PRESSURE CONTROLS

PR08-32  Pressure Reducing/Relieving

DESCRIPTION
A screw-in, cartridge-style, direct-acting, spool-type, hydraulic pressure reducing/relieving valve with internal pilot and internal spring chamber drain, 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 PR08-32 allows flow to pass bidirectionally from ② to ①, with the spring chamber constantly drained at ③.

On attainment of a pre-determined pressure at ①, the cartridge shifts to block flow at ②, thereby regulating pressure at ①. In this mode, the valve also will relieve ① to ③ at a variable value over the set reducing pressure.

Note: Direct-acting PR series valves may not be suitable for some static load applications. Consult factory.

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.
- Industry common cavity.
- Compact size.

RATINGS
Operating Pressure: 240 bar (3500 psi)
Proof Pressure: 390 bar (5700 psi)
Flow: 11.4 lpm (3 gpm) max.

Internal Leakage ② to ③: 82 cc/minute (5 cu. in/minute) max. at 207 bar (3000 psi) to 90% of nominal setting

Standard Spring Ranges (Reducing Function):
3.4 to 20.7 bar (50 to 300 psi);
10.4 to 41.4 bar (150 to 600 psi);
20.7 to 82.8 bar (300 to 1200 psi);
34.5 to 151.7 bar (500 to 2200 psi)

Temperature: -40 to 120°C with standard Buna seals

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

Cavity: VC08-3; See page 9.108.1

Cavity Tool: CT08-3XX; See page 8.600.1

Seal Kit: SK08-3X-BM; See page 8.650.1

USASI/ISO:

PERFORMANCE  (Cartridge Only)

w/ Nominal 69 bar/1000 psi Setting 32 cSt/150 ssu oil at 40°C

<table>
<thead>
<tr>
<th>PRESSURE RISE bar/psi</th>
<th>FLOW RATE lpm/gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>207/3000</td>
<td>172/2500</td>
</tr>
<tr>
<td>138/2000</td>
<td>103/1500</td>
</tr>
<tr>
<td>69/1000</td>
<td>35/500</td>
</tr>
</tbody>
</table>

Relieving  Reducing

FLOW RATE lpm/gpm
MATERIALS

Cartridge: Weight: 0.25 kg. (0.55 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and back-ups

Standard Ported Body: Weight:
0.27 kg. (0.60 lbs.) Anodized
high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi).
Ductile iron bodies available;
dimensions may differ.
See page 8.008.1

TO ORDER

Adjustment Option
A 1/4 in. Hex Allen Head
B 1-1/2 in. Dia.
C Alum. Knobs
D Option A with Cover Cap
E Factory Preset Non-Adjust.
F Factory Preset;
G Hidden Adjustment
H Option C w/ Lockwire Holes

Porting
Cartridge Only 0
SAE 4 4T
SAE 6 6T
1/4 in. BSP 2B
3/8 in. BSP 3B
*BSP Body; U.K. Mfr Only

Seals
Buna N (Std.) N
Fluorocarbon V

Setting in bar
(Blank) for Adjustable, or
Specify, for example:
M25 25 bar
M100 100 bar

Setting in psi
(Blank) for Adjustable, or
Specify, for example:
9.0 900 psi
21.0 2100 psi

Spring Range
3 3.4 to 20.7 bar
(50 to 300 psi)
6 10.4 to 41.4 bar
(150 to 600 psi)
12 20.7 to 82.8 bar
(300 to 1200 psi)
22 34.5 to 151.7 bar
(500 to 2200 psi)

*Adjustable valves will be preset to approx. 50% of spring max. potential.