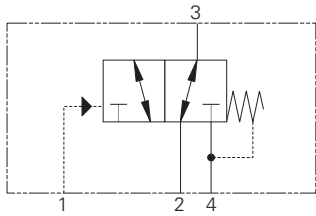


# PTS12-10 - Pilot to Shift Valve

Pilot operated, directional control valve  
30 L/min (8 USgpm) • 350 bar (5000 psi)



## Operation

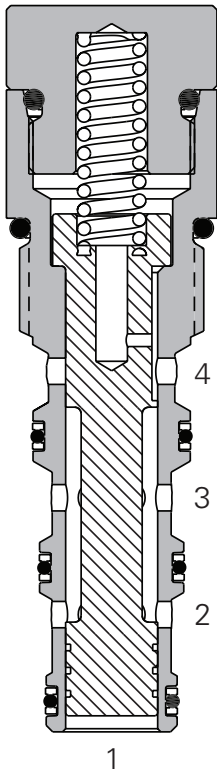
This valve allows flow between ports 2 and 3 while blocking port 4 until sufficient pressure has been applied to port 1 and the spring bias is overcome.

At this time, flow is directed between port 3 and port 4 while blocking port 2. During the cross-over transition, all ports are blocked. The spring chamber for this valve is externally vented to port 4.

Hardened, ground and honed sleeve and spool for low internal leakage. Working pressure 350 bar.

## Features

## Sectional View



## Performance Data

### Ratings and Specifications

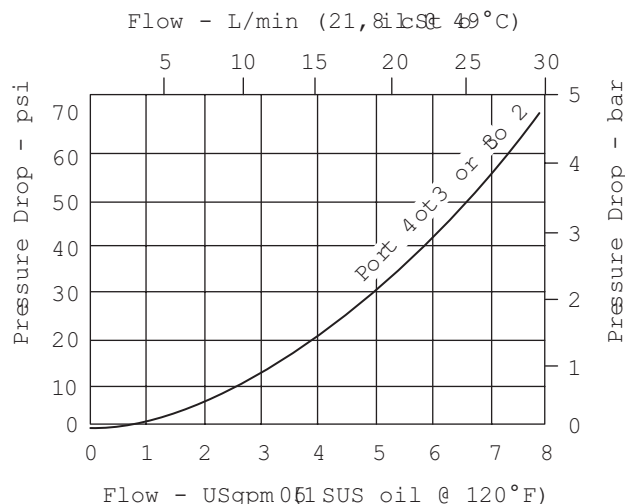
Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)

Typical application pressure (all ports)	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow	30 L/min (8 USgpm)
Internal leakage	250 cc/min (15in <sup>3</sup> /min) @ 350 bar (5000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Pilot pressures	40 - 2,75 bar (40 psi) 80 - 5,5 bar (80 psi) 160 - 11,0 bar (160 psi)
Pilot displacement volume	0,49 cm <sup>3</sup> (0.02 in <sup>3</sup> )
Cavity	C-10-4
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness code 18/16/13
Standard housing materials	Aluminum, Steel
Weight cartridge only	0,14 kg (0.32 lbs)
Seal kit	889625 (Buna-N), 566080 (Viton®)

Viton is a registered trademark of E.I. DuPont

## Pressure Drop Curves

### Cartridge only



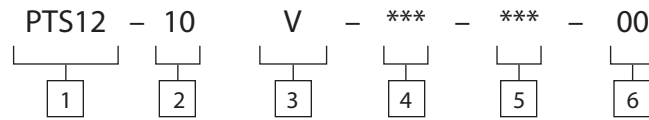
## Description

This is a 3-way 2 position, high pressure pilot operated, directional control valve ideal for selecting a function when the pilot pressure is applied or removed.

# PTS12-10 - Pilot to Shift Valve

Pilot operated, directional control valve  
30 L/min (8 USgpm) • 350 bar (5000 psi)

## Model Code



### 1 Function

PTS12 - Pilot to shift valve

### 2 Size

10 - 10 size

### 3 Seals

Blank - Buna-N  
V - Viton®

### 4 Port Size

0 - Cartridge only

Code	Port Size	Housing Number
0	Fatigue rated	Aluminum
		Steel
A2G	1/4" BSPP	02-185804
A3G	3/8" BSPP	02-185805
A6H	SAE 6	02-185802
A8H	SAE 8	02-185803
S2G	1/4" BSPP	02-175139
S3G	3/8" BSPP	02-175140
S6T	SAE 6	02-175137
S8T	SAE 8	02-175138

See section J for housing details.

### 5 Pilot to shift (nominal)

40 - 2,75 bar (40 psi)  
80 - 5,5 bar (80 psi)  
120 - 8,3 bar (120 psi)

### 6 Special features

00 - Non (Only required if valve has special features, omitted if "00")

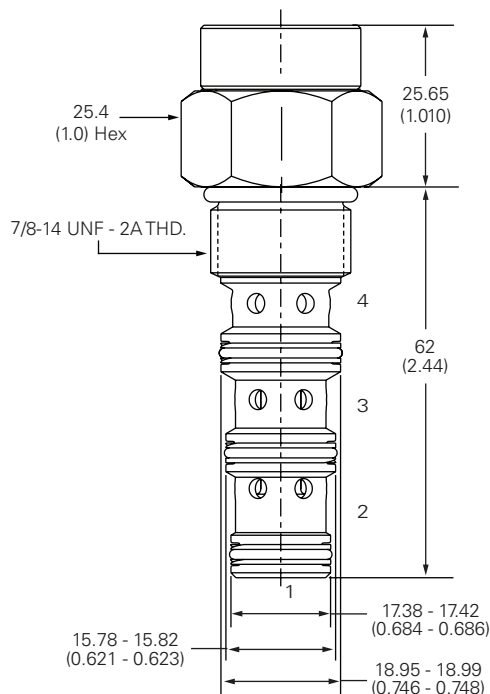
## Dimensions

mm (inch)

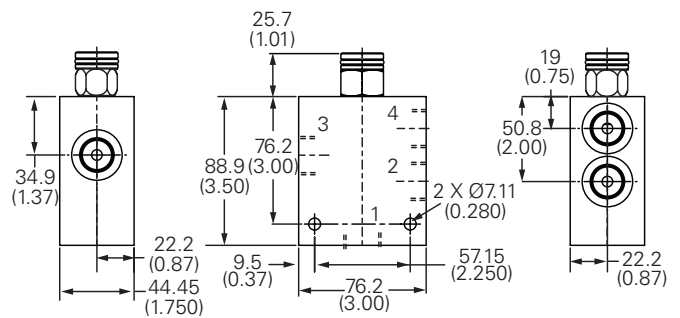
Torque cartridge in aluminum housing 47-54 Nm (35-40 ft. lbs)

Torque cartridge in steel housing 68-75 Nm (100-110 ft. lbs)

### Cartridge Only



### Installation Drawing (Steel)



### WARNING

Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings must be used for operating pressures above 210 bar (3000 psi).