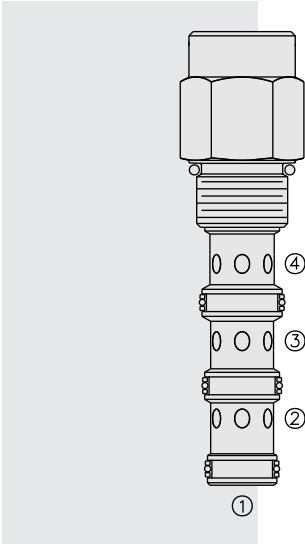


PD12-42 Piloted 3-Way Spool, Internal Vent



DESCRIPTION

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

OPERATION

In neutral (unpiloted), the **PD12-42** allows flow from ③ to ② bidirectionally while ④ is blocked.

On remote pilot signal at ①, the valve shifts to open from ③ to ④, while blocking flow at ②.

Since ④ is common to the spring chamber, pressure on ④ will directly (1:1) affect the pilot pressure required, and must always be added to the bias spring value.

Note: Consult factory for applications where bi-directional flow is required when the valve is in the piloted position.

FEATURES

- Hardened spool and cage for long life.
- Cost effective cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 420 bar (6090 psi)

Flow: See Performance Chart

Internal Leakage: 115 cc/minute (7 cu. in./minute) max. at 207 bar (3000 psi)

Pilot Pressure Required Using 7.6 bar (110 psi) Spring:

To Spool Crossover: 7.6 bar (110 psi)

To Full Spool Shift: 9.1 bar (132 psi)

Oil Volume Required to Full Shift: 1.32 cc (0.08 cu. in.)

Temperature: -40 to 120°C with standard Buna seals

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

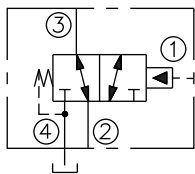
Cavity: VC12-4; See page 9.112.2

Cavity Tool: CT12-4XX; See page 8.600.1

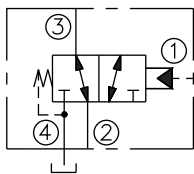
Seal Kit: SK12-4X-MMM; See page 8.650.1

SYMBOLS

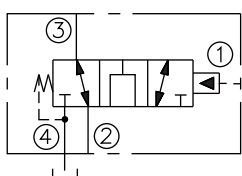
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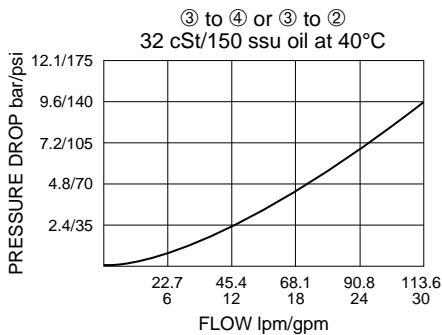
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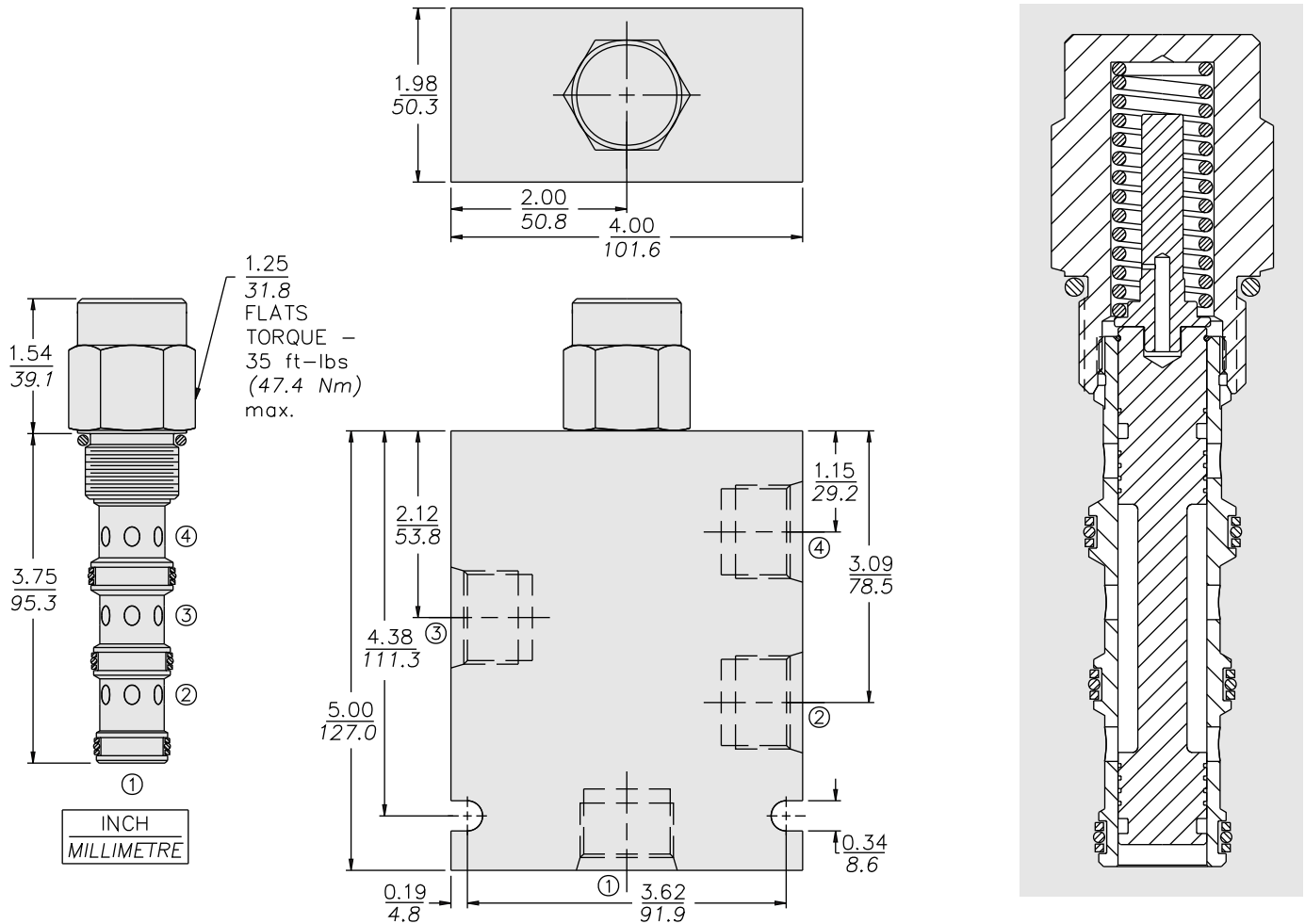
OPEN TRANSITION:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.28 kg. (0.61 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body: Weight: 1.5 kg. (3.3 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.012.1

TO ORDER

PD12-42		-	-	-
Option	None (Blank)			
Open Transition	N			
Porting				
Cartridge Only	0			
SAE 10	10T			
SAE 12	12T			
Bias Spring				
60	4.1 bar (60 psi)			
110	7.6 bar (110 psi)			
170	11.7 bar (170 psi)			
	Optional bias springs considered on OEM request.			
Seals				
N	Buna N (Std.)			
NS	Buna N with Sealed Spool			
V	Fluorocarbon			
VS	Fluorocarbon with Sealed Spool			