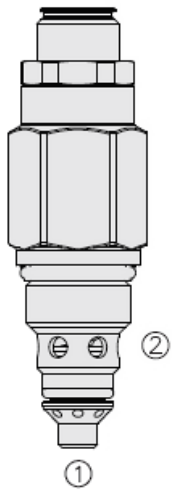




Overview



Overview

The RVD58-20 is a screw-in, cartridge style, direct acting poppet type relief valve intended for use as a pressure limiting device for common hydraulic circuit protection.

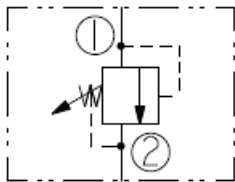
Operation

The RVD58-20 blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the poppet off its seat. The cartridge offers fast response to load changes in circuits requiring low hysteresis, low pressure rise, and low internal leakage.

Features

- Compact and economical
- Dynamic response to pressure surges
- Hardened poppet and cage for long life
- Optional spring ranges to 350 bar (5076 psi)
- EEmbossed QR code provides serial number
- High durometer Buna and Fluorocarbon seals
- Optional cap

Symbol



Ratings

Pressure Ratings

| | | |
|------------------------|--|--------------------------|
| Pressure rating | 350 bar (5076 psi) | - Note: At port 1 |
| | 207 bar (3000 psi) | - Note: At port 2 |
| Proof pressure | 413 bar (10,000 psi) | - Note: Port 1 |
| Burst pressure | 1379 bar (20,000 psi) | - Note: Port 1 |
| Crack pressure defined | pressure evident at at 0.95 lpm (0.25 gpm) | |
| Reseat pressure | Nominal 90% of crack pressure | |

Flow Ratings

| | | |
|--------------------------|-----------------------|--|
| Flow rating | 37.9 lpm (10 gpm) | - Note: Port 1 to 2 at maximum pressure |
| Maximum internal leakage | 0.25 ml/min (5 drops) | - Note: at maximum pressure |

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 polyurethane seals |
| Ambient temperature | -40 to 70 °C (-40 to 160 °F) | |
| Storage temperature | -40 to 70 °C (-40 to 160 °F) | |

Environmental Ratings

| | |
|----------------------|--------------------------------|
| Corrosion protection | 230 H salt spray per ASTM B117 |
|----------------------|--------------------------------|

Operating Parameters

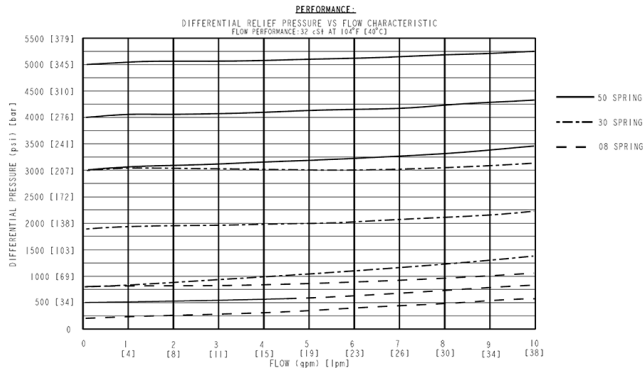
| | |
|---------------------------------------|--|
| Fluids | Mineral based or synthetic with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 18/16/13 per ISO 4406 |



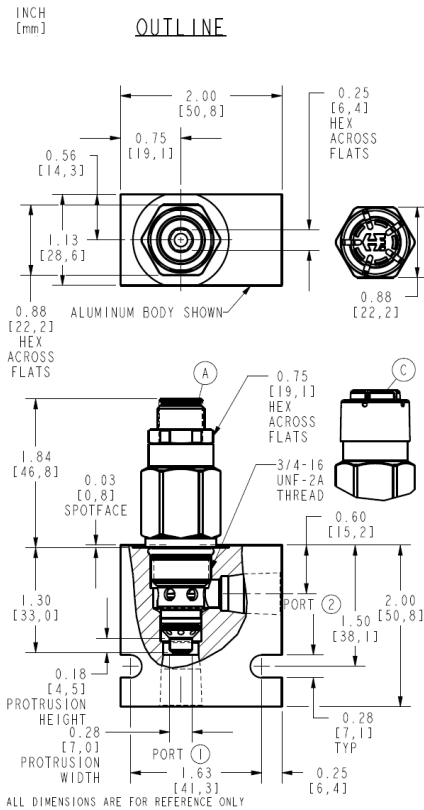
Properties

| | | |
|-----------------------------------|---|-------------------------------|
| Unit weight | 0.13 kg (0.28 lb) | |
| Internal wetted surface area | 89 cm ² (113.8 in ²) | |
| Pressure change per adjuster turn | 37 bar (536 psi) | - Note: Spring code 30 |
| | 65.5 bar (949 psi) | - Note: Spring code 50 |
| | 9.5 bar (138 psi) | - Note: Spring code 80 |

Performance



Dimensions



Installation Specifications

| | |
|-------------------------------|--|
| Cavity | VC08-2B |
| Cartridge installation torque | 44.7 to 50.2 N-m (33 to 37 ft-lb) |
| Adjuster torque | 17.6 N-m (13 ft-lb) - Note: Maximum torque to apply when backing out adjuster |
| Hex nut torque | 13.6 ±1 N-m (10 ±1 ft-lb) |
| Orientation restriction | None |



Accessories

| | | |
|------------------------|------------------|-----------------------------|
| Seal kit | SK08-2HN-O | - Note: Nitrile |
| | SK08-2HV-O | - Note: Fluorocarbon |
| | SK08-2P-O | - Note: Polyurethane |
| Housings | | |
| Black Tamper-proof Cap | Part No. 4618450 | |



Order Code

ORDERING INFORMATION:

RVD58-20X-0-X-XX/XXXX

BASE MODEL NUMBER:ADJUSTMENT OPTIONS:

0.25 [6,4] HEX ALLEN HEAD - A
 OPTION A WITH COVER CAP - C

PORTING:

CARTRIDGE ONLY - 0

SEALS:

BUNA N - N
 FLUOROCARBON - V
 POLYURETHANE - P

SPRING CODE:

200 TO 800 psi - 08
 [13,7 TO 55,1 bar]
 800 TO 3000 psi - 30
 [55,1 TO 206,8 bar]
 3000 TO 5076 psi - 50
 [206,8 TO 350,0 bar]

PRESSURE SETTING:

FOR EXAMPLE:

(IN psi)
 3000 psi-30.0
 (IN bar)
 210 bar-M210

| POSITION | CODE | DESCRIPTION |
|----------|------|--|
| | | RVD58-20F-H-J-R/S |
| F | | Adjustment Option |
| F | A | 1/4 in Allen Head |
| H | | Line Body |
| H | 0 | No Body |
| H | 6T | Aluminum SAE 6 |
| H | 8T | Aluminum SAE 8 |
| H | 8TD | Ductile Iron SAE 8 |
| H | 3B | Aluminum BSPP 3/8" (3) |
| H | 3BD | Ductile Iron BSPP 3/8" (3) |
| J | | Seal |
| J | N | Buna-N |
| J | V | Fluorocarbon |
| J | P | Polyurethane |
| R | | Spring |
| R | 8 | 14 to 55 bar (200 to 800 psi) Spring Range |
| R | 30 | 55 to 207 bar (800 to 3000 psi) Spring Range |
| R | 50 | 207 to 350 bar (3000 to 5075 psi) Spring Range |
| S | | Setting |
| S | MXXX | Spring Setting in XXX bar |
| S | XX | Spring Setting in XX psi (x 100) |