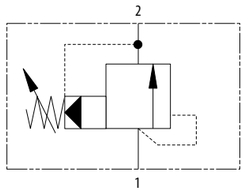
RV11-12 - Relief valve

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



Operation

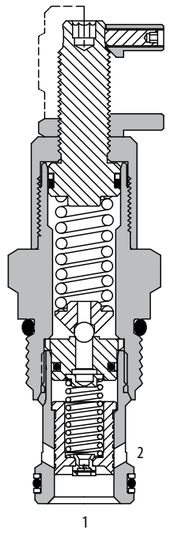
When the inlet pressure exceeds the setting of the valve, the pilot section opens, causing a small flow across the orifice in the main spool.

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

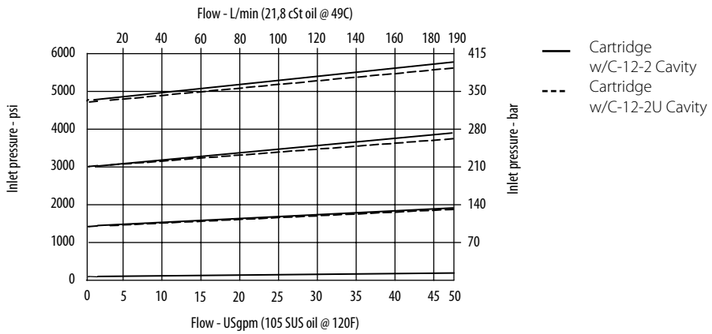
Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49° C (120° F)	
Typical application pressure	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow	190 L/min (50 USgpm)
Reseat pressure	More than 90% of crack pressure
Hysteresis	Less than 3 bar (45 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

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

Model code

RV11 – 12 (V) – * – (*) – * – **/ ** – 00**

1 2 3 4 5 6 7 8 9

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.")

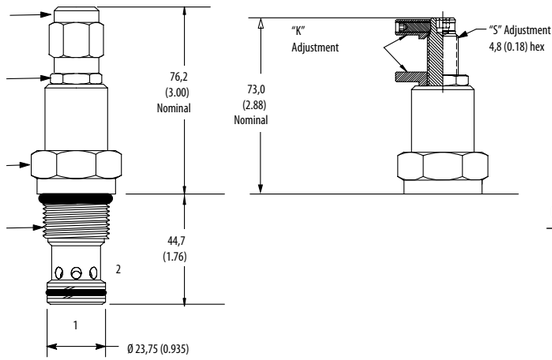
⚠ Warning

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).

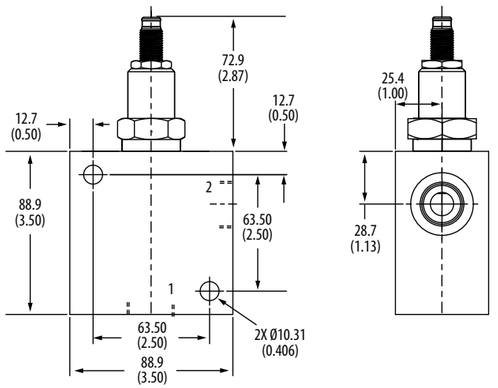
Dimensions

mm (inch)

Cartridge only



Installation drawing (Steel)



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