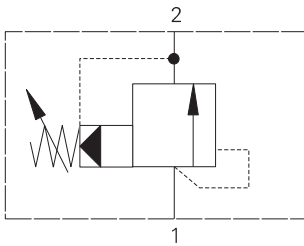


# RV11-12 - Relief valve

Spool, pilot operated  
190 L/min (50 USgpm) • 350 bar (5000 psi)



## Operation

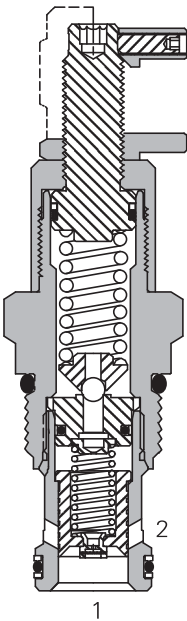
When the inlet pressure exceeds the setting of the valve, the pilot section opens, causing a small flow across the orifice in the main spool.

The subsequent pressure drop moves the spool against a light spring opening a ring of radial holes in the sleeve, allowing relief flow to tank.

## Features

High accuracy of pilot operated design. Hardened working parts give long, reliable, trouble-free life. Cartridge construction for installation into your own manifold.

## Sectional view



## Performance data

### Ratings and specifications

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

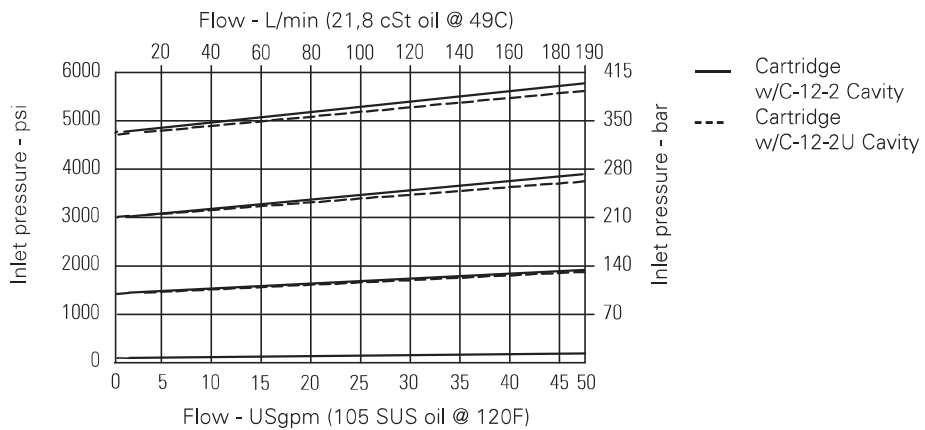
Typical application pressure	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow	190 L/min (50 USgpm)
Reseat pressure	More than 90% of crack pressure
Hysteresis	Less than 3 bar (45 psi)
Internal leakage, port 1 to port 2	131 cc/min (8cu in/min@350 bar) (5000 psi)
Overshoot	Less than 20% of max. press. range with flow step of 30 USgpm at pressure rise rate of 100,000 psi/sec
Repeatability	+/- 1% maximum pressure range
Cavity	C-12-2 or C-12-2U
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	0,3 kg (0.68 lbs)
Seal kits	02-165889 Buna-N 02-165888 Viton®

Viton is a registered trademark of E.I. DuPont

## Description

To limit pressure in a system. Good for continuous duty and accurate pressure control with constant or varying flows.

## Pressure override curves

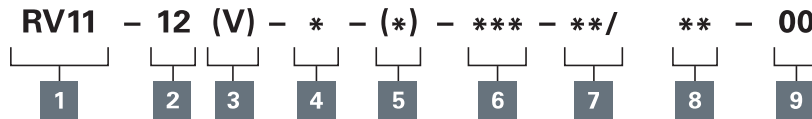


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# RV11-12 - Relief valve

Spool, pilot operated  
190 L/min (50 USgpm) • 350 bar (5000 psi)

## Model code



### 1 Function

RV11 - Relief valve

### 2 Size

12 - 12 size

### 3 Seal material

Blank - Buna-N  
V - Viton®

### 4 Adjustment

S - Screw  
C - Cap  
K - Knob

### 5 Valve housing material

A - Aluminum  
S - Steel

### 6 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
0	Cartridge only				
10T	SAE 10	02-160640	02-160641	02-169744	02-169817
12T	SAE 12	02-160644	02-160645	02-169782	02-169790
4G	1/2" BSPP	02-161118	02-161116	02-172062	02-172512
6G	3/4" BSPP	02-161117	02-161115	02-169665	02-169922

See section J for housing.

### 7 Cracking pressure range

**Note:** Code based on pressure in psi.  
**15** - 10-100 bar (150-1500 psi)  
**30** - 17-210 bar (250-300 psi)  
**50\*** - 24-350 bar (350-5000 psi)  
 \*Must be ordered as a cartridge only or with a steel housing.

### 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)

Torque cartridge in housing  
**A** - 81-95 Nm (60-70 ft. lbs)  
**S** - 102-115 Nm (75-85 ft. lbs)

### 9 Special features

**00** - None  
 (Only required if valve has special features, omitted if "00.")

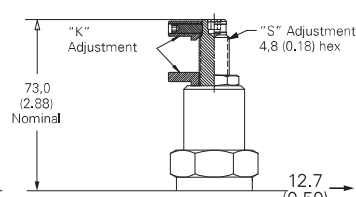
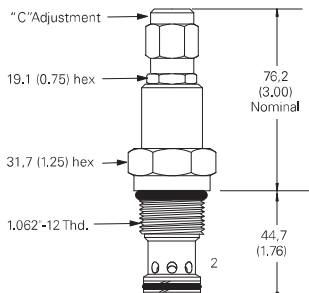
### Warning

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).

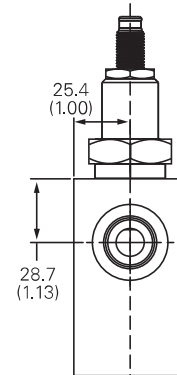
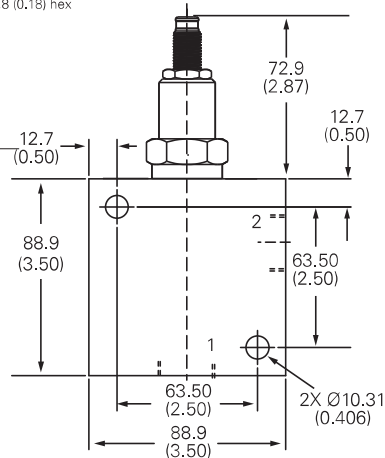
## Dimensions

mm (inch)

### Cartridge only



### Installation drawing (Steel)



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