## Overview


(1)

## Description

The PD12-35 is a screw-in, cartridge style, pilot-operated, spool type, normally open, hydraulic directional valve.

## Operation

In neutral position the valve allows flow from port 2 to 3 . The spring chamber is internally vented to port 3. On remote pilot signal at port 1 , the valve's spool shifts to block flow from port 2 to 3 . Pressure on port 3 will directly (1:1) affect the pilot pressure required and must be added to the bias spring value.

## Features

- Hardened spool and cage for long life.
- Industry common cavity.


## Symbol



## Ratings

## Pressure Ratings

Pressure rating 241 bar (3500 psi)

## Temperature Ratings

Operating fluid temperature $\quad-40$ to $120^{\circ} \mathrm{C}\left(-40\right.$ to $\left.248{ }^{\circ} \mathrm{F}\right)$

## Flow Ratings

Maximum internal leakage
$245 \mathrm{ml} / \mathrm{min}\left(5 \mathrm{in}^{3} / \mathrm{min}\right) \quad$ - Note: From port 1 and 2 and from port 2 and 3 (when piloted), at 207 bar ( 3000 psi ) $0 \mathrm{lpm}(0 \mathrm{gpm}) \quad$ - Note: From port 1 and 2 with sealed spool

## Properties

Materials
Unit weight
steel with work surfaces hardened. External surfaces are zinc plated 0.23 kg ( 0.50 lb )

## Performance

2 to 3


## Dimensions



## Installation Specifications

Cavity
Cartridge installation torque

VC12-3
44.7 to $50.2 \mathrm{~N}-\mathrm{m}$ ( 33 to $37 \mathrm{ft}-\mathrm{lb}$ )

## Accessories

SK12-3N-MM SK12-3V-MM SK12-3P-MM

- Note: Buna N
- Note: Viton
- Note: Polyurethane


## Order Code

| PD12-35 - |  |
| :---: | :---: |
| Porting |  |
| Cartidge Conly | 0 |
| SAE8 | 8 T |
| SAE 10 | 10 T |
| SAE 12 | 12T |
| 1/2 in. BSP* | 4B |
| $3 / 4 \mathrm{in}$. BSP* | 6B |
| *BSP Body U.K. Mfr Only |  |

Model Options
PD12-35-H-J-R
H Line Body
CODE DESCRIPTION
0 No Body
8T Aluminum SAE 8
10T Aluminum SAE 10
12T Aluminum SAE 12
12TD Ductile Iron SAE
J Seal
CODE DESCRIPTION
$N$ Buna-N
NS Buna-N with a Sealed Spool
V Fluorocarbon
VS Fluorocarbon with a Sealed Spool
P Polyurethane
PS Polyurethane with a Sealed Spool
U PPDI Urethane
US PPDI Urethane with a Sealed Spool

## R Spring

CODE DESCRIPTION

| 110 | 110 psi Bias <br> Spring |
| ---: | :--- |
| 170 | 170 psi Bias <br> Spring |

