# Directional Control Valves

# PTS12-16

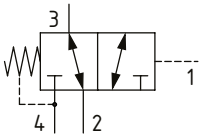
Directional Control Valve, 3-Way, Spool Type, Hydraulic Pilot, Internal Drain

**350 bar [5000 psi] • 132 l/min [35 US gpm]**

## DESCRIPTION AND OPERATION

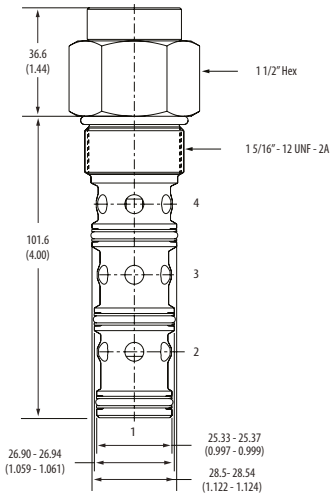
This is a 3-way, spool type, hydraulically piloted directional control valve with an internal drain. In the normal condition, port 2 is connected to port 3 with port 4 blocked. Pilot pressure at port 1 will cause the valve to shift, connecting port 3 to port 4 with port 2 blocked. During the cross-over transition all ports are blocked. Due to the internal hydraulic vent, the pilot pressure required shift the valve is dependent on the pressure in port 4, which would normally be connected to tank.

## SCHEMATIC




## DIMENSIONS

mm [in]

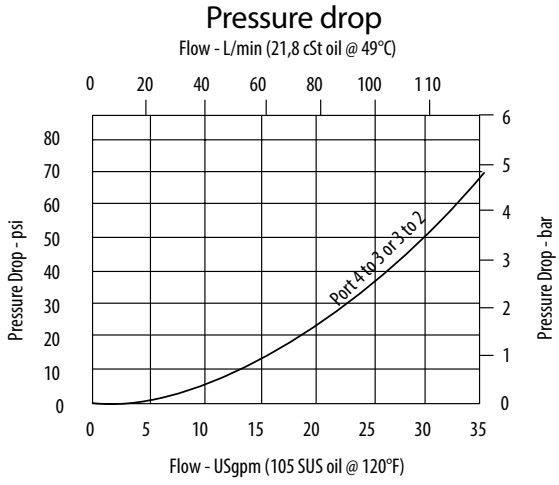



**Installation torque**
**A**-108-122 Nm [80-90 ft. lbs]
**S**-136-149 Nm [100-110 ft. lbs]

## PERFORMANCE DATA

| | |
|---|---|
| **Rated pressure** | **350 bar [5000 psi]** |
| **Rated flow** | **132 l/min [35 US gpm]** |
| Leakage | 550 ml/min [34 in³/min] @ 350 bar [5000 psi] |
| Weight | 0.5 kg [1.12 lb] |
| Cavity | SDC16-4 |

## PERFORMANCE CURVES




## MODEL CODE

**PTS12 - 16 - V - A - 6B - 160**

**Seal Option**

| Code | Seal Kit |
|---|---|
| **Omit**-Buna-N | 889634 |
| **V**-Viton | 889638 |

**Housing Material**

**Omit**-No housing
**A**-Aluminum
**S**-Steel

**Shift Pressure**

| Code | Bar | [Psi] |
|---|---|---|
| **160** | 11.0 | [160] |

**Housing**

| Code | Ports | Aluminum Standard duty | Aluminum Heavy duty | Steel |
|---|---|---|---|---|
| **0** | No housing | | | |
| **10T** | #10 SAE | | | 02-175141 |
| **12T** | #12 SAE | 566411 | | 02-175142 |
| **6B** | 3/4" BSP | 02-175468 | | |
| **10H** | #10 SAE | | 876729 | |
| **12H** | #12 SAE | | 876731 | |
| **4G** | 1/2" BSP | | 876728 | 02-175143 |
| **6G** | 3/4" BSP | | 876730 | 02-175144 |

* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].
* Additional housings available