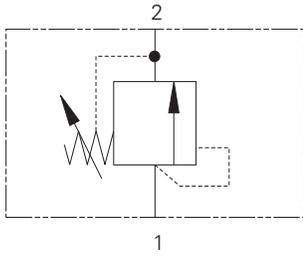


# RV1-10 - Relief Valve

Poppet, Direct Acting

30 L/min (8 USgpm) • 210 bar (3000 psi)



## Operation

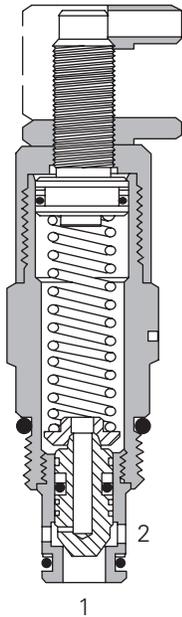
This valve remains closed from port 1 to port 2 until the predetermined setting has been reached at port 1.

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



## 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)	210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)	210 bar (3000 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 <sup>®</sup>

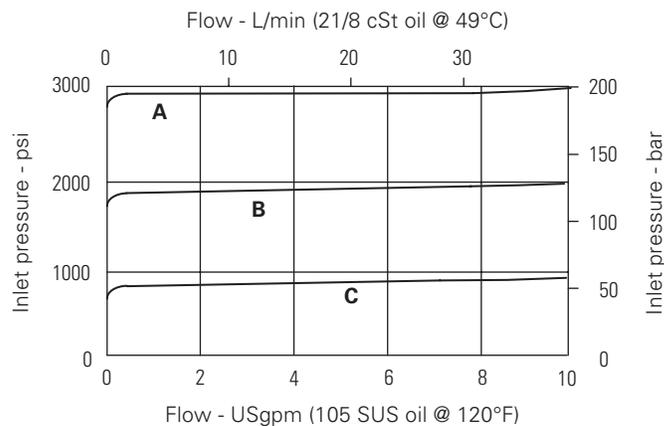
Viton is a registered trademark of E.I. DuPont

## 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.

## Pressure Override Curves

### Cartridge only

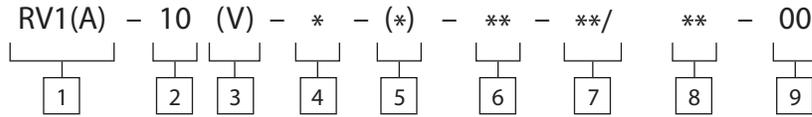


# RV1-10 - Relief Valve

Poppet, Direct Acting

30 L/min (8 USgpm) • 210 bar (3000 psi)

## Model Code



### 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 (500-3000 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

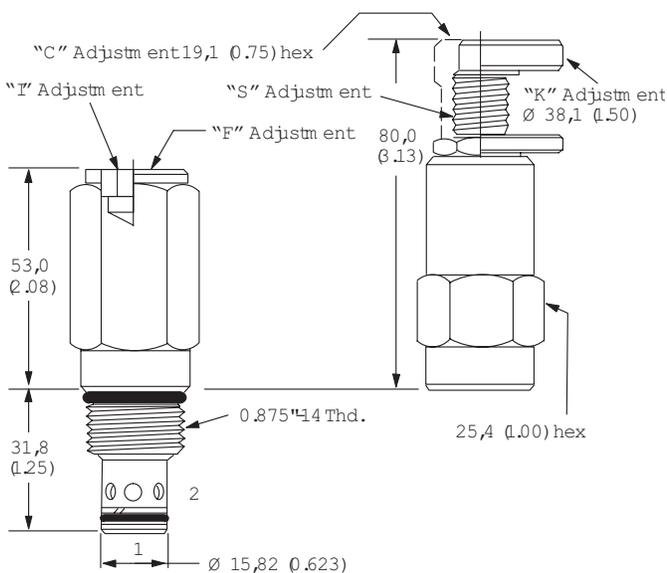
mm (inch)

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)

