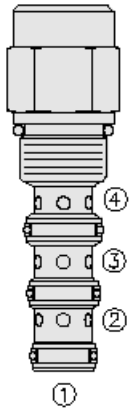




Overview



Description

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

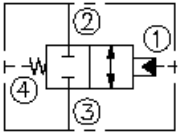
Operation

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 in³/min) (3000 psi) - **Note:** From port 1 to 2 or port 2 to 3 (when shifted) at 207 bar

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 160 °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 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

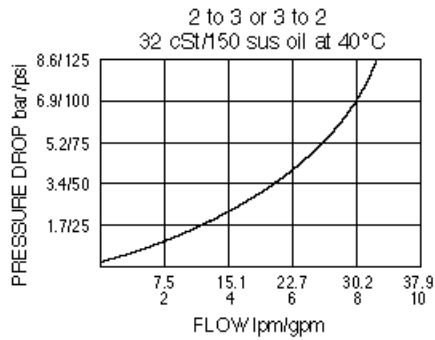
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

Properties

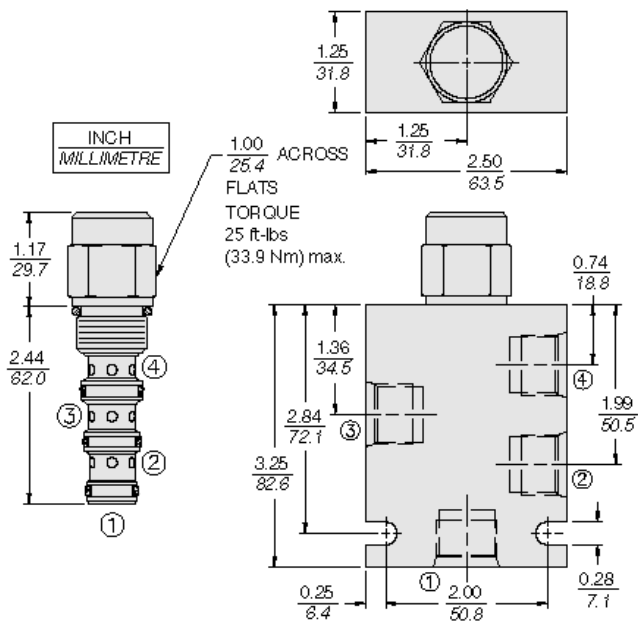
Unit weight	0.20 kg (0.43 lb)
Internal wetted surface area	192 cm ² (29.77 in ²)



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	- Note: Buna N
	SK10-4V-MMM	- Note: Fluorocarbon
	SK10-4P-MMM	- Note: Polyurethane
	Installation specifications	
Housings		



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

POSITION	CODE	DESCRIPTION
		PD10-44-H-J-R
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
H	6TD	Ductile Iron SAE 6
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	60	60 psi Bias Spring
R	110	110 psi Bias Spring
R	130	130 psi Bias Spring
R	170	170 psi Bias Spring