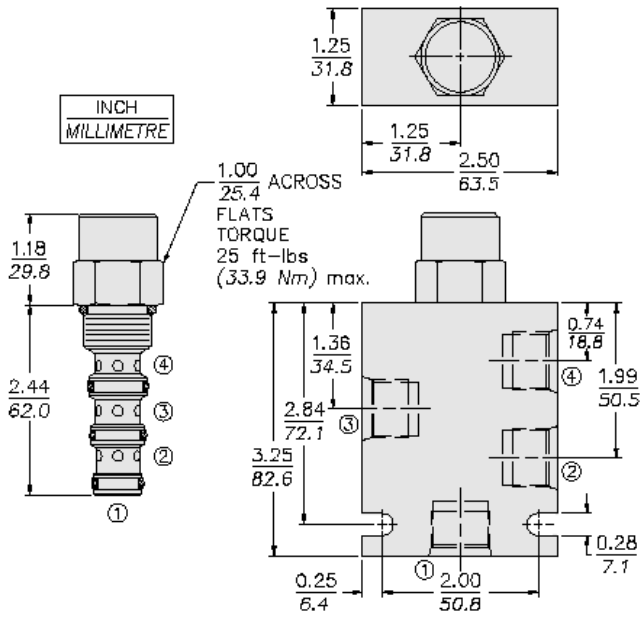
Unit weight	0.19 kg (0.42 lb)	- Note: Pd10-42/42n
	0.27 kg (0.60 lb)	- Note: Pd10-42t/42nt
Internal wetted surface area	190 cm ² (29.5 in ²)	- Note: Pd1042/42n
	226 cm ² (35.0 in ²)	- Note: Pd1042t/42nt



Performance



Dimensions



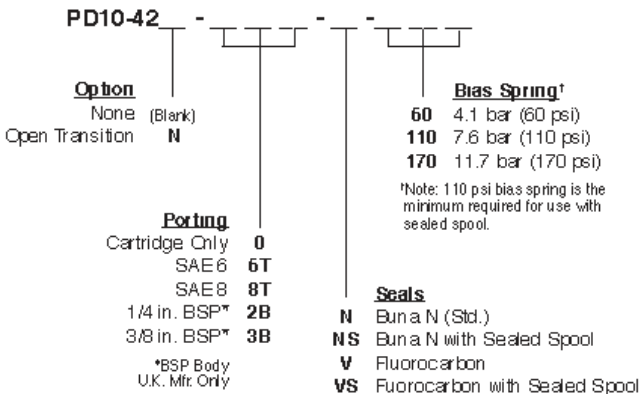
Installation Specifications

Cavity	VC10-4
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 ft-lb)
Orientation restriction	None

Accessories

Seal kit SK10-4X-MMM - Note: X = seal option

Order Code



Model Options

PD10-42BC-H-J-R



B Spool Option

CODE	DESCRIPTION
N	Normally Open in Transition

C Tall Cap

CODE	DESCRIPTION
BLANK	Standard Cap
T	Tall Cap

H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6

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
60	60 psi Bias Spring
110	110 psi Bias Spring
130	130 psi Bias Spring
170	170 psi Bias Spring
200	200 psi Bias Spring