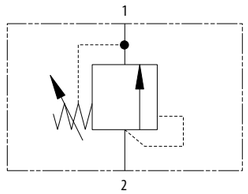
RV8-10 - Relief valve

Poppet, direct acting, differential area
76 L/min (20 USgpm) • 350 bar (5000 psi)



Operation

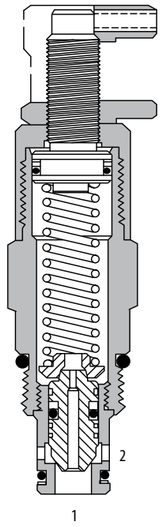
This valve remains closed from port 2 to 1 until the predetermined setting has been reached at port 2.

The pressure acts on the differential area between the seat and the seal diameter on the poppet.

Features

Hardened and ground working parts. Low leakage poppet design. High flow rate for a compact cartridge.

Sectional view



Performance data

Ratings and specifications

Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49° C (120° F)	
Typical application pressure (all ports)	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow	76 L/min (20 USgpm)
Internal leakage	0.3 mL/min (5 drops/min) @ 85% of Pressure Setting
Cavity	C-10–2
Standard housing materials	Aluminum or steel
Temperature range	-40° to 120°C (-40° to 248°F)
Fluids	All general purpose hydraulic fluids such as: MIL–H–5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness Code 18/**16/13**
Weight cartridge only	0,22 kg (0.48 lbs)
Seal kits – RV8	565803 Buna–N 566086 Viton®
– RV8A	565806 Buna–N 889627 Viton®

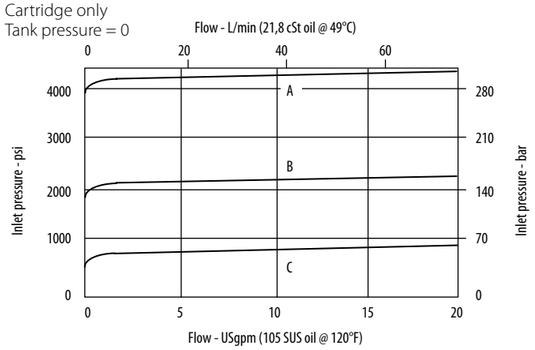
Viton is a registered trademark of E.I. DuPont

Description

This is a fast, direct acting differential area screw-in cartridge relief valve. The valve is ideal for the protection against shock pressures that can damage actuators.

Pressure override curves

Cartridge only
Tank pressure = 0



RV8-10 - Relief valve

Poppet, direct acting, differential area
76 L/min (20 USgpm) • 350 bar (5000 psi)

Model code

RV8 A – 10 (V) – * – (S) – ** – **/ ** – 00

1 2 3 4 5 6 7 8 9 10

1 Function

RV8 - Relief valve

2 Cage seals

Blank - Single back-up ring as shown
A - 1/2 thickness back-up ring on each side of o-ring (for cross port relief applications)

3 Size

10 - 10 size

4 Seal material

Blank - Buna-N
V - Viton®

5 Adjustment

C - Cap
F - Factory set
I - Internal
K - Knob
S - Screw

6 Valve housing material

Blank - Aluminum
S - Steel

7 port size

0 - Cartridge only

Code	Port size	Housing number Aluminum light duty	Aluminum fatigue rated	Steel fatigue rated
3B	3/8" BSPP	02–175462	–	–
2G	1/4" BSPP	–	876702	02–175102
3G	3/8" BSPP	–	876703	02–175103
6H	SAE 6	–	876700	–
8H	SAE 8	–	876701	–
6T	SAE 6	566151	–	02–175100
8T	SAE 8	–	–	02–175101

See section J for housing.

8 Cracking pressure range

Note: Code based on pressure in psi.
4 - 3,45-30 bar (50-450 psi)
12 - 7-86 bar (100-1250 psi)
25 - 17-175 bar (250-2500 psi)
50 - 38-350 bar (550-5000 psi)

9 Setting pressure

Within ranges in 8
Blank - Normal factory setting at approximate mid-range. User requested settings in 3,45 bar (50 psi) steps, Coded as in the following examples:
10 - 70 bar (1000 psi)
10.5 - 72,4 bar (1050 psi)

10 Special features

00 - None
(Only required if valve has special features, omitted if "00.")
SS - 316 Stainless Steel external components

⚠ Warning

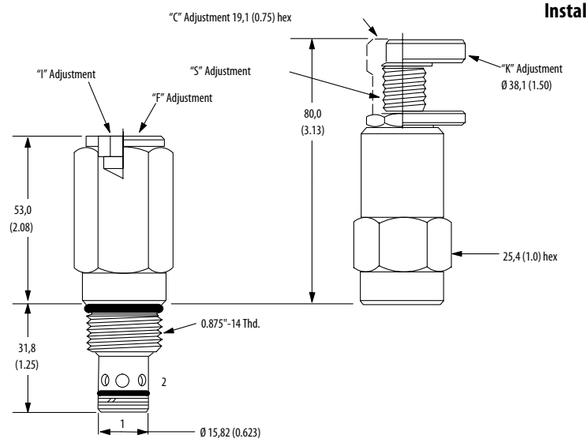
Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings must be used for operating pressures above 210 bar (3000 psi).

Torque cartridge in housing
A - 47-54 Nm (35-40 ft. lbs)
S - 68-75 Nm (50-55 ft. lbs)

Dimensions

mm (inch)

Cartridge only



Installation drawing (Steel)

