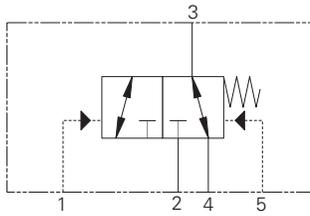


# PTS9-12 - Pilot to Shift Valve

Pilot operated, directional control valve  
76 L/min (20 USgpm) • 280 bar (4000 psi)



## Operation

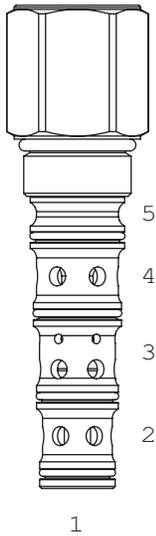
This valve allows flow between ports 3 and 4 while blocking port 2 until sufficient pressure has been applied to port 1 and the spring bias is overcome.

At that time flow is directed between ports 3 and 2 while blocking port 4. During the cross-over transition, all ports are open. The spring chamber for this valve is vented to port 5.

## Features

Hardened, ground and honed sleeve and spool for low internal leakage.

## Sectional View



## Performance Data

### Ratings and Specifications

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

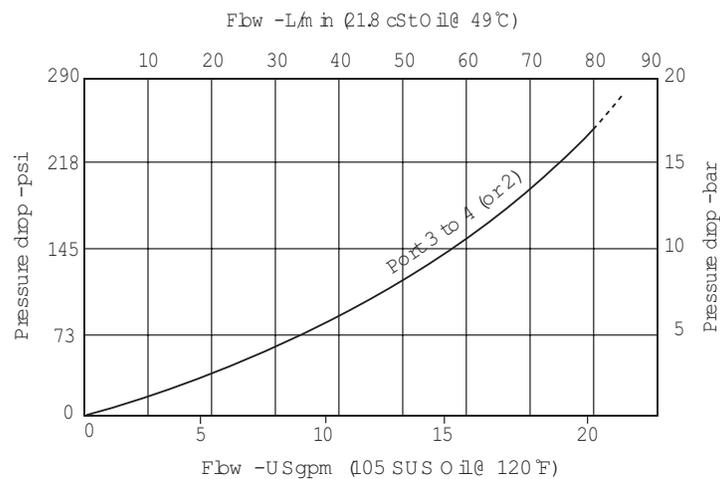
Typical application pressure (all ports)	280 bar (4000 psi)
Cartridge fatigue pressure (infinite life)	280 bar (4000 psi)
Rated flow	76 L/min (20 USgpm)
Transition	All ports open
Internal leakage, port 2 to port 1	164 cc/min (10 in <sup>3</sup> /min) @ 210 bar (3000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Cavity	C-12-5S
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20 etc.
Filtration	Cleanliness code 18/16/13
Standard housing material	Aluminum or steel
Weight cartridge only	0,36 kg (0.79 lbs)
Seal kit	(Urethane) 202914-921

## Description

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

## Performance Characteristics

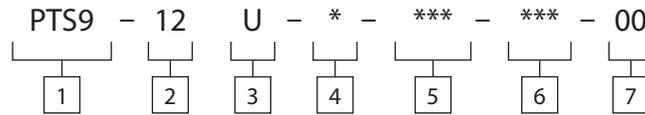
### Cartridge only



# PTS9-12 - Pilot to Shift Valve

Pilot operated, directional control valve  
76 L/min (20 USgpm) • 280 bar (4000 psi)

## Model Code



**1** Function  
PTS9 - Pilot to shift valve

**2** Size  
8- C-12-5S cavity

**3** Seal Material  
U- Urethane (standard)

**4** Body  
0- Cartridge only  
A- Aluminum  
S- Steel

**5** Port Size

Code	Port Size		Housing Number	
	Port 2, 3 & 4	Port 1 & 5	Aluminum	Steel
000	No Body	-	-	-
12T	SAE 12	SAE 4	4998820-002	4998821-002
06G	3/4" BSPP	1/4" BSPP	4998820-004	4998821-004

See section J for housing details.

**6** Shift Pressure  
075 - 5,2 bar (75 psi)  
110 - 7,6 bar (110 psi)

**7** Special Features  
00 - None  
(Only required if valve has special features, omitted if "00")

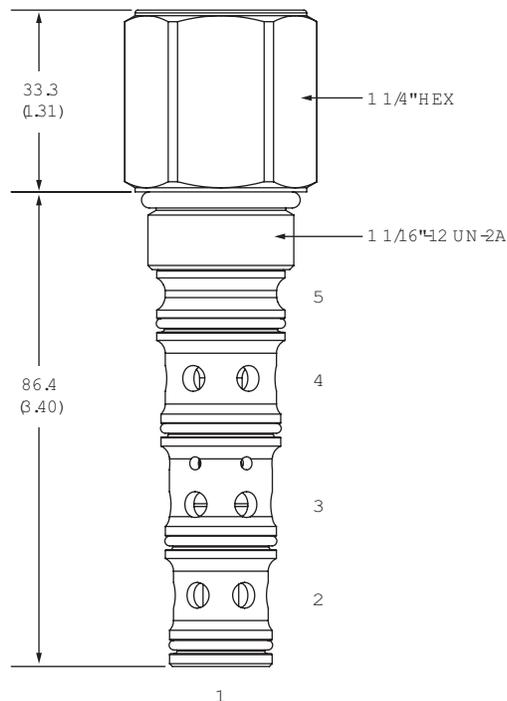
## Dimensions

mm (inch)

Cartridge Only

Torque cartridge in housing:

A - 81-95 Nm (60-70 ft lbs)  
S - 102-115 Nm (75-85 ft lbs)



### 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).