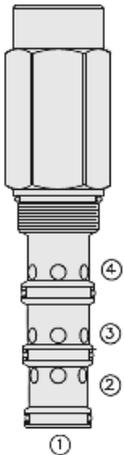




## Overview



### Description

The PD42-M45 is a screw-in, cartridge style, pilot operated, spool-type hydraulic directional valve.

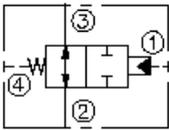
### Operation

In neutral position the valve allows flow from port 2 to 3, bidirectionally. On remote pilot signal at port 1, the valve's spool shifts to block flow from port 2 to 3. 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

- Rated for 345 bar (5000 psi) operating pressure (polyurethane seals required).
- Hardened spool and cage for long life.
- Optional sealed pilot
- Industry-common ISO cavity.

## Symbol



## Ratings

### Pressure Ratings

Pressure rating	345 bar (5000 psi)
Proof pressure	690 bar (10000 psi)
Burst pressure	1034 bar (15000 psi)

### Flow Ratings

Flow rating	265 lpm (70 gpm)
Maximum internal leakage	245 ml/min (15 in <sup>3</sup> /min) spool 345 bar (5000 psi)

**- Note:** At zero leakage from port 1 to 2 with sealed

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	<b>- Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	<b>- Note:</b> With viton 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 70 °C (-40 to 160 °F)	

## Operating Parameters

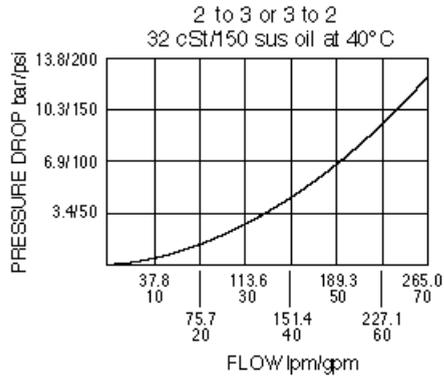
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

## Properties

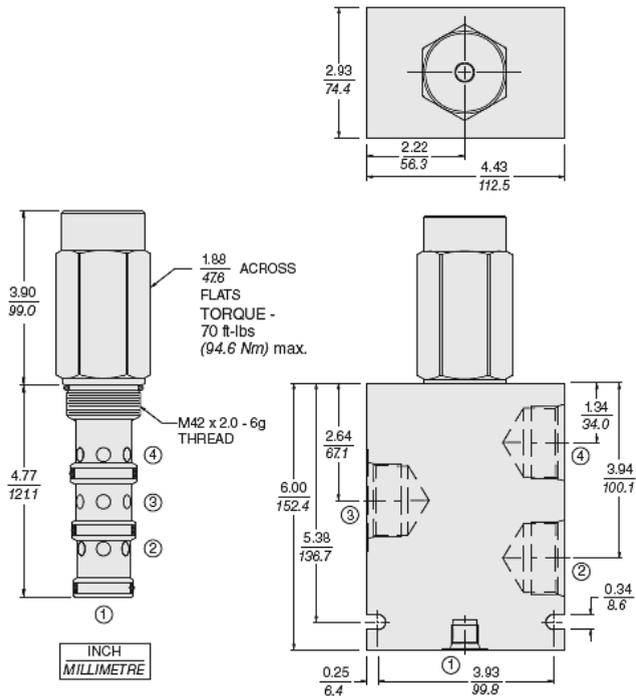
Unit weight	1.8 kg (4.0 lb)
Internal wetted surface area	64516 mm <sup>2</sup> (100.0 in <sup>2</sup> )



## Performance



## Dimensions



## Installation Specifications

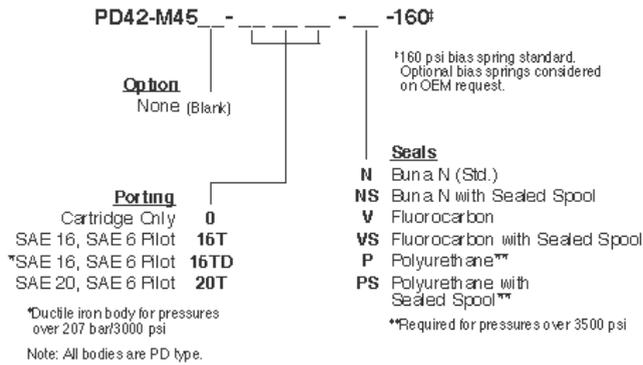
Cavity	VC42-M4
Cartridge installation torque	89 to 102 N-m (65 to 75 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK42-4X-MMM	- <b>Note:</b> (x = seal option)
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## Order Code



### Model Options

#### PD42-M45-H-J-R

#### 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