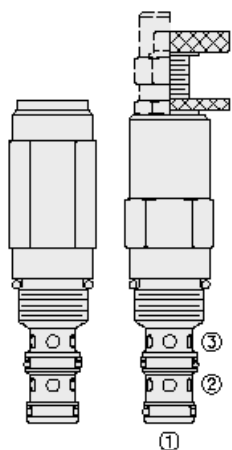




## Overview



### Description

PS10-33X is a screw in, cartridge style, direct acting, spool type hydraulic sequence valve with external pilot.

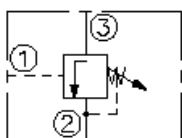
### Operation

The PS10-33X blocks flow from port 3 to port 2 until sufficient pressure is present at port 1 to shift and allow flow from port 3 to port 2.

### Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 240 bar (3500 psi).
- Hardened spool and cage for long life.
- Industry-common size.

### Symbol



## Ratings

### Pressure Ratings

|                   |                                     |                       |
|-------------------|-------------------------------------|-----------------------|
| Pressure rating   | 241.3 bar (3500 psi)                | - <b>Note:</b> Port 1 |
|                   | 103.4 bar (1500 psi)                | - <b>Note:</b> Port 2 |
|                   | 241.3 bar (3500 psi)                | - <b>Note:</b> Port 3 |
| Proof pressure    | 482.6 bar (7000 psi)                |                       |
| Burst pressure    | 965.3 bar (14000 psi)               |                       |
| Sequence pressure | 34.5 to 241.3 bar (500 to 3500 psi) |                       |

### Flow Ratings

|                          |                                    |                                                      |
|--------------------------|------------------------------------|------------------------------------------------------|
| Flow rating              | 18.9 lpm (5 gpm)                   |                                                      |
| Maximum internal leakage | 82 ml/min (5 in <sup>3</sup> /min) | - <b>Note:</b> Max at port 2, 90% of nominal setting |

### 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 viton seals  |
| Storage temperature         | -40 to 70 °C (-40 to 160 °F)  |                                  |
| Ambient temperature         | -40 to 70 °C (-40 to 160 °F)  |                                  |

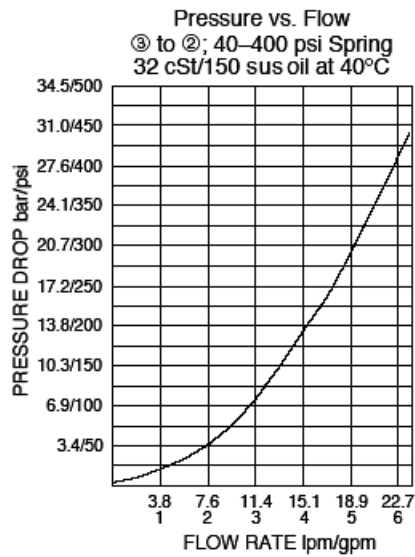
## Operating Parameters

|                                       |                                                        |
|---------------------------------------|--------------------------------------------------------|
| Fluids                                | Mineral based or synthetic with lubricating properties |
| Fluid viscosity range                 | 7.4 to 420 cSt                                         |
| Maximum operating contamination level | 18/16/13 per ISO 4406                                  |

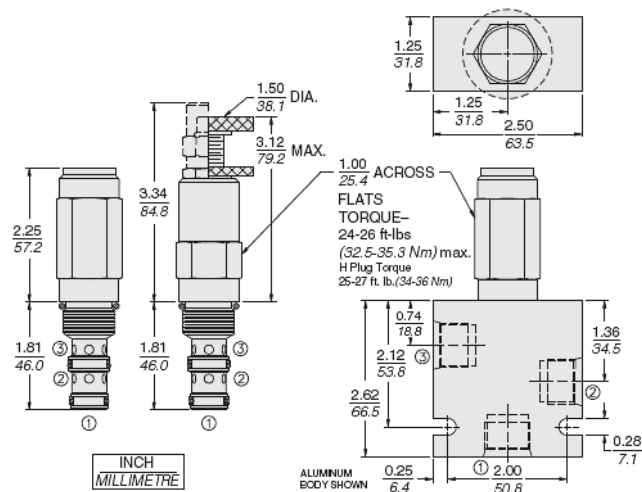
## Properties

|                              |                                             |                        |
|------------------------------|---------------------------------------------|------------------------|
| Unit weight                  | 0.27 kg (0.59 lb)                           | - <b>Note:</b> A       |
|                              | 0.29 kg (0.64 lb)                           | - <b>Note:</b> B       |
|                              | 0.31 kg (0.69 lb)                           | - <b>Note:</b> C I     |
|                              | 0.26 kg (0.57 lb)                           | - <b>Note:</b> F h     |
| Internal wetted surface area | 148 cm <sup>2</sup> (22.9 in <sup>2</sup> ) | - <b>Note:</b> A b c I |
|                              | 163 cm <sup>2</sup> (25.3 in <sup>2</sup> ) | - <b>Note:</b> F h     |

## Performance



## Dimensions



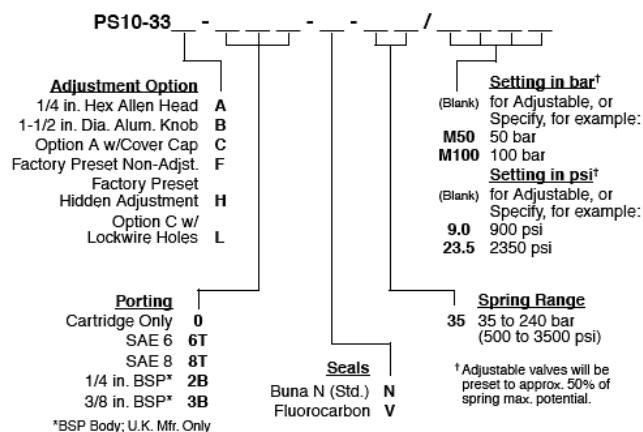
## Installation Specifications

|                               |                                   |
|-------------------------------|-----------------------------------|
| Cavity                        | VC10-3                            |
| Cartridge installation torque | 32.5 to 35.3 N-m (24 to 26 ft-lb) |
| H style plug torque           | 33.9 N-m (25 ft-lb)               |
| Orientation restriction       | None                              |

## Accessories

|          |            |                       |
|----------|------------|-----------------------|
| Seal kit | SK10-3X-TB | - Note: X=seal option |
|----------|------------|-----------------------|

## Order Code



## Model Options

### PS10-33F-H-J-R/S

#### F Adjustment Option

| CODE | DESCRIPTION                                           |
|------|-------------------------------------------------------|
| A    | 1/4" Hex Allen Head                                   |
| B    | 1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob |
| C    | 1/4" Hex Allen Head with Cover Cap                    |
| F    | Factory Preset Non-Adjustable                         |
| H    | Factory Preset Hidden Adjustment                      |
| L    | 1/4" Hex Allen Head with Cover Cap and Lockwire Holes |

#### H Line Body

| CODE | DESCRIPTION                |
|------|----------------------------|
| 0    | No Body                    |
| 6T   | Aluminum SAE 6             |
| 8T   | Aluminum SAE 8             |
| 6TD  | Ductile Iron SAE 6         |
| 8TD  | Ductile Iron SAE 8         |
| 3B   | Aluminum BSPP 3/8" (3)     |
| 3BD  | Ductile Iron BSPP 3/8" (3) |

#### J Seal

| CODE | DESCRIPTION   |
|------|---------------|
| N    | Buna-N        |
| V    | Fluorocarbon  |
| P    | Polyurethane  |
| U    | PPDI Urethane |

#### R Spring

| CODE | DESCRIPTION                                      |
|------|--------------------------------------------------|
| 35   | 34.5 to 241.3 bar (500 to 3500 psi) Spring Range |

#### S Setting

| CODE | DESCRIPTION                      |
|------|----------------------------------|
| MXXX | Spring Setting in XXX bar        |
| XX   | Spring Setting in XX psi (x 100) |

