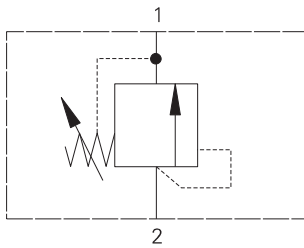


# RV3-12 - Relief valve

Poppet, direct acting, differential area  
 132 L/min (35 USgpm) • 350 bar (5000 psi)



## Operation

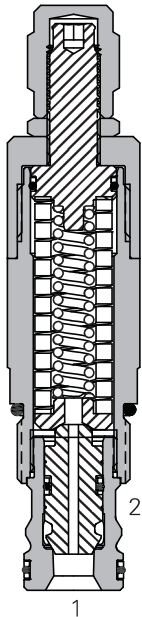
This valve remains closed from port 2 to 1 until the predetermined setting has been reached at port 2.

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	132 L/min (35 USgpm)
Cracking pressure ranges	3,4-275 bar (50-4000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Cavity	C-12-2 or C-12-2U
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness Code 18/ <b>16/13</b>
Standard housing materials	Aluminum or steel
Weight cartridge only	0,49 kg (1.08 lbs)
Seal kit	02-165889 (Buna-N) 02-165888 (Viton®)

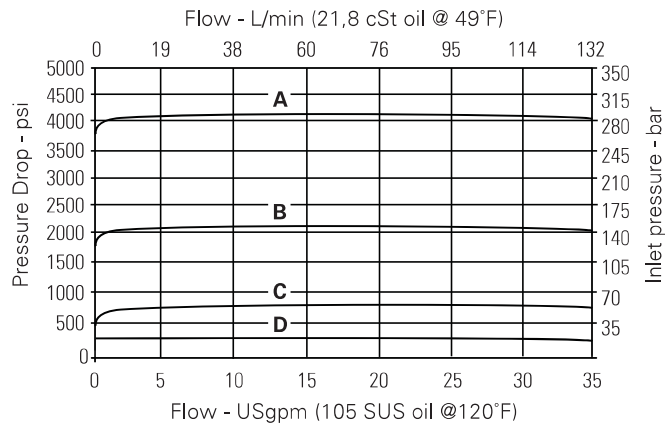
Viton is a registered trademark of E.I. DuPont

Endurance tested to 1 million cycles at full rated flow and pressure.

## 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 drop curves



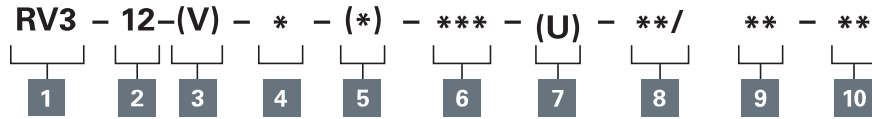
- A - 40 spring
- B - 22 spring
- C - 8,5 spring
- D - 2,5 spring

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# RV3-12 - Relief valve

Poppet, direct acting, differential area  
132 L/min (35 USgpm) • 350 bar (5000 psi)

## Model code



### 1 Function

RV3 - Relief valve

### 2 Size

12 - 12 size

### 3 Seal material

Blank - Buna-N  
V - Viton®

### 4 Adjustment

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

### 5 Valve housing material

Omit for cartridge only

A - Aluminum  
S - Steel

### 6 Port size

Code Port size

Code	Port size	Housing number			
		C-12-2 Aluminum Fatigue rated	C-12-2U Aluminum Fatigue rated	C-12-2 Steel Fatigue rated	C-12-2U Steel Fatigue rated
4G	1/2" BSPP	02-161118	02-161116	30915-1	30915-2
6G	3/4" BSPP	02-161117	02-161115	02-169665	02-162922
10T	SAE 10	02-160640	02-160641	02-169744	02-169817
12T	SAE 12	02-160644	02-160645	02-169782	02-169790

See section J for housing.

### 7 Cavity

Blank - Cavity without undercut  
U - Cavity with undercut

### 8 Cracking pressure range

**Note:** Code based on pressure in psi.  
2.5 - 3,4-17 bar (50-250 psi)  
8.5 - 13-55 bar (200-850 psi)  
22 - 20-150 bar (300-2200 psi)  
40 - 40-275 bar (600-4000 psi)

### 9 Setting pressure

Within ranges in 8  
Blank - Normal factory setting at approximate mid-range.

**Optional** - 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.")

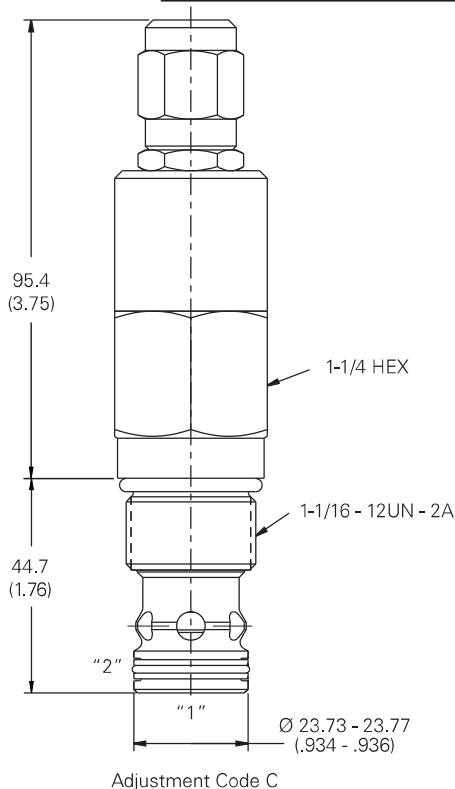
### Warning

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).

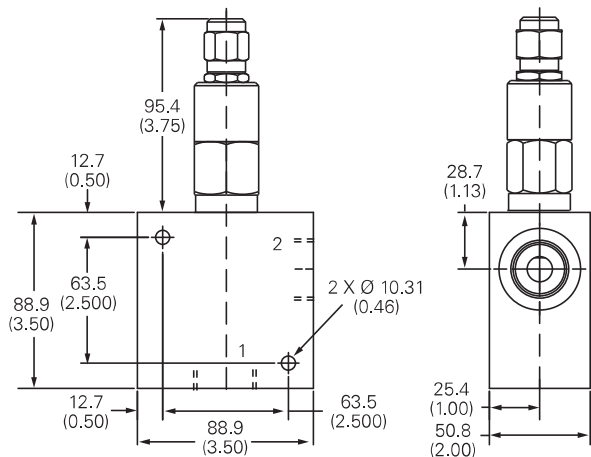
## Dimensions

mm (inch)

## Cartridge only



## Installation drawing (Steel)



Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.