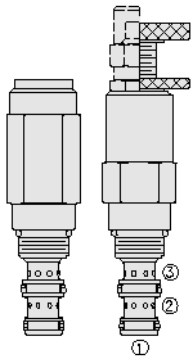
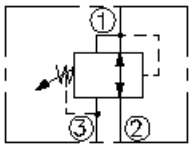
PRESSURE REDUCING/ RELIEVING CARTRIDGE VALVE

Overview



SYMBOL



Description

The PR08-32X is a screw in, cartridge style, direct acting, spool type, hydraulic pressure reducing/ relieving valve with internal pilot and internal spring chamber drain. It is 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 PR08-32X allows flow bidirectionally from port 2 to port 1, with the spring chamber constantly drained at port 3. On attainment of a pre-determined pressure at port 1, the cartridge shifts to block flow at port 2, thereby regulating pressure at port 1. In this mode, the valve will also relieve port 1 to port 3 at a variable value over the set reducing pressure.

Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 152 bar (2200 psi).
- Hardened spool and cage for long life.
- Compact, industry-common size.

Ratings

Pressure Ratings

Pressure rating: 241.3 bar (3500 psi) note: Port 1

241.3 bar (3500 psi) note: Port 2

103.4 bar (1500 psi) note: Port 3

Proof pressure: 517.1 bar (7500 psi)

Burst pressure: 896.3 bar (13000 psi)

Crack pressure defined: Pressure evident at 0.95 lpm (0.25 gpm) attained port 1 to port 2

Flow Ratings

Flow rating: 11.4 lpm (3 gpm)

Maximum internal leakage: 82 ml/min (5 in^3/min)

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 fluorocarbon seals

-54 to 107 °C (-65 to 225 °F) note: With urethane seals

Storage temperature: -40 to 70 °C (-40 to 160 °F)

Ambient temperature: -40 to 70 °C (-40 to 160 °F)

Other Ratings

Corrosion protection: PR08-32X type iii clear zinc plating per ASTM b633 gpr08-32x 960 hr salt spray per ASTM b117

Operating Parameters

Fluids: Mineral based or synthetic with lubricating properties

Fluid viscosity range: 7.4 to 420 cSt

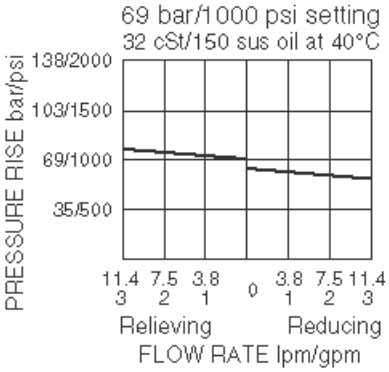
Maximum operating contamination level: 18/16/13 per ISO 4406

PRESSURE REDUCING/ RELIEVING CARTRIDGE VALVE

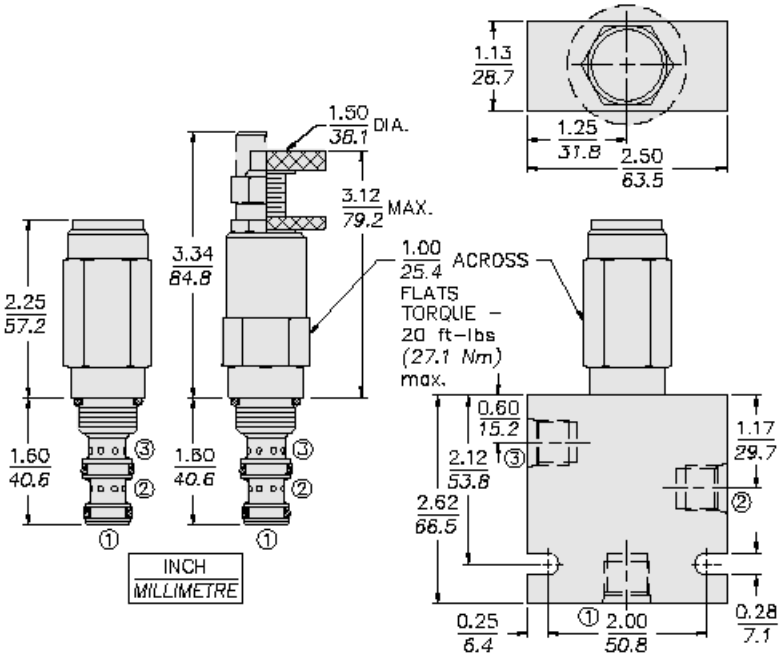
Properties

Unit weight: 0.23 kg (0.51 lb) note: PR08-32A
0.28 kg (0.61 lb) note: Pr08-32c/l
0.25 kg (0.56 lb) note: PR08-32B
0.22 kg (0.48 lb) note: Pr08-32f/h
Internal wetted surface area: 130 cm^2 (20.1 in^2) note: Pr08-32a/b/c/l
140 cm^2 (21.7 in^2) note: Pr08-32f/h

Performance



Dimensions



Installation Specifications

Cavity: VC08-3
08-size-3-way Cavities

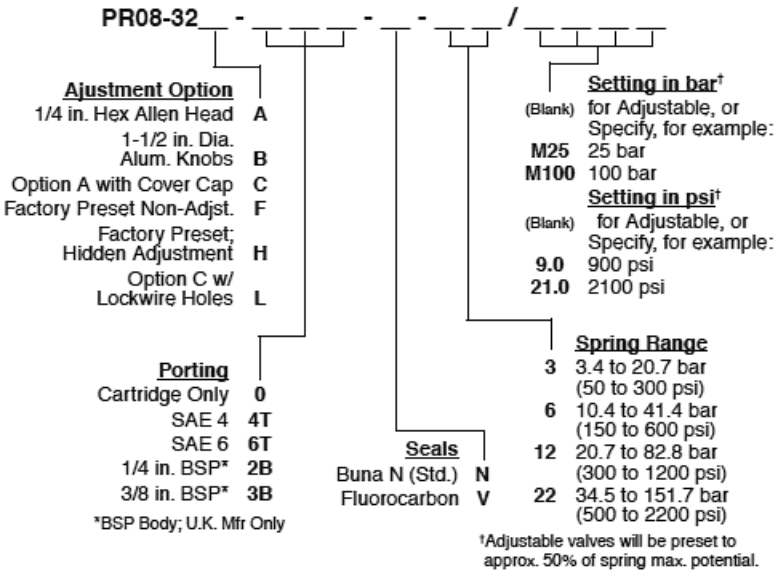
PRESSURE REDUCING/ RELIEVING CARTRIDGE VALVE

Cartridge installation torque: 25.8 to 28.5 N-m (19 to 21 ft-lb)
Maximum allowable torque: 47.5 N-m (35 ft-lb)
H style plug torque: 32.5 to 35.3 N-m (24 to 26 ft-lb)
Orientation restriction: None

Accessories

Seal kit: SK08-3X-BM note: X = N and V seal options
SK08-3U-OO note: U seal option
Seal kit installation instructions
Housings: Available 08-3w valve bodies

Order Code



Model Options

PR08-32F-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
4T	Aluminum SAE 4
6T	Aluminum SAE 6
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

PRESSURE REDUCING/ RELIEVING CARTRIDGE VALVE

J Seal

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

R Spring

CODE	DESCRIPTION
03	3.4 to 20.7 bar (50 to 300 psi) Spring Range
06	6.9 to 41.4 bar (100 to 600 psi) Spring Range
12	20.7 to 82.8 bar (300 to 1200 psi) Spring Range
22	34.5 to 151.7 bar (500 to 2200 psi) Spring Range

S Setting

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