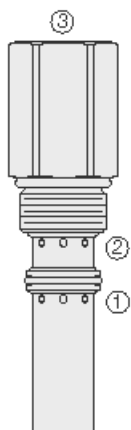




Overview



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

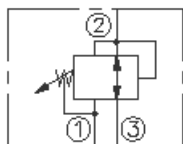
In its steady state, the PRES50-30 allows flow to pass bidirectionally from port 3 to port 2 with the spring chamber constantly drained at port 1. Upon attainment of a predetermined pressure at port 2, the cartridge shifts to block flow at port 3, thereby regulating pressure at port 2. In this mode, 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)	- Note: Port 3
	137.9 bar (2000 psi)	- Note: Port 2
	68.9 bar (1000 psi)	- Note: 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)	- Note: At 0.95 lpm (0.25 gpm)

Flow Ratings

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

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With viton seals
	-54 to 107 °C (-65 to 225 °F)	- Note: 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

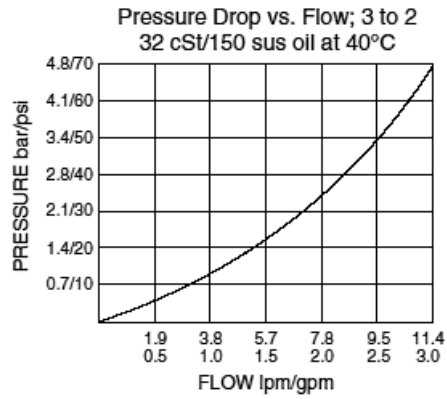
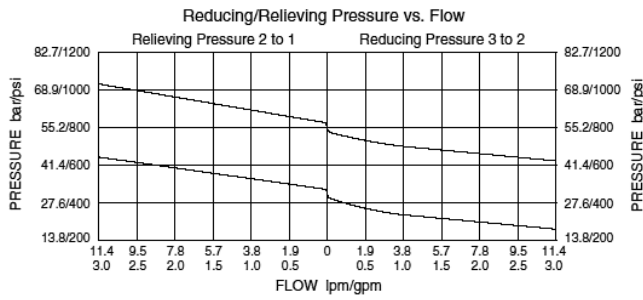
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

Properties

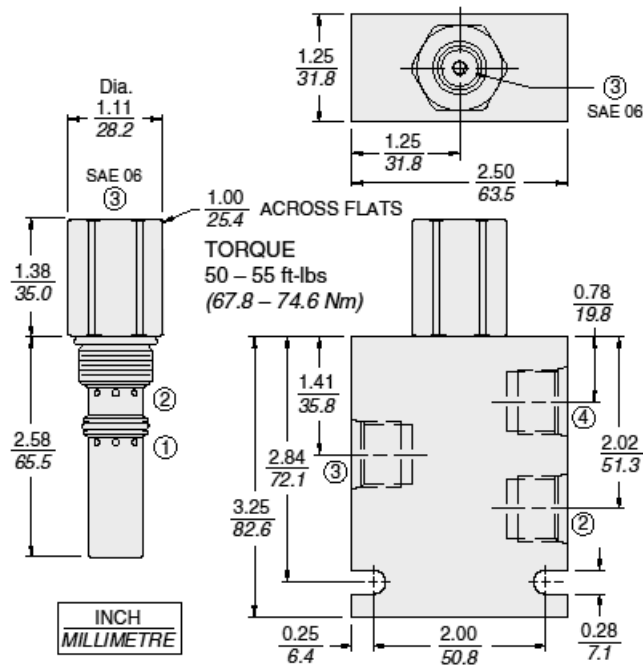
Unit weight	0.22 kg (0.49 lb)
Internal wetted surface area	158 cm ² (24.5 in ²)



Performance



Dimensions



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

Installation Specifications

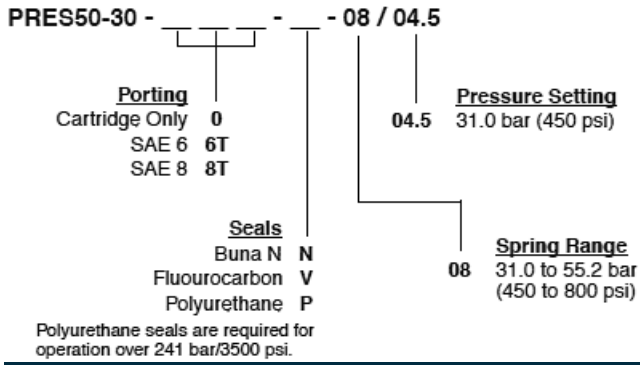
Cavity	VC98-3	
Cartridge installation torque	67.8 to 74.6 N-m (50 to 55 ft-lb) 31.2 to 36.6 N-m (23 to 27 ft-lb)	- Note: Torque at port 3:
Orientation restriction	None	

Accessories

Seal kit	SK10-2X-O_SPL	- Note: X=seal option
Housings		



Order Code



POSITION	CODE	DESCRIPTION
		PRES50-30-H-J-R/S
H		Line Body
H	0	No Body
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
R		Spring
R	08	31 to 55.2 bar (450 to 800 psi) Spring Range
S		Setting
S	MXXX	Spring Setting in XXX bar
S	XX	Spring Setting in XX psi (x 100)