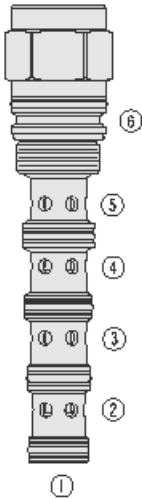




## Overview



### Description

The PD16-S61N is a screw-in, cartridge style, pilot operated, spool-type, hydraulic directional valve.

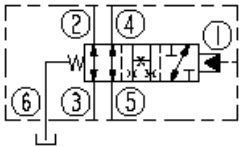
### Operation

In the neutral position flow is allowed between ports 2 and 3 and between ports 4 and 5. On remote pilot signal at port 1 the valve's spool shifts to allow flow between ports 3 and 4, while blocking ports 2 and 5. The spring chamber is vented to the tank through port 6. The vented spring chamber allows the valve to be fully pressurized at ports 1, 2, 3, 4, and 5 without affecting required pilot pressure. Pressure at port 6 will affect required pilot pressure.

### Features

- Hardened spool and cage for long life.
- 60, 110 and 170 psi bias springs available.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating 240 bar (3500 psi)

### Flow Ratings

Flow rating See performance graph

Maximum internal leakage 164 ml/min (10 in<sup>3</sup>/min) - **Note:** At 207 bar (3000 psi)

### Temperature Ratings

|                             |                               |  |
|-----------------------------|-------------------------------|--|
| Operating fluid temperature | -40 to 100 °C (-40 to 212 °F) | - <b>Note:</b> With buna N seals       |
|                             | -26 to 204 °C (-15 to 400 °F) | - <b>Note:</b> With fluorocarbon seals |
|                             | -54 to 107 °C (-65 to 225 °F) | - <b>Note:</b> With polyurethane seals |
| Storage temperature         | -40 to 70 °C (-40 to 160 °F)  |  |
| Ambient temperature         | -40 to 90 °C (-40 to 194 °F)  |  |

## Operating Parameters

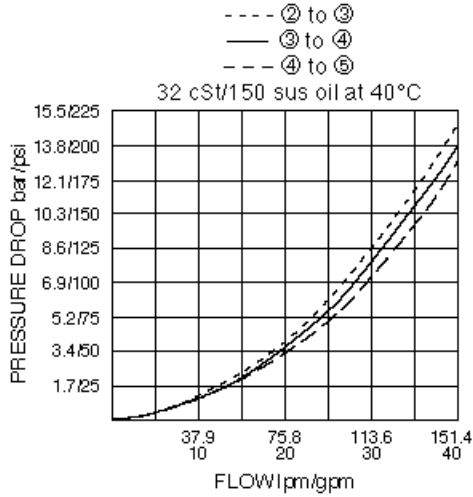
|                                       |  |
|---------------------------------------|--|
| Fluids                                | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range                 | 7.4 to 420 cSt   |
| Maximum operating contamination level | 20/18/14 per ISO 4406  |

## Properties

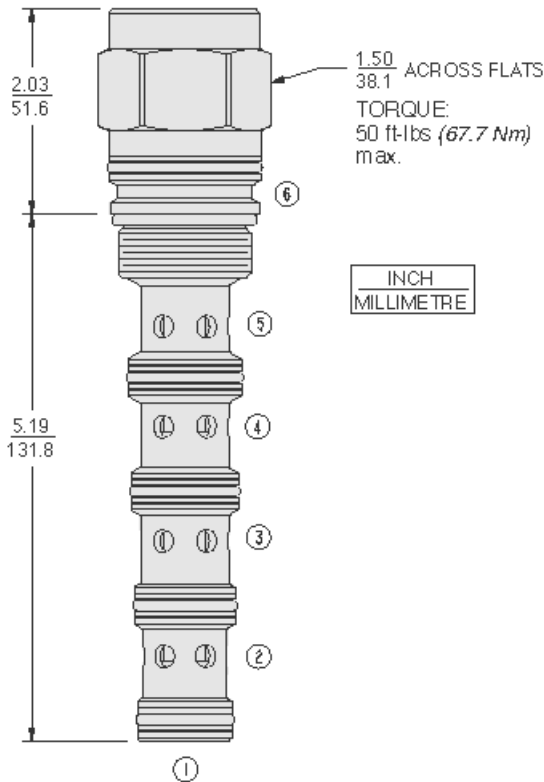
|                              |  |
|------------------------------|--|
| Unit weight                  | 0.74 kg (1.62 lb)                            |
| Internal wetted surface area | 528 cm <sup>2</sup> (81.86 in <sup>2</sup> ) |



## Performance



## Dimensions



## Installation Specifications

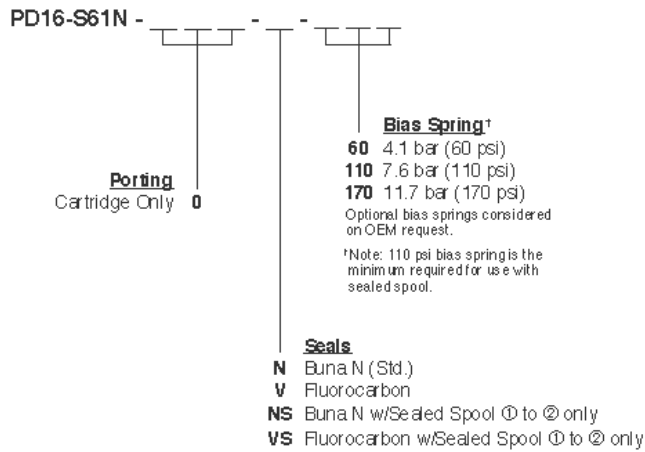
|                               |                                   |
|-------------------------------|-----------------------------------|
| Cavity                        | VC16-S6                           |
| Cartridge installation torque | 62.4 to 73.2 N-m (46 to 54 ft-lb) |
| Maximum allowable torque      | 163 N-m (120 ft-lb)               |
| Orientation restriction       | None                              |

## Accessories

|          |               |                         |
|----------|---------------|-------------------------|
| Seal kit | SK16-6X-BMMMM | - Note: X = seal option |
| Housings |               |                         |



Order Code



| POSITION | CODE | DESCRIPTION                       |
|----------|------|-----------------------------------|
|          |      | PD16-S61N-H-J-R                   |
| H        |      | Line Body                         |
| H        | 0    | No Body                           |
| J        |      | Seal                              |
| J        | N    | Buna-N                            |
| J        | NS   | Buna-N with a Sealed Spool        |
| J        | V    | Fluorocarbon                      |
| J        | VS   | Fluorocarbon with a Sealed Spool  |
| J        | P    | Polyurethane                      |
| J        | PS   | Polyurethane with a Sealed Spool  |
| J        | U    | PPDI Urethane                     |
| J        | US   | PPDI Urethane with a Sealed Spool |
| R        |      | Spring                            |
| R        | 60   | 60 psi Bias Spring                |
| R        | 80   | 80 psi Bias Spring                |
| R        | 110  | 110 psi Bias Spring               |
| R        | 170  | 170 psi Bias Spring               |