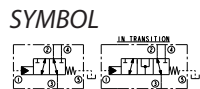
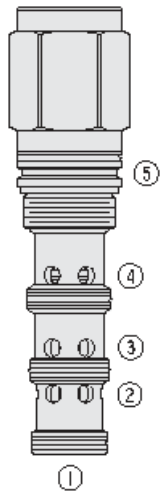


Piloted directional valve

Overview



Description

The PD42-S50X 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 port 3 bidirectionally, while port 4 is blocked. On remote pilot signal at port 1, the valve's spool shifts to allow flow from port 3 to port 4, while blocking flow to port 2. Since port 5 is common to the spring chamber, pressure on port 5 will directly (1:1) affect the pilot pressure required and must be added to the bias spring value. Flow rates for sealed spool options when shifted to connect different directions are diminished by added friction (refer to flow rating table).

Ratings

Pressure Ratings

Pressure rating: 5000 psi [345 bar]

Flow Ratings

Flow rating: 70 gpm [265 lpm]

24 gpm [91 lpm] note: 2-3 and 3-2 with spring option 100, ns, vs, ps seal option

Temperature Ratings

Operating fluid temperature: -40 °f to 212 °f [-40 °c to 100 °c] note: Buna N

-15 °f to 400 °f [-26 °c to 204 °c] note: Fluorocarbon

-65 °f to 225 °f [-54 °c to 107 °c] note: Polyurethane & urethane

Storage temperature: -40 °f to 160 °f [-40 °c to 70 °c]

Ambient temperature: -40 °f to 160 °f [-40 °c to 70 °c]

Flow Ratings

Maximum internal leakage: 245 ml/min (15 in³/min) note: At 345 bar (5000 psi)

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

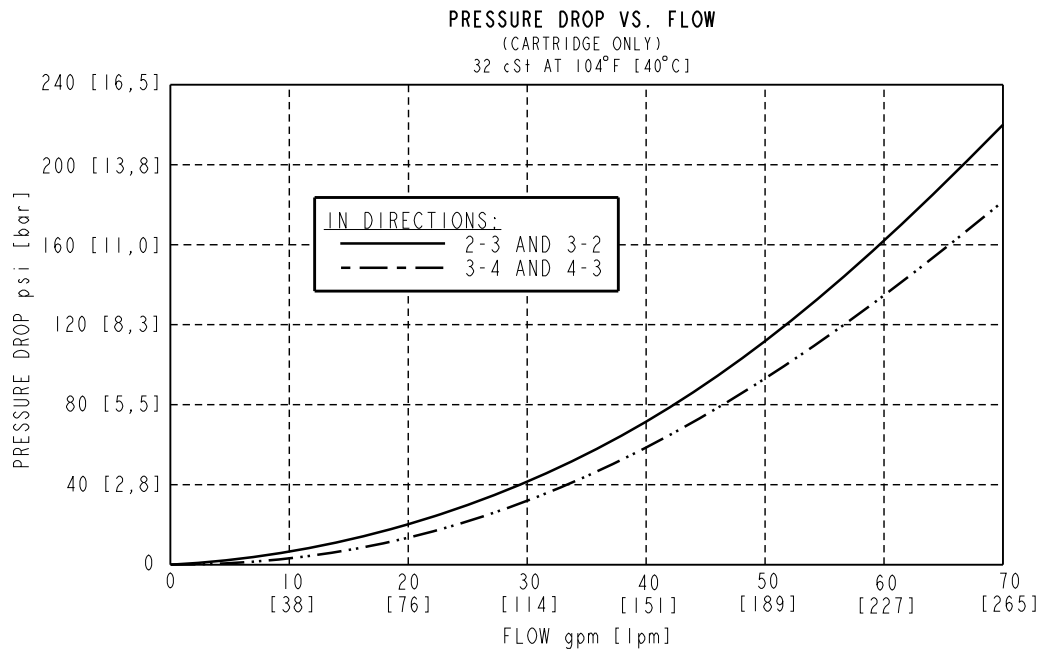
Properties

Unit weight: 3.4 lb [1.6 kg]

Internal wetted surface area: 123 in² [794 cm²]

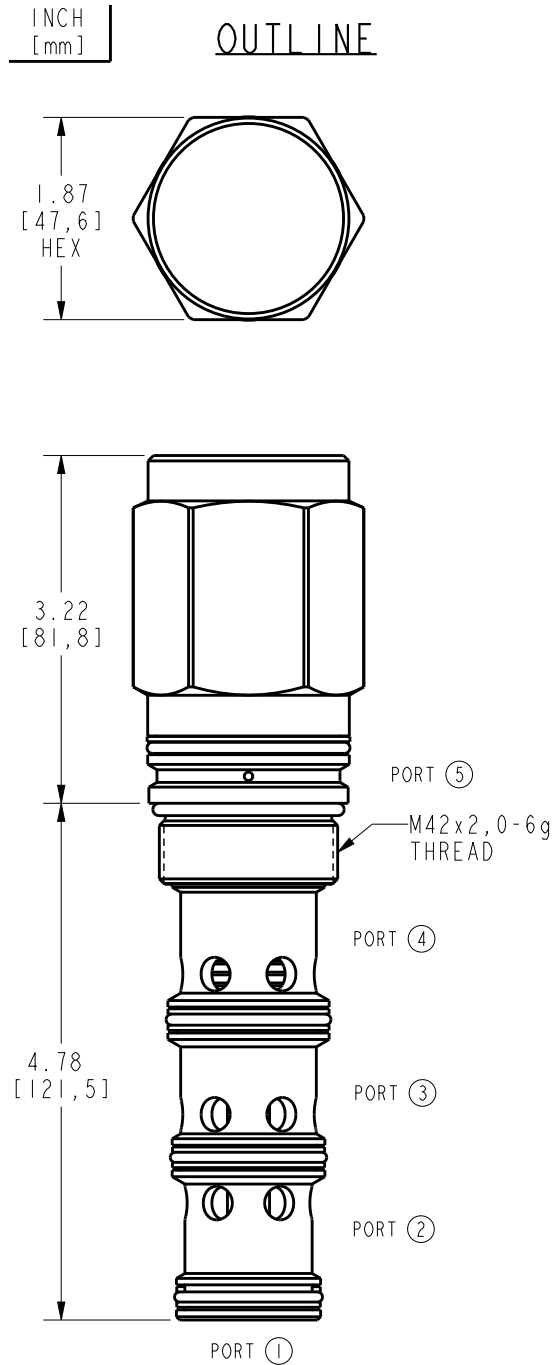
Piloted directional valve

Performance



Piloted directional valve

Dimensions



ALL DIMENSIONS ARE FOR REFERENCE ONLY.

Installation Specifications

Cavity: VC42-S5

Cartridge installation torque: 65-75 ft-lb [88.1-101.7 N-m]

Orientation restriction: None

Piloted directional valve

Accessories

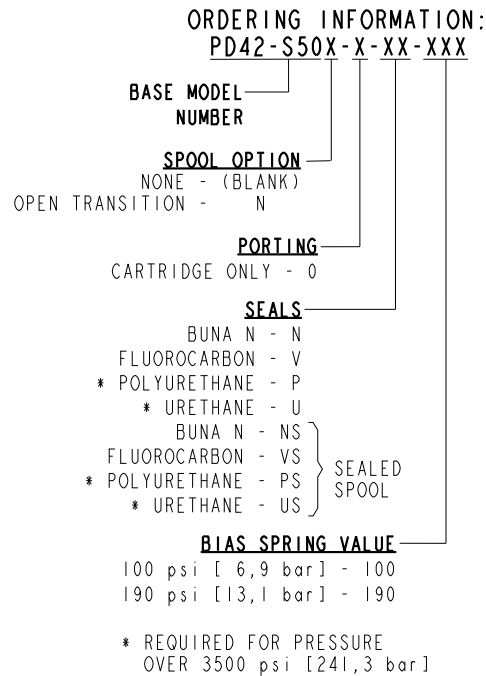
Seal kit: SK42-S5N-BMMM note: Buna-N

SK42-S5V-BMMM note: Fluorocarbon

SK42-S5P-BMMM note: Polyurethane

SK42-S5U-O000 note: Urethane

Order Code



Model Options

PD42-S50B-H-J-R

B Spool Option

CODE	DESCRIPTION
BLANK	Standard
N	Normally Open in Transition

H Line Body

CODE	DESCRIPTION
0	No Body

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

Piloted directional valve

R Spring

CODE	DESCRIPTION
100	100 psi Bias Spring
190	190 psi Bias Spring