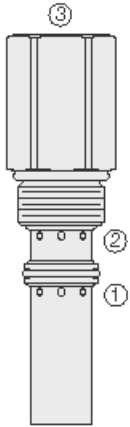




## Overview



### Description

PRES50-30 is a screw in, cartridge style, direct-acting, spool-type, hydraulic pressure reducing/relieving valve designed to act as a pressure regulating device for secondary circuits. It is intended for use in stable input flow circuits.

### Operation

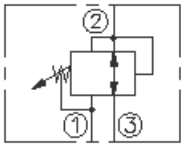
In its steady state, the PRES50-30 allows flow to pass bidirectionally from port 3 to port 2 with the spring chamber constantly drained at port 1. Upon attainment of a predetermined pressure at port 2, the cartridge shifts to block flow at port 3, thereby regulating pressure at port 2. In this mode, the valve will also relieve port 2 to port 1 at a variable value over the set reducing pressure.

**note:** tank port pressure is additive to valve setting at ratio of 1:1.

### Features

- High Pressure steel adapter on inlet port 3 withstands up to 345 bar (5000 psi).
- Hardened spool and cage for long life.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	344.7 bar (5000 psi) 137.9 bar (2000 psi) 68.9 bar (1000 psi)	- <b>Note:</b> Port 3 - <b>Note:</b> Port 2 - <b>Note:</b> Port 1
Proof pressure	551.6 bar (8000 psi)	
Burst pressure	1379 bar (20000 psi)	
Regulated pressure range	31 to 55.2 bar (450 to 800 psi)	- <b>Note:</b> At 0.95 lpm (0.25 gpm)

### Flow Ratings

Flow rating	11.4 lpm (3 gpm)	
Maximum internal leakage	131 ml/min (8 in <sup>3</sup> /min)	- <b>Note:</b> To port 1

### 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
	-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 70 °C (-40 to 160 °F)	

## Operating Parameters

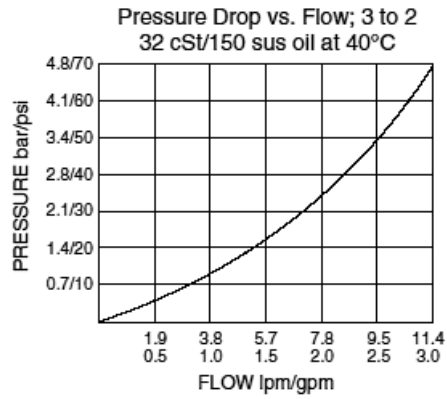
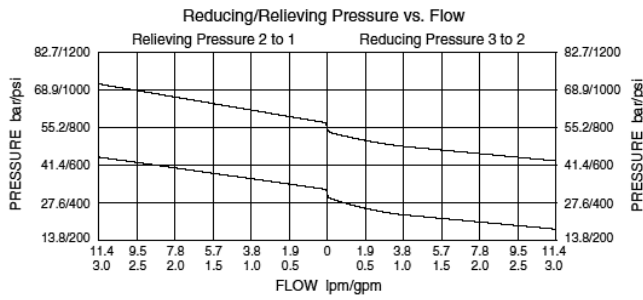
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

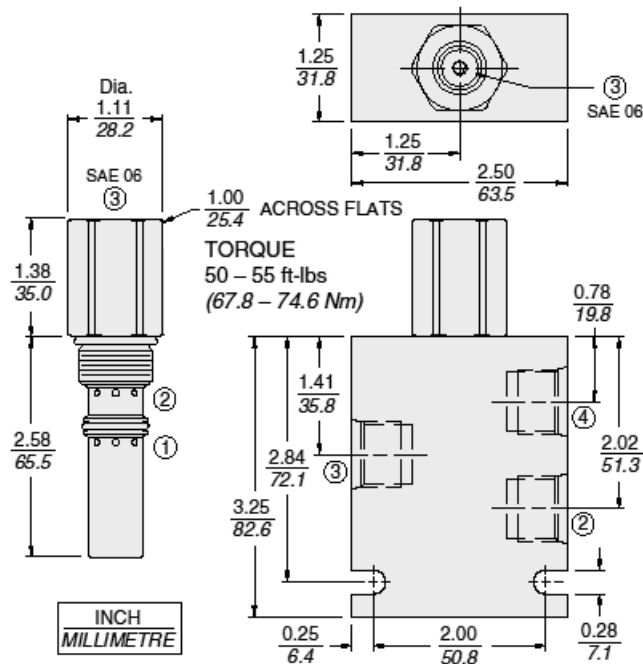
Unit weight	0.22 kg (0.49 lb)
Internal wetted surface area	158 cm <sup>2</sup> (24.5 in <sup>2</sup> )



## Performance



## Dimensions



Note: Either body port 2 or body port 3 can be blocked.

## Installation Specifications

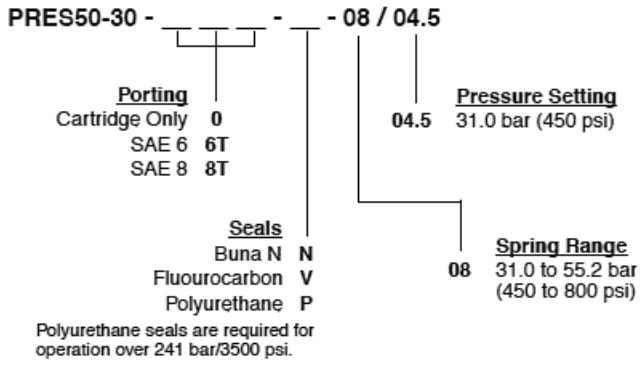
Cavity	VC98-3	
Cartridge installation torque	67.8 to 74.6 N-m (50 to 55 ft-lb)	
Orientation restriction	31.2 to 36.6 N-m (23 to 27 ft-lb)	<b>- Note:</b> Torque at port 3:
	None	

## Accessories

Seal kit	SK10-2X-O_SPL	<b>- Note:</b> X=seal option
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**Order Code**



**Model Options**

**PRES50-30-H-J-R/S**

**H Line Body**

CODE	DESCRIPTION
0	No Body

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane

**R Spring**

CODE	DESCRIPTION
08	31 to 55.2 bar (450 to 800 psi) Spring Range

**S Setting**

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