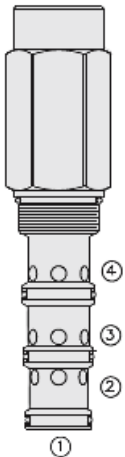




Overview



Description

Screw-in, cartridge-style, pilot-operated, spool-type, hydraulic directional valve for three-way circuits requiring remote hydraulic pilot actuation

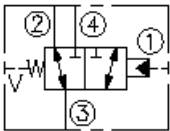
Operation

In neutral (unpiloted) position the PD42-M40X allows flow passage from port 3 to port 2 bidirectionally, while flow is blocked at port 4. "v" is a spring chamber vent-to-atmosphere, which is internally o-ring sealed from the cartridge flow paths. On remote pilot signal at port 1, the valve shifts to open port 3 to port 4, while blocking port 2. The vented aping chamber allows PD42-M40X to be fully pressurized at any port without affecting required pilot pressure

Features

- Hardened spool and cage for long life. Optional sealed pilot Industry-common ISO cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating 345 bar (5000 psi)

Flow Ratings

Flow rating 265 lpm (70 gpm)
 Maximum internal leakage 245 ml/min (15 in³/min) - **Note:** At 345 bar (5000 psi)
 0 lpm (0 gpm) - **Note:** From port 1 and 2 with sealed spool

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

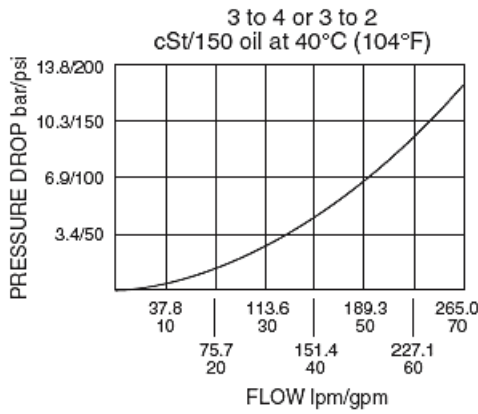
Fluids Mineral based or synthetic hydraulic fluid with lubricating properties
 Fluid viscosity range 7.4 to 420 cSt
 Maximum operating contamination level 20/18/14 per ISO 4406

Properties

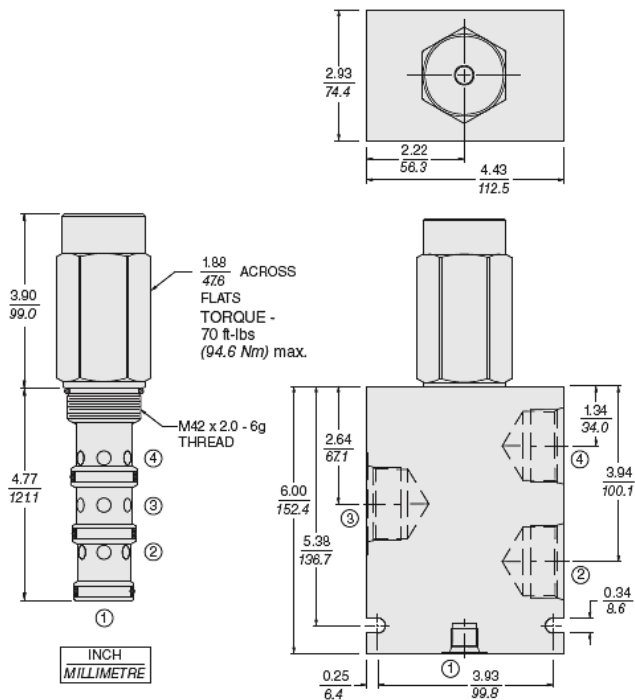
Unit weight 1.8 kg (4.0 lb)
 Internal wetted surface area 817 cm² (126.7 in²)



Performance



Dimensions



Materials

Materials

Cartridge: Weight: 0.52 kg. (1.15 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body : Weight: 2.8 kg. (6.2 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ.

Installation Specifications

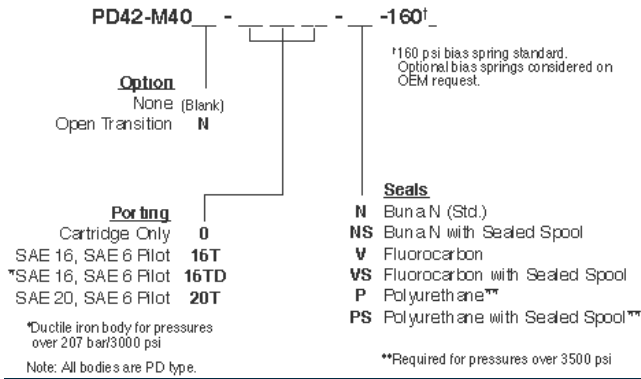
Cavity	VC42-M4
Cartridge installation torque	89 to 102 N-m (65 to 75 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK42-4N-MMM	- Note: Buna N
	SK42-4V-MMM	- Note: Fluorocarbon
	SK42-4P-MMM	- Note: Polyurethane
	SK42-4U-000	- Note: Urethane
Housings		



Order Code



POSITION	CODE	DESCRIPTION
		PD42-M40B-H-J-R
B		Spool Option
B	BLANK	Standard
B	N	Normally Open in Transition
H		Line Body
H	0	No Body
H	16T	Aluminum SAE 16
H	20T	Aluminum SAE 20
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	160	160 psi Bias Spring