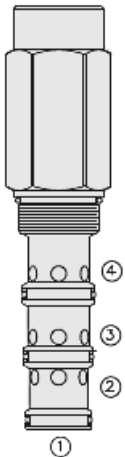




Overview



Description

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

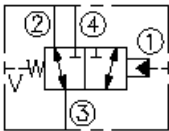
Operation

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

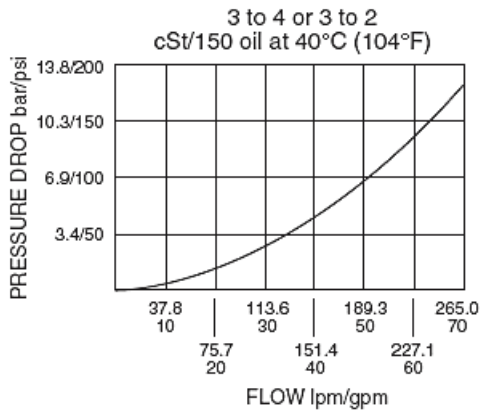
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

Properties

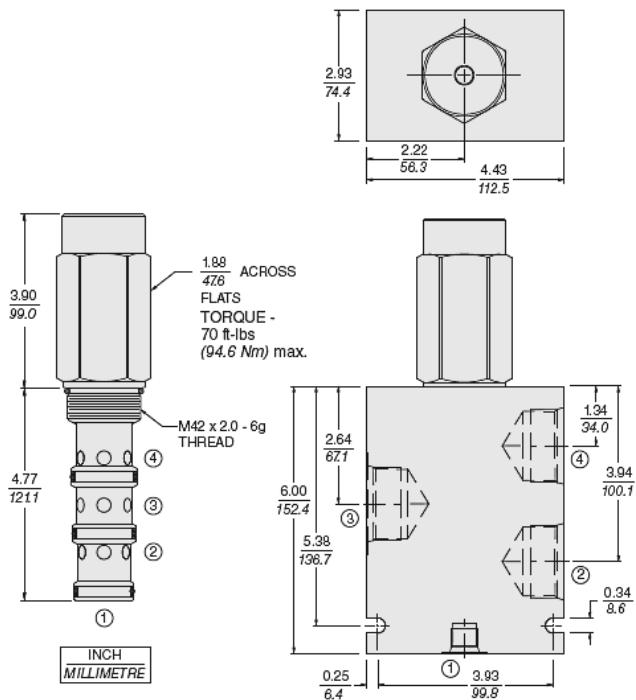
Unit weight	1.8 kg (4.0 lb)
Internal wetted surface area	817 cm ² (126.7 in ²)



Performance



Dimensions



Installation Specifications

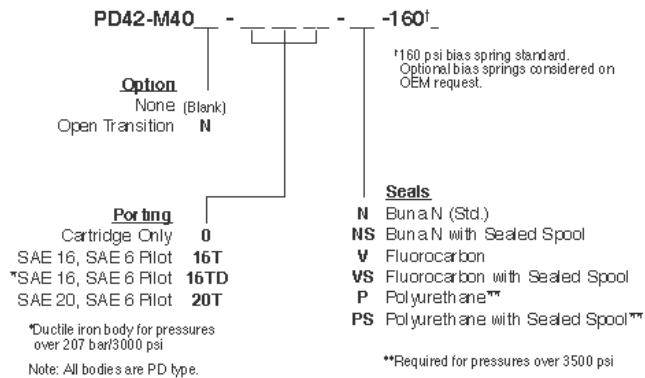
Cavity	VC42-M4
Cartridge installation torque	89 to 102 N-m (65 to 75 ft-lb)
Orientation restriction	None

Accessories

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



Order Code



Model Options

PD42-M40B-H-J-R

B Spool Option

CODE	DESCRIPTION
BLANK	Standard
N	Normally Open in Transition

H Line Body

CODE	DESCRIPTION
0	No Body
16T	Aluminum SAE 16
20T	Aluminum SAE 20

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
160	160 psi Bias Spring