

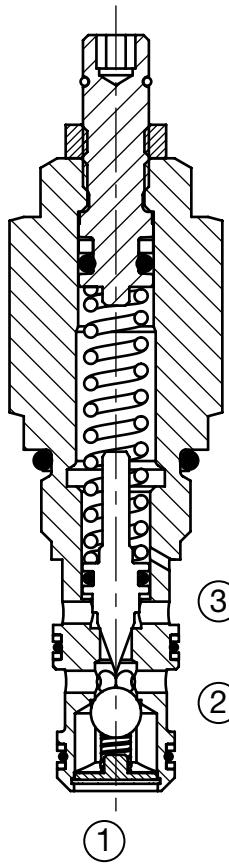
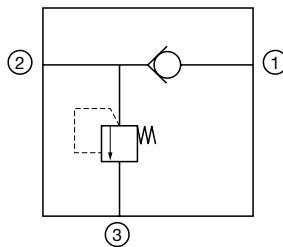
CHECK & LOAD CONTROL VALVES

RV06C-01

Check Valve, Integral Relief, Poppet Type

Up to 5 gpm (19 l/min) • 5000 psi (350 bar)

Hydraulic Symbol



Description

A screw-in cartridge, ball type check valve and direct acting, poppet type relief valve combined in a single cartridge intended for use as load holding and pressure limiting device in hydraulic circuits to reduce manifold size.

Operation

The RV06C allows flow from port 2 to port 1 once the sufficient pressure is applied at port 2 to overcome the bias spring pressure of 5 psi (0.34 bar). It normally blocks flow in the opposite direction.

The relief portion of the valve would remain closed until the predetermined pressure setting is reached at port 2 to lift the spring opposed poppet from its seat, allowing flow from port 2 to port 3. Pressure at port 3 is directly additive to relief pressure setting.

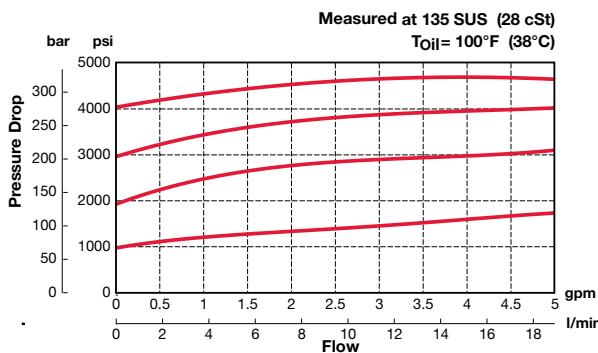
Features

- Combination of two functions in one cartridge
- Relief setting up to 5000 psi (350 bar)
- Relief setting adjustment screw cannot be backed out of the valve
- Adjustable under full pressure
- Fast closing and seating
- Hardened closing elements to ensure minimal wear and extend service life
- All external surfaces zinc-plated

Specifications

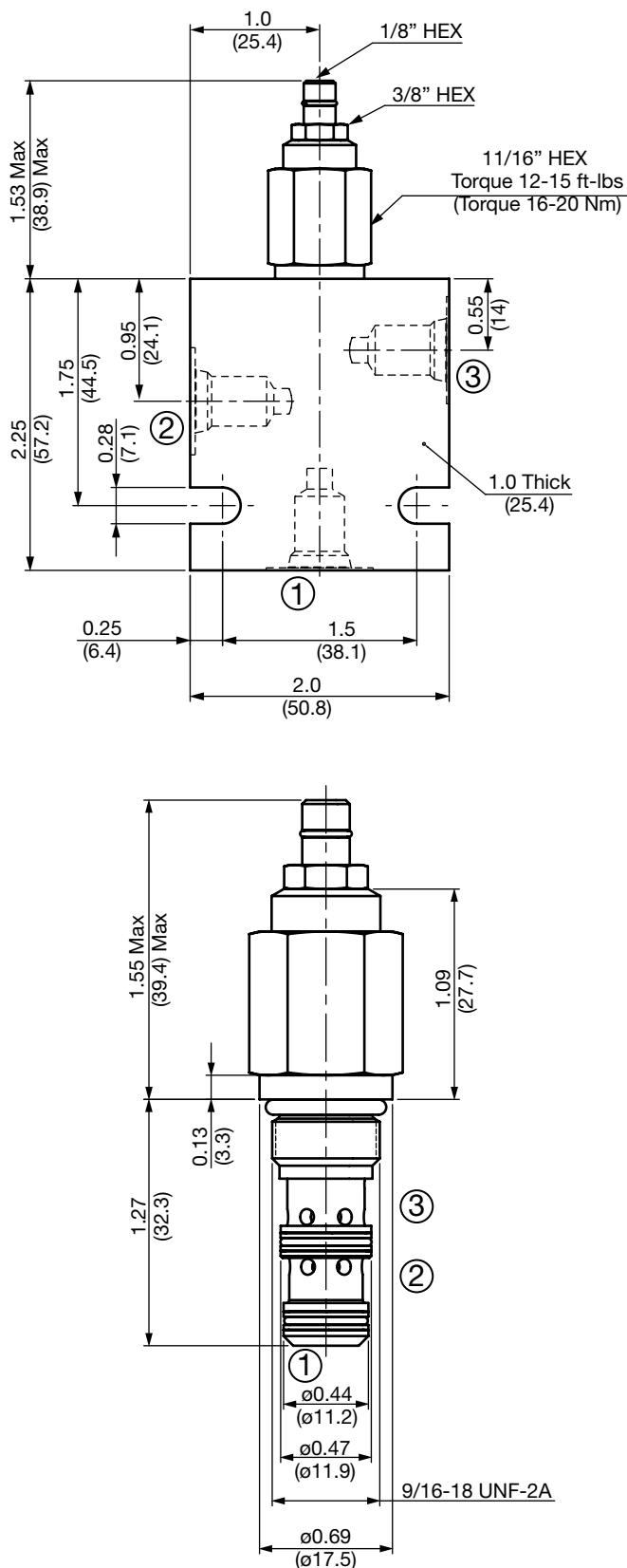
Operating Pressure	5000 psi (350 bar)
Maximum Flow Rate	5 gpm (19 l/min)
Internal Leakage	5 drops/min maximum to 75% of nominal setting.
Relief Pressure Ranges	0 to 1800 psi (0 to 124 bar) 0 to 3000 psi (0 to 207 bar) 500 to 5000 psi (35 to 350 bar)
Reseat Pressure	80% of crack pressure
Check Valve Bias Spring Cracking Pressure	5 psi (0.34 bar)
Fluid Operating Temp. Range	-20° to 248°F (-29° to 120°C)
Fluid Compatibility	Mineral-Based or Synthetics with lubricating properties
Viscosity	50 to 2000 SUS (7.4 to 420 cSt)
Filtration	21/19/16 or cleaner per (ISO 4406)
Installation	No orientation restrictions
Cavity	FC06-3 (see Line Bodies & Cavities section)
Cavity Tools	Rougher: 02582050 Finisher: 02582051
Cartridge Weight	0.06 lb (27 g)
Cartridge Material	Steel with hardened work surfaces. Zinc plated exposed surfaces. Buna N or Viton® o-rings. Solid thermoplastic polyester back-up rings.
Seal Kits	Buna-N P/N: 02610186 Viton® P/N: 02610187

Performance – Relief



CHECK & LOAD CONTROL VALVES

Dimensions



All measurements in inches (mm).
Subject to technical modifications

Model Code

RV06C-01-AS4-N-180 V 100

Valve Model

Body & Ports

C = Cartridge only
AS4 = SAE-4 Ports, aluminum Body
SS4 = SAE-4 Ports, steel Body

Seals

N = Buna-N
V = Viton®

Relief Adjustment Range

180 = 0 to 1800 psi (0 to 124 bar)
300 = 0 to 3000 psi (0 to 207 bar)
500 = 500 to 5000 psi (35 to 350 bar)

Relief Adjustment Options

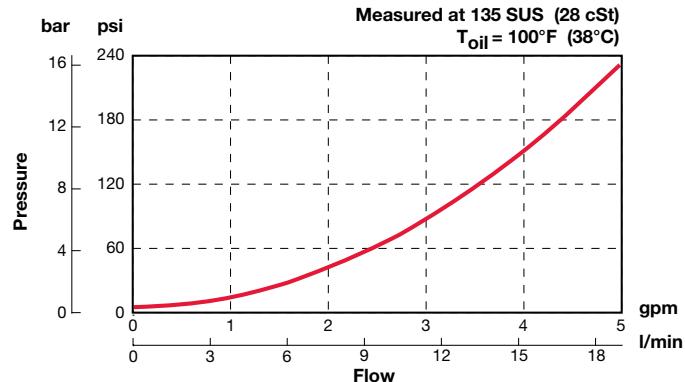
V = Allen Head (Hex 1/8")

Setting

blank = Set at 50% maximum pressure for the range
XXX = Desired psi ÷ 10

Example: 100 = 1000 psi

Performance – Check Valve



Standard Line Bodies*

Code	Part No	Material	Pressure Rating	Weight
FH063-AS4	02600492	Aluminum, anodized	3500 psi (245 bar)	0.36 lbs (0.16 kg)
FH063-SS4	02600493	Steel, Zinc plated	6000 psi (420 bar)	1.1 lbs (0.50 kg)

*Please refer to Line Bodies & Cavities section for details