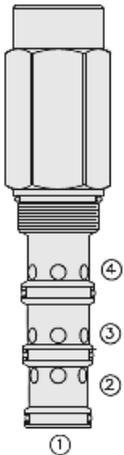




Overview



Description

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

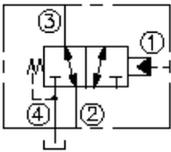
Operation

In neutral (unpiloted) position the PD42-M42 allows flow from port 3 to 2, bidirectionally, while flow is blocked at 4. On remote pilot signal at 1, the valve shifts open from 3 to 4, while blocking flow at 2. Note that 4 is common to the spring chamber and the pressure at 4 will directly (1:1) affect required pilot pressure and must always be added to the bias spring value.

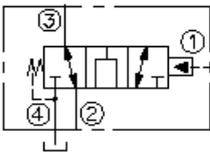
Features

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

Symbol



Open Transition:



Ratings

Pressure Ratings

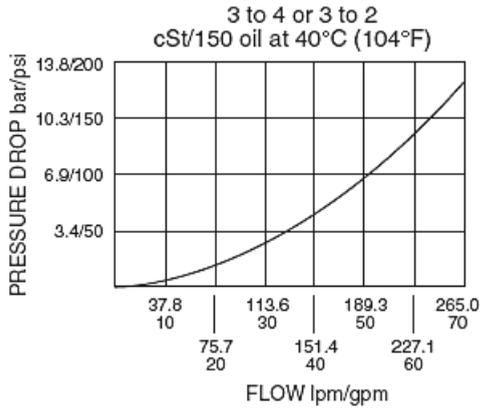
Pressure rating	345 bar (5000 psi) 210 bar (3000 psi)	- Note: Ports 1, 2 and 3 - Note: Port 4
Pilot pressure required	11.86 bar (172 psi) 14.48 bar (210 psi) 17.00 bar (245 psi)	- Note: To begin spool movement - Note: To bring the spool to cross-over point between flow patterns - Note: To fully shift the spool

Flow Ratings

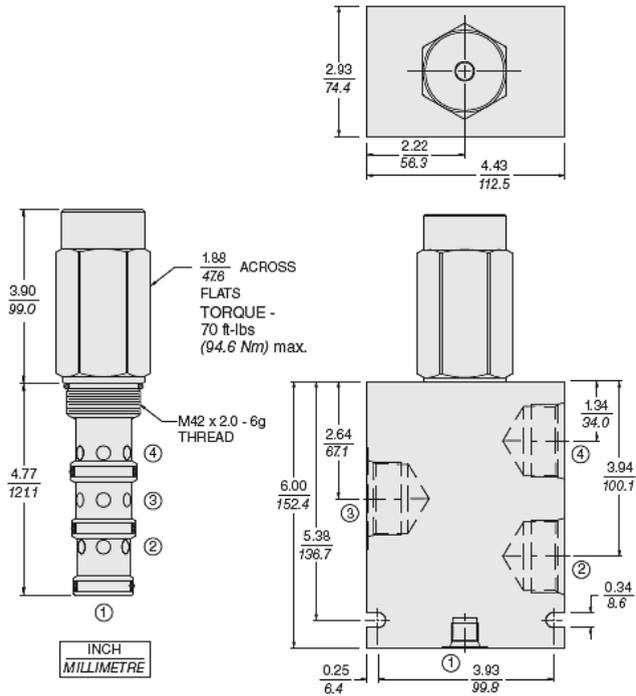
Flow rating	265 lpm (70 gpm)	
Maximum internal leakage	246 ml/min (15 in ³ /min)	- Note: On all ports at maximum operating pressure, except for the sealed pilot version, that exhibits no leakage at 1 at the maximum operating pressure



Performance

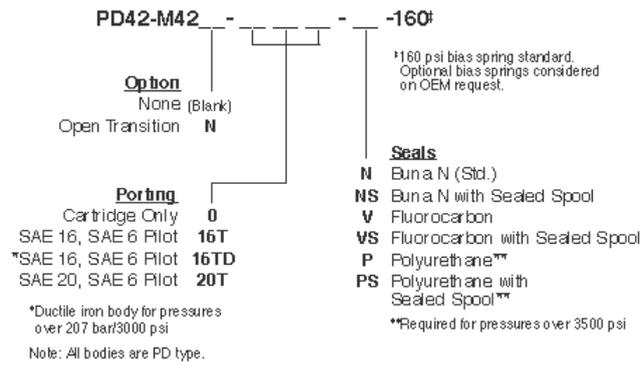


Dimensions





Order Code



Model Options

PD42-M42B-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