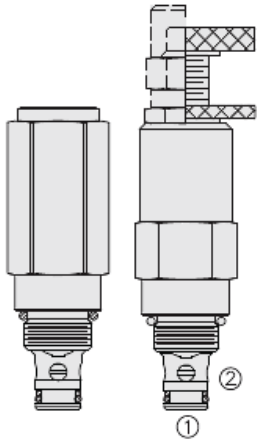




Overview



Description

RV58-20X is a screw-in, cartridge style, direct acting, poppet type, hydraulic relief valve intended for lower flow circuits, requiring low internal leakage.

Operation

The RV58-20X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the spring opposed poppet from its seat.

Features

- Rated for higher operating pressure of 345 bar (5000 psi).
- Bi-directional pressure option available.
- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Variety of adjustment options available.
- Rapid response to pressure changes.
- Compact size.

Notes

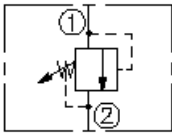
Supersession: Existing and new applications.

[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

Symbol



Ratings

Pressure Ratings

Pressure rating	344.7 bar (5000 psi)
Proof pressure	517.1 bar (7500 psi)
Burst pressure	1294.4 bar (18774 psi)
Relief pressure defined	Pressure evident at 0.95 lpm (0.25 gpm)
Reseat pressure	Nominal 80% of crack pressure

Flow Ratings

Flow rating	22.7 lpm (6 gpm)
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)	- 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 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	RV58-20X -type 111 clear zinc plating per ASTM b633. Grv10-20x -960 hr salt spray per ASTM b117
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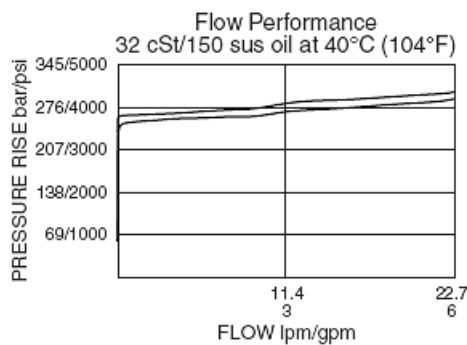
Operating Parameters

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

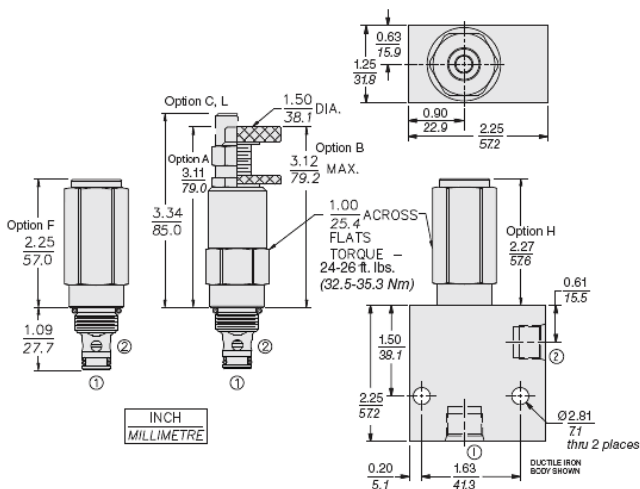
Properties

Unit weight	0.23 kg (0.50 lb)	- Note: RV58-20A RV58-20H
	0.26 kg (0.57 lb)	- Note: RV58-20B
	0.28 kg (0.61 lb)	- Note: RV58-20C RV58-20L
	0.23 kg (0.51 lb)	- Note: RV58-20F
Internal wetted surface area	112.3 cm ² (17.42 in ²)	- Note: RV58-20A RV58-20B RV58-20C RV58-20L
	131.7 cm ² (20.41 in ²)	- Note: RV58-20F RV58-20H

Performance



Dimensions



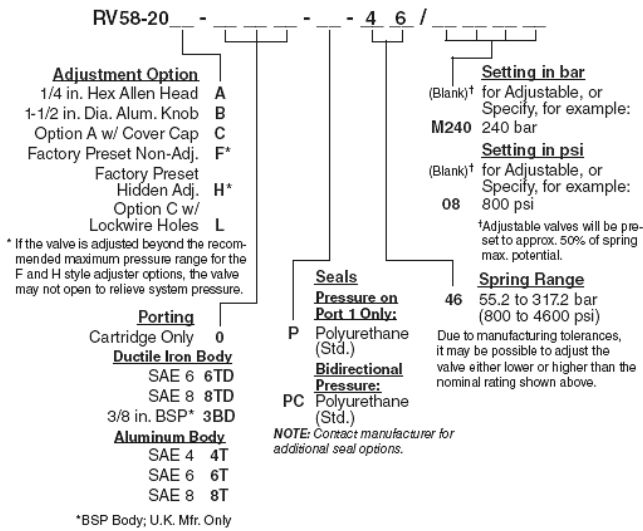
Installation Specifications

Cavity	VC08-2
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 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 31 to 34 N-m (23 to 25 ft-lb) - Note: PC
Orientation restriction	None

Accessories

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

Order Code



Model Options

RV58-20F-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
V	Fluorocarbon
P	Polyurethane

R Spring

CODE	DESCRIPTION
46	55.2 to 317.2 bar (800 to 4600 psi) Spring Range

S Setting



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