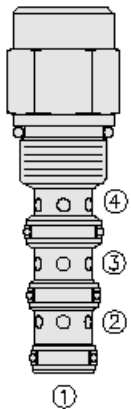




## Overview



### Description

The PD10-44 is a screw-in, cartridge style, pilot-operated, spool type, hydraulic directional valve.

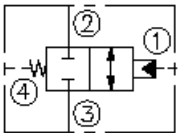
### Operation

In neutral position the valve blocks flow from port 2 to 3. On remote pilot signal at port 1, the valve's spool shifts to allow flow from port 2 to 3 bidirectionally. The spring chamber is vented to port 4 which is internally o-ring sealed from the cartridge flow paths. 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



## Ratings

### Pressure Ratings

Pressure rating 241 bar (3500 psi)

### Flow Ratings

Maximum internal leakage 82 ml/min (5 in<sup>3</sup>/min) at 207 bar (3000 psi) - **Note:** From port 1 to 2 or port 2 to 3 (when shifted)

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 160 °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 seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

### Other Ratings

Corrosion protection Gpd10-44 - 960 hr salt spray per ASTM b117

## Operating Parameters

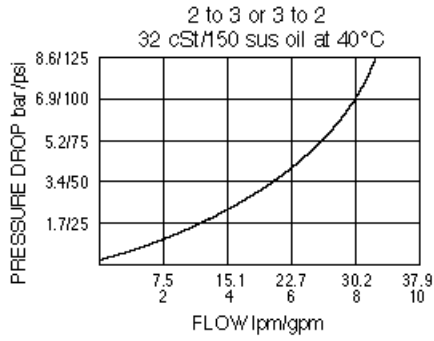
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

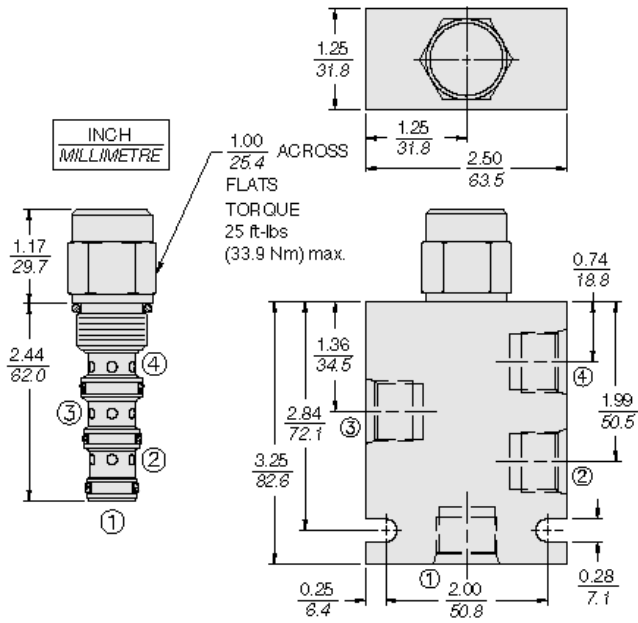
Unit weight	0.20 kg (0.43 lb)
Internal wetted surface area	192 cm <sup>2</sup> (29.77 in <sup>2</sup> )



## Performance



## Dimensions



## Installation Specifications

Cavity	VC10-4
Cartridge installation torque	32.6 to 35.4 N-m (24 to 26 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK10-4N-MMM - <b>Note:</b> Buna N
	SK10-4V-MMM - <b>Note:</b> Fluorocarbon
	SK10-4P-MMM - <b>Note:</b> Polyurethane
	Installation specifications



Order Code

PD10-44 -



**Porting**

- Cartridge Only **0**
- SAE 6 **6T**
- SAE 8 **8T**
- 1/4 in. BSP\* **2B**
- 3/8 in. BSP\* **3B**

\*BSP Body  
U.K. Mfr. Only

**Bias Spring†**

- 60** 4.1 bar (60 psi)
- 110** 7.6 bar (110 psi)
- 170** 11.7 bar (170 psi)

Optional bias springs considered on OEM request

†Note: 110 psi bias spring is the minimum required for use with sealed spool.

**Seals**

- NS** Buna-N with Sealed Spool
- VS** Fluorocarbon with Sealed Spool

**Model Options**

PD10-44-H-J-R

**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