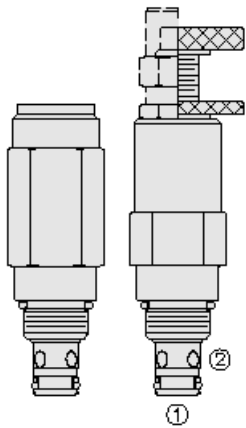
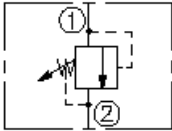




Overview



Symbol



Description

RV08-20X is a screw in, cartridge style, direct acting, poppet type, hydraulic relief valve intended for lower flow circuits requiring low internal leakage.

Operation

RV08-20X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the spring opposed poppet off its seat.

Features

- Adjustments cannot be backed out of the valve.
- Variety of pressure adjustment options including non-adjustable factory preset.
- Adjustments options A, B, and C: positive stops prevent springs from going solid.
- Optional spring ranges to 248 bar (3600 psi).
- Rapid response to pressure changes.
- Optional bi-directional pressure (requires bi-directional pressure seal option).
- Compact size.

Notes

Supersession: Existing and new applications.

[RVD58-20](#) is our best-in-class relief valve and can functionally replace this valve in most applications. We strongly encourage you to consider this newer alternative.

Considerations:

- Comparable pressure and flow ratings
- Comparable response rate
- Better pressure rise characteristics
- Smaller size
- No dynamic seal
- Competitive cost
- VC08-2B cavity variation is required. Some manifolds may allow drop-in replacement.
- Assistance is available to evaluate your application

Ratings

Pressure Ratings

Pressure rating	275.8 bar (4000 psi) 482.6 bar (7000 psi)
Burst pressure	896.3 bar (13000 psi)
Relief pressure defined	Pressure evident at 0.95 lpm (0.25 gpm)
Reseat pressure	Nominal 80% of crack

Flow Ratings

Flow rating	22.7 lpm (6 gpm)	- Note: At max pressure
Maximum internal leakage	0.25 ml/min (5 drops/min)	- Note: Max to 75% of nominal setting

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F) -26 to 204 °C (-15 to 400 °F) -54 to 107 °C (-65 to 225 °F) seals	- Note: With buna N seals - Note: With fluorocarbon seals - Note: With urethane seals with polyurethane
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Operating Parameters

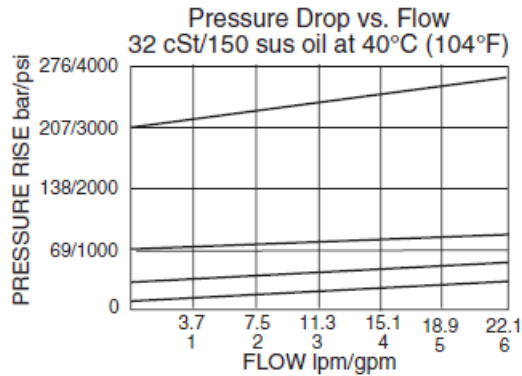
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



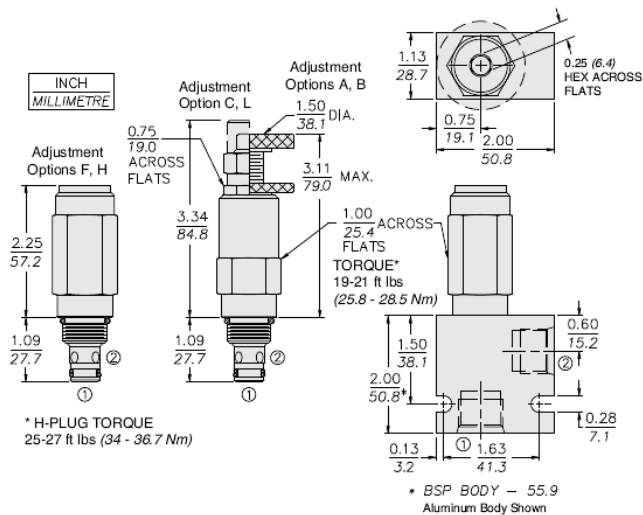
Properties

Unit weight	0.17 kg (0.37 lb)	- Note: A
	0.19 kg (0.42 lb)	- Note: B
	0.22 kg (0.47 lb)	- Note: C I
	0.16 kg (0.35 lb)	- Note: F h
		- Note: A b c I
Internal wetted surface area	141 cm ² (21.9 in ²)	- Note: A b c I
	166 cm ² (25.7 in ²)	- Note: F h

Performance



Dimensions



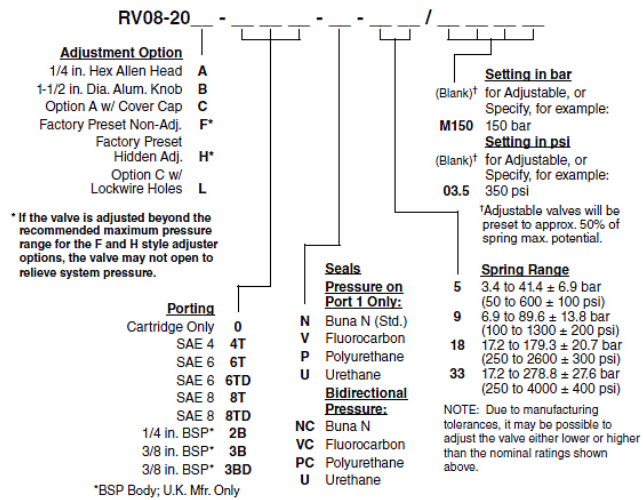
Installation Specifications

Cavity	VC08-2
Cartridge installation torque	25.8 to 28.5 N-m (19 to 21 ft-lb)
Maximum allowable torque	40.7 N-m (30 ft-lb)
H style plug torque	10.8 to 13.6 N-m (8 to 10 ft-lb) - Note: N V P U 34 N-m (25 ft-lb) - Note: NC VC PC max
Orientation restriction	None

Accessories

Seal kit	SK08-2X-B	- Note: X=seal option
	SK08-2X-M	- Note: X=seal option
	SK08-2U-O	- Note: X=seal option

Order Code



Model Options

RV08-20F-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
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
05	3.4 to 34.5 bar (50 to 500 psi) Spring Range
09	6.9 to 75.8 bar (100 to 1300 psi) Spring Range
18	17.2 to 158.6 bar (250 to 2300 psi) Spring Range
33	17.2 to 251.2 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)