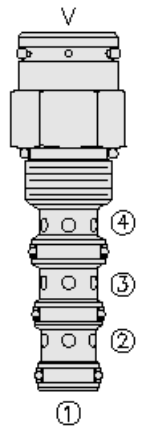
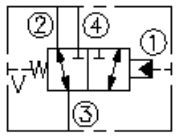
PILOTED DIRECTIONAL VALVE

Overview



SYMBOL



Description

The pd10-40xx 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 bidirectionally, while port 4 is blocked. The spring chamber is vented to atmosphere "v" which is internally o-ring sealed from the cartridge flow paths. On remote pilot signal at port 1, the valve's spool shifts to open port 3 to 4 while port 2 is blocked. Because of the vented spring chamber, the cartridge may be fully pressurized at any port without affecting required pilot pressure.

Features

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

Ratings

Pressure Ratings

Pressure rating: 241 bar (3500 psi)

Flow Ratings

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 90 °C (-40 to 194 °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: 18/16/13 per ISO 4406

Properties

Unit weight: 0.20 kg (0.43 lb) note: Standard

0.30 kg (0.67 lb) note: Tall cap

Internal wetted surface area: 189 cm^2 (29.3 in^2) note: (standard)

225 cm^2 (34.9 in^2) note: (tall cap)

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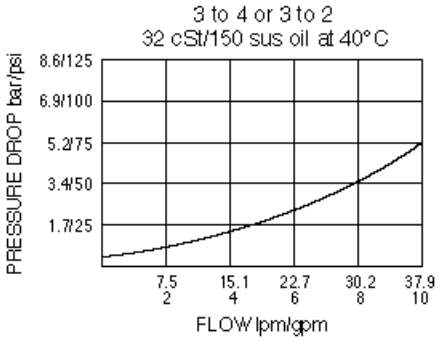
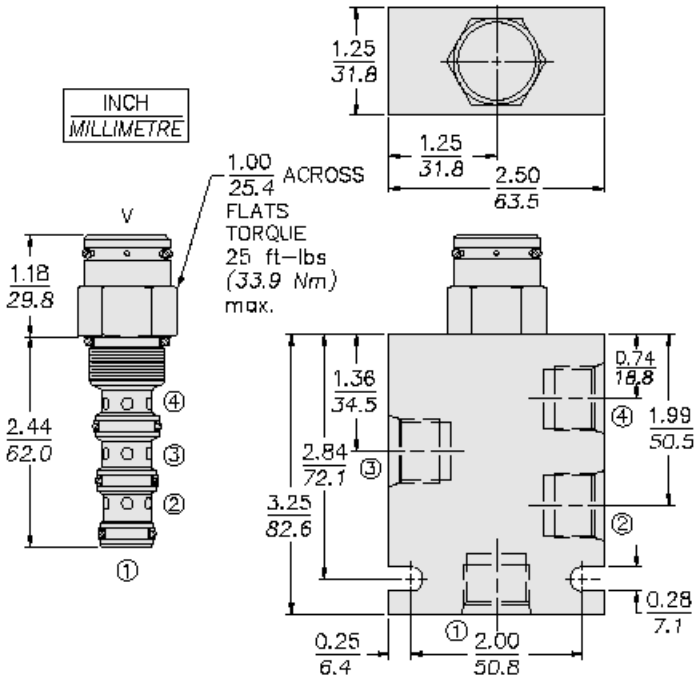
Performance



Dimensions



Installation Specifications

Cavity: VC10-4

10-size-4-way Cavities

Cartridge installation torque: 32.6 to 35.4 N-m (24 to 26 ft-lb)

Orientation restriction: None

Accessories

Seal kit: SK10-4N-MMM ; SK10-4V-MMM ; note: Buna N

SK10-4P-MMM ; SK10-4U-000 note: Polyurethane

Seal kit installation instructions

Housings: Available 10-4w valve bodies

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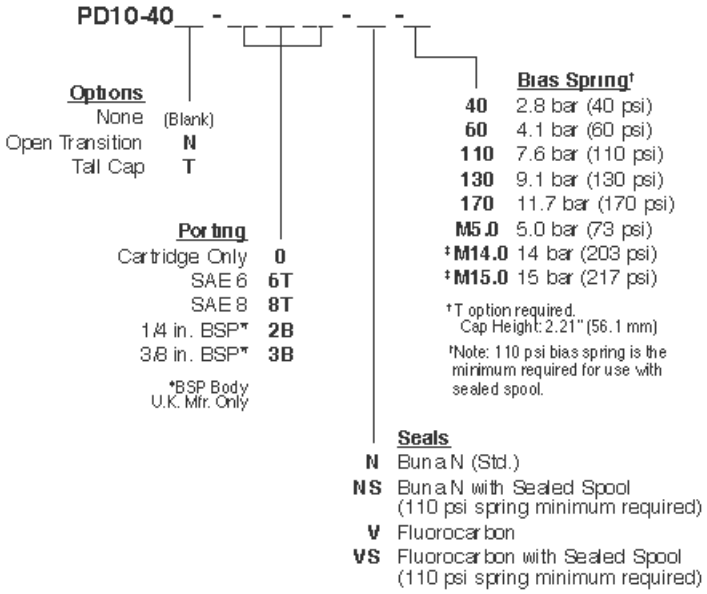
Order Code



Model Options

PD10-40BC-H-J-R

B Spool Option

CODE	DESCRIPTION
BLANK	Standard
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
40	40 psi Bias Spring
60	60 psi Bias Spring
M5.0	5 bar Bias Spring
110	110 psi Bias Spring
130	130 psi Bias Spring

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CODE	DESCRIPTION
170	170 psi Bias Spring
200	200 psi Bias Spring
M14.0	14 bar Bias Spring
M15.0	15 bar Bias Spring