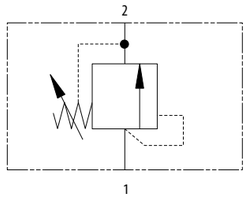
RV1-10 - Relief valve

Poppet, direct acting
30 L/min (8 USgpm) • 250 bar (3600 psi)



Operation

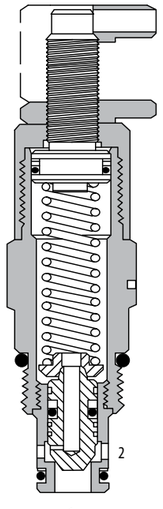
This valve remains closed from port 1 to port 2 until the predetermined setting has been reached at port 1.

The poppet is unseated and allows flow out of port 2.

Features

Fast acting, low pressure rise. Low internal leakage, high flow rate for compact design

Sectional view



Description

This is a direct acting, poppet style screw in cartridge relief valve ideal for low cost small flow applications to limit the pressure in the system.

Performance data

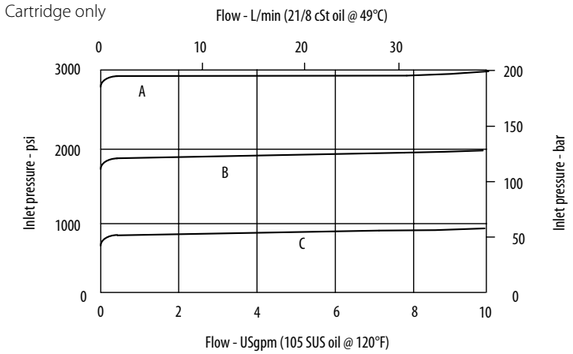
Ratings and specifications

Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49° C (120° F)	
Typical application pressure (all ports)	250 bar (3600 psi)
Cartridge fatigue pressure (infinite life)	250 bar (3600 psi)
Rated flow	30 L/min (8 USgpm)
Internal leakage	0.3 L/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	565803 Buna–N 566086 Viton®

Viton is a registered trademark of E.I. DuPont

Pressure override curves

Cartridge only



RV1-10 - Relief valve

Poppet, direct acting
30 L/min (8 USgpm) • 250 bar (3600 psi)

Model code

RV1(A) – 10 (V) – * – (*) – ** – **/ ** – 00

1 2 3 4 5 6 7 8 9

1 Function

RV1 - Relief valve - Standard
RV1A - Relief valve - with 1/2 thickness back-up ring on each side of o-ring (for cross port relief applications)

2 Size

10 - 10 size

3 Seal material

Blank - Buna-N
V - Viton®

4 Adjustment

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

5 Valve housing material

Blank - Aluminum
S - Steel

6 Port size

Code	Port size	Housing	Number	
		Aluminum Light duty	Aluminum Fatigue rated	Steel Fatigue rated
0	Cartridge only			
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.

7 Cracking pressure range

Note: Code based on pressure in psi.
3 -3,5-20 bar (50-300 psi)
9 -7- 62 bar (100-900 psi)
18 - 17-124 bar (250-1800 psi)
30 - 34-210 bar (600-3000 psi)
36 - 124-250 bar (1800-3600 psi)

8 Setting pressure

Within ranges in 7

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)

9 Special features

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

⚠ Warning

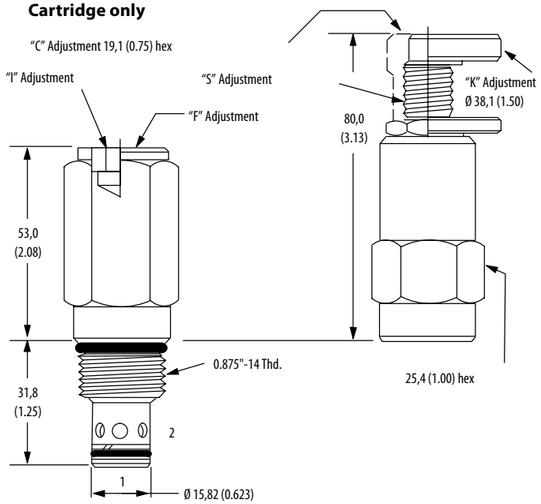
Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings must be used for operating pressures above 210 bar (3000 psi).

Dimensions

mm (inch)

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

Cartridge only



Installation drawing (Aluminum)

