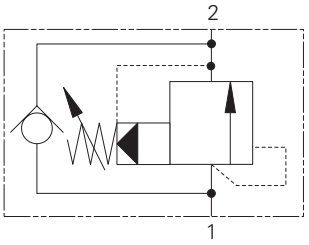
RV2-10 - Relief Valve

Poppet, pilot operated with reverse flow check
12-114 L/min (3-30 USgpm) • 350 bar (5000 psi)



Operation

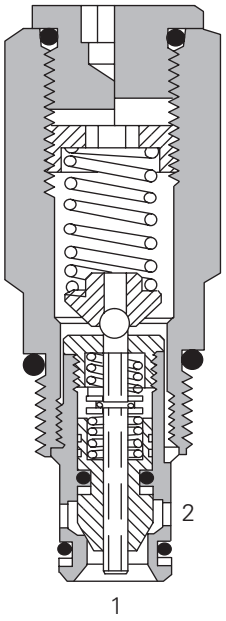
When the inlet reaches the valve setting, the pilot section opens, causing a small flow across the orifice in the poppet.

The subsequent pressure drop moves the poppet, opening the valve, allowing relief flow to tank.

Features

Very low pressure rise for any increase in flow giving accurate pressure control. Hardened working parts give long, reliable, trouble-free life. Cartridge construction giving maximum flexibility in mounting.

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 range	12–114 L/min (3–30 USgpm)
Internal leakage	0.3 mL/min (5 drops/min) @ 85% of Pressure Setting
Reverse free flow check	3 bar (45 psi)
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®

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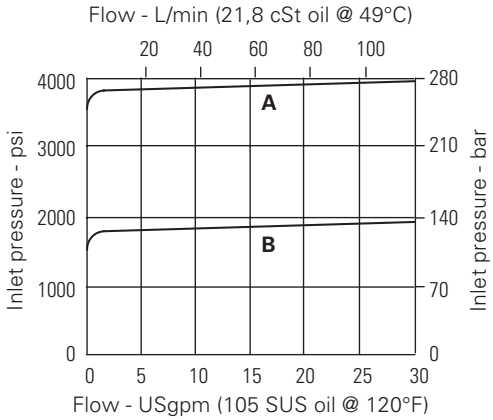
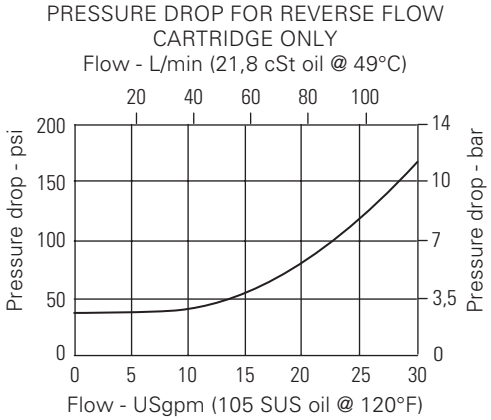
Description

This is a pilot operated relief valve with an integral free flow check designed to limit pressure in a system. Good for continuous duty and accurate pressure control with constant or varying flows With integral reverse flow check.

Pressure Override Curves

Cartridge only
Tank pressure = 0





A - 50 Spring
B - 20 Spring

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Model Code

RV2 – 10 (V) – * – (*) – ** – **/ ** – 00

1 2 3 4 5 6 7 8 9

1 Function
RV2 - Relief valve

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)
20 - 7-140 bar (100-2000 psi)
35 - 17-240 bar (250-3500 psi)
50 - 35-350 bar (500-5000 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

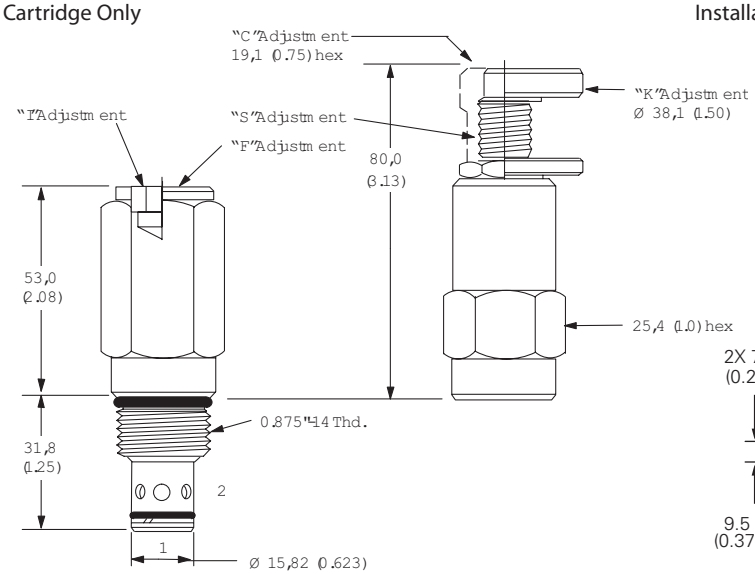
WARNING

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 (Steel)