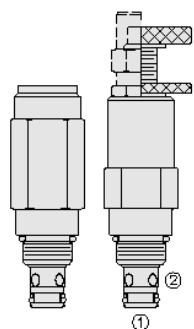
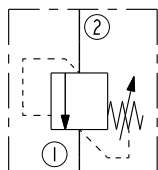


Relief valve cartridge direct acting differential area

Overview



SYMBOL



Description

RV08-22X is a screw in, cartridge style, direct acting, differential area, poppet type, hydraulic relief valve for use as a pressure limiting device in more demanding hydraulic circuits requiring low hysteresis and low internal leakage.

Operation

RV08-22X blocks flow from port 2 to port 1 until sufficient pressure is present at port 2 to force the poppet off its seat.

Ratings

Pressure Ratings

Pressure rating: 3600 psi [248.2 bar]

Proof pressure: 7200 psi [496.4 bar]

Burst pressure: 16168 psi [1037.7 bar]

Control pressure setting: Pressure evident at 0.25 gpm [0.95 lpm]

Flow Ratings

Flow rating: 8 gpm [30.3 lpm] note: At Max pressure

Maximum internal leakage: 5 drops/min [0.25 ml/min] max note: At 75% of nominal setting

Temperature Ratings

Operating fluid temperature: -40 °f to 212 °f [-40 °c to 100 °c] note: With Buna N seals

-15 °f to 400 °f [-26 °c to 204 °c] note: With fluorocarbon seals

-65 °f to 225 °f [-54 °c to 107 °c] note: With polyurethane seals

Storage temperature: -40 °f to 160 °f [-40 °c to 70 °c]

Ambient temperature: -40 °f to 160 °f [-40 °c to 70 °c]

Operating Parameters

Fluids: Mineral based or synthetic with Lubricating properties.

Fluid viscosity range: 7.4-420 cSt

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

Properties

Corrosion protection: Type iii clear zinc plating per ASTM B633 note: RV10-20X

960 hour salt spray per ASTM B117 note: GRV10-20X

Unit weight: 0.48 lb [0.218 kg] note: A, F

Relief valve cartridge direct acting differential area

0.53 lb [0.240 kg] note: B

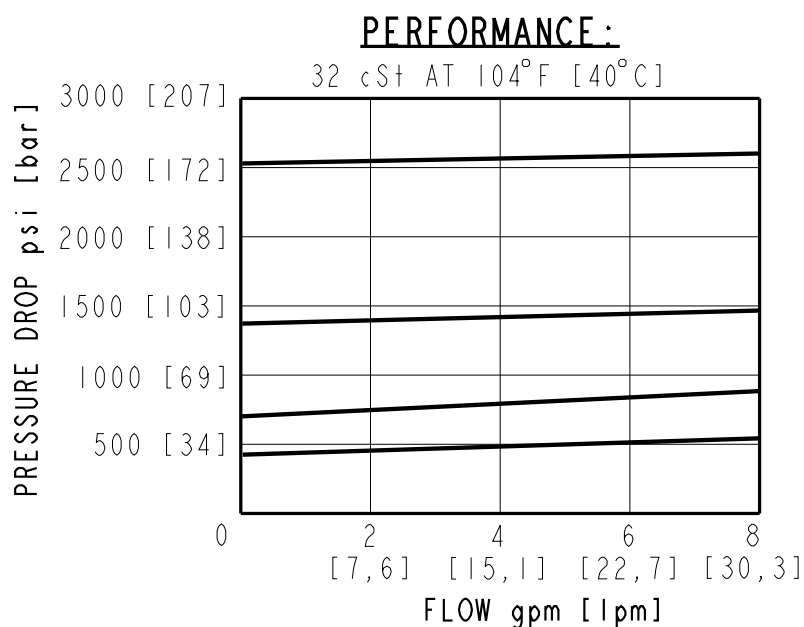
0.57 lb [0.259 kg] note: C, L

0.47 lb [0.213 kg] note: H

Internal wetted surface area: 17.4 in² [112 cm²] note: A, B, C, L19.20 in² [122 cm²] note: F, H**Pressure change per adjuster turn**

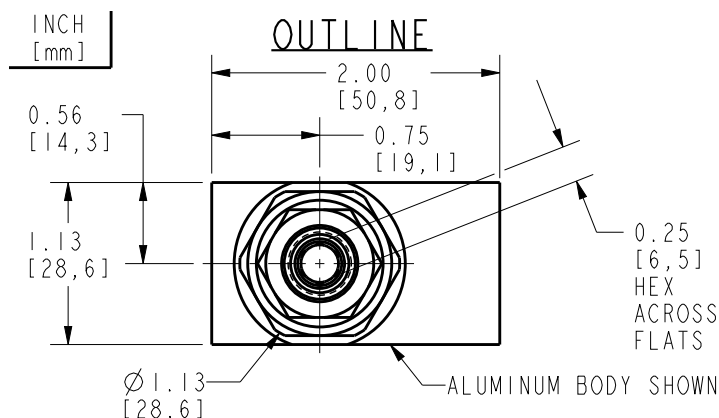
Adaptor	-4 spring	-7 spring	-13 spring	-26 spring
A, B, C, and L	67	128	243	442
H and F	84	159	303	553

Performance

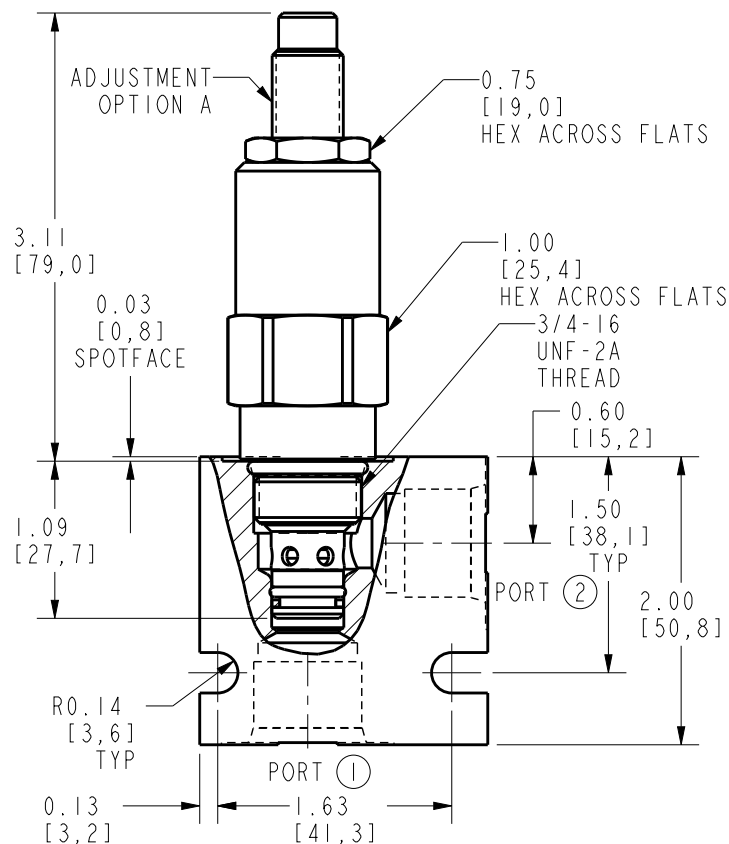


Relief valve cartridge direct acting differential area

Dimensions



FOR OTHER ADJUSTMENT OPTION INFORMATION, SEE PRESSURE CONTROL ADJUSTMENT OPTION OUTLINE DRAWING



ALL DIMENSIONS ARE FOR REFERENCE ONLY

Installation Specifications

Cavity: VC08-2

Cartridge installation torque: 19-21 ft-lb [25.8-28.5 N-m]

24-26 ft-lb [32.5-35.3 N-m] note: "H" plug

Maximum allowable torque: 30 ft-lb [40.7 N-m]

Relief valve cartridge direct acting differential area

Orientation restriction: None

Accessories

Seal kit: SK08-2X-T note: (X=seal option) pressure on port 2 only

SK08-2X-M note: (X=seal option) bidirectional pressure

Order Code

ORDERING INFORMATION:

XRV08-22X-X-XX-XX/XXXX

PROTECTION OPTION:

TYPE III ZINC PLATING - OMIT
960 hr PROTECTION - G

BASE MODEL NUMBER:

ADJUSTMENT OPTIONS:

0.25 [6,4] HEX ALLEN HEAD - A
Ø1.50 [38,1] ALUMINUM KNOB - B
OPTION "A" WITH COVER CAP - C
FACTORY PRESET, NONADJUSTABLE - F
FACTORY PRESET HIDDEN ADJUSTMENT - H
OPTION "C" WITH LOCK WIRE HOLES - L

PORTING:

CARTRIDGE ONLY - 0

SEAL OPTION:

PRESSURE ON PORT 2 ONLY

BUNA N - N
FLUOROCARBON - V
POLYURETHANE - P

BIDIRECTIONAL PRESSURE

BUNA N - NC
FLUOROCARBON - VC
POLYURETHANE - PC

PRESSURE SETTING RANGE:

50 TO 500 psi - 04
[3,4 TO 34,5 bar]
100 TO 1100 psi - 07
[6,9 TO 75,8 bar]
100 TO 2000 psi - 13
[6,9 TO 137,9 bar]
250 TO 3600 psi - 26
[17,2 TO 248,2 bar]

PRESSURE SETTING:

FOR EXAMPLE:

(IN psi)
3500 psi - 35
(IN bar)
150 bar - M150

Model Options

RV08-22F-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

Relief valve cartridge direct acting differential area

H Line Body

CODE	DESCRIPTION
0	No Body
4T	Aluminum SAE 4
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

J Seal

CODE	DESCRIPTION
N	Buna-N
NC	Buna-N for Crossover Applications
V	Fluorocarbon
VC	Fluorocarbon for Crossover Applications
P	Polyurethane
PC	Polyurethane for Crossover Applications
U	PPDI Urethane

R Spring

CODE	DESCRIPTION
04	3.4 to 34.5 bar (50 to 500 psi) Spring Range
07	6.9 to 78.5 bar (100 to 1100 psi) Spring Range
13	6.9 to 137.9 bar (150 to 2000 psi) Spring Range
26	17.2 to 248.2 bar (250 to 3600 psi) Spring Range

S Setting

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