

# RV2-10

Relief Valve

Pilot operated with reverse free flow check

## Description

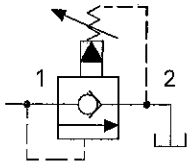
The RV2-10 is a pilot operated, poppet type, screw-in cartridge relief valve with reverse free flow check.

## Operation

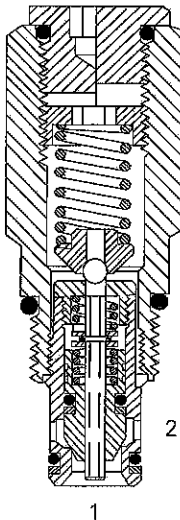
This valve remains closed from port 1 to port 2 until the predetermined setting

has been reached at port 1. The poppet is unseated and allows flow out of port 2.

## Functional Symbol



## Sectional View



## RATINGS AND SPECIFICATIONS

Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49°C (120°F)

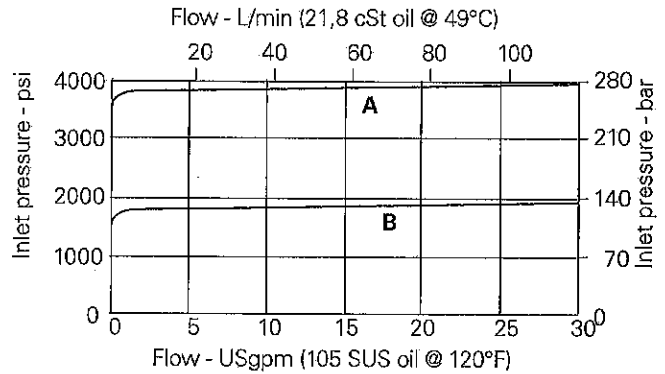
Typical application pressure (all ports)	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow range	12–114 L/min (3–30 USgpm)
Internal leakage	5 drops/min @ 85% of Pressure Setting
Reverse free flow check	3 bar (45 psi)
Cavity	C-10-2
Standard housing materials	Aluminum 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®

Viton is a registered trademark of E.I. DuPont

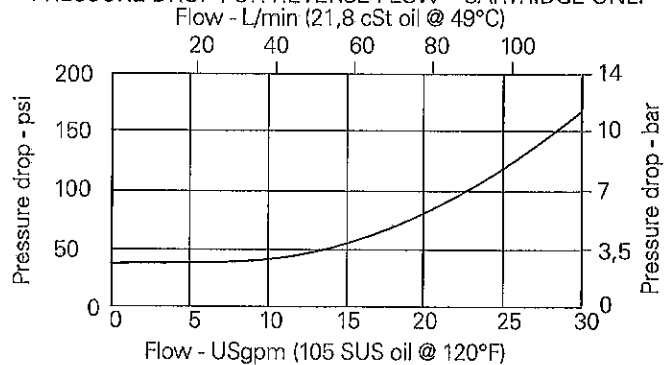
## Pressure Override Curves

Cartridge only  
Tank pressure = 0

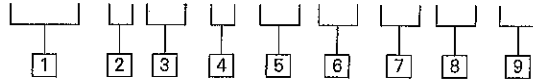
A - 50 Spring  
B - 20 Spring



## PRESSURE DROP FOR REVERSE FLOW – CARTRIDGE ONLY



**RV2-10 (V) - \* - (\* ) - \*\* - \*\* / \*\* - 00**



**1 Function**  
RV2 - Relief valve

**2 Size**  
10 - 10 Size

**3 Seals**  
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**  
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 details.

**7 Cracking pressure range**  
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)

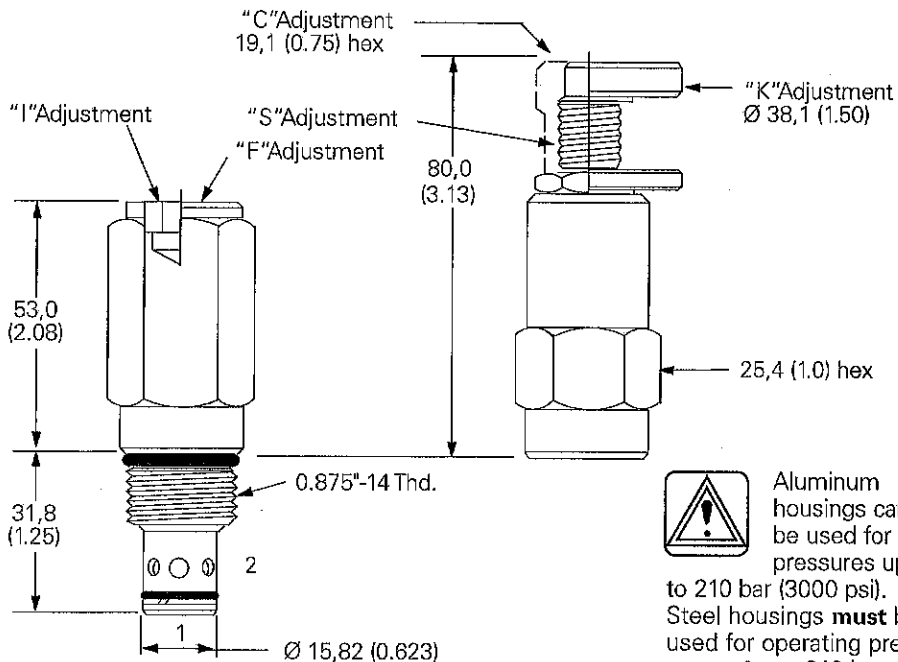
**8 Setting pressure**  
Within ranges in 7  
Blank - Normal factory setting at approximate mid-range. User requested settings in 3,45 bar (50 psi) steps, coded as in the following examples:  
10 - 70 bar (1000 psi)  
10.5 - 72,4 bar (1050 psi)

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

**Dimensions**

mm (inch)

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



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).

**E**