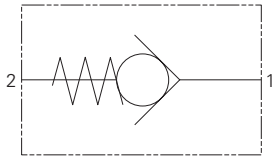


# CV3-10/CV13-10 - Check Valve

Direct acting, poppet type

Up to 76 L/min (20 USgpm) • 350 bar (5000 psi)



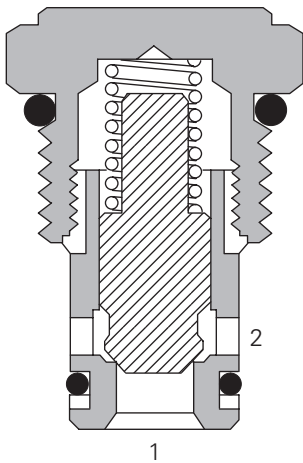
## Operation

The valve remains closed until the spring bias is reached at port 1 at which time the poppet lifts of the seat and allows flow from port 1 to port 2. in the other direction the valve is closed.

## Features

Hardened and ground working parts to limit leakage and extend service life.

## 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) CV3/CV13 210 bar (3000 psi)/350 bar (5000 psi)

Cartridge fatigue pressure (infinite life) CV3/CV13 210 bar (3000 psi)/350 bar (5000 psi)

Rated flow 76 L/min (20 USgpm)

| Free flow cracking pressures @ 1.0 L/min (0.25 USgpm) | 003 - 0.21 bar (3 psi)    |
|---|---------------------------|
|   | 010 - 0.69 bar (10 psi)   |
|   | 020 - 1.38 bar (20 psi)   |
|   | 035 - 2.41 bar (35 psi)   |
|   | 040 - 2.76 bar (40 psi)   |
|   | 065 - 4.48 bar (65 psi)   |
|   | 100 - 6.90 bar (100 psi)  |
|   | 180 - 12.40 bar (180 psi) |
|   | 210 - 14.50 bar (210 psi) |

Internal leakage, Port 2 to 1 5 drops/min. maximum @ 350 bar (5000 psi)

Temperature range -40° to 120°C (-40° to 248° F)

Cavity C-10-2

Fluids All general purpose hydraulic fluids such as MIL - H-5606, SAE 10, SAE 20, etc.

Filtration Cleanliness code 18/16/13

Standard housing material Aluminum or steel

Weight: cartridge only 0.08 kg (0.17 lbs.)

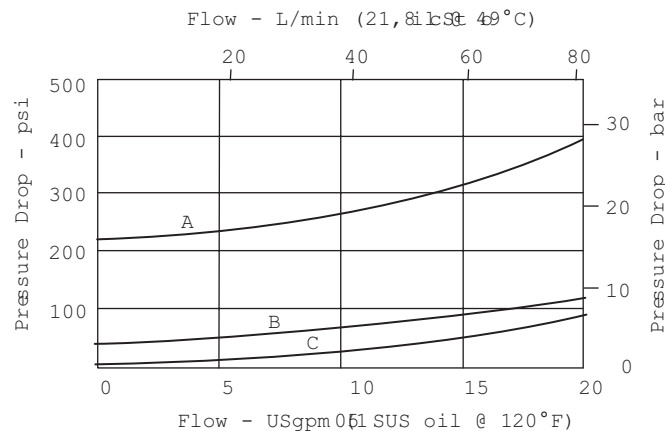
Seal kit 565803 (Buna-N)  
566086 (Viton)

Viton is a registered trademark of E.I. DuPont

## Description

This is a compact poppet type check valve ideal for use in manifolds for load sense or low flow applications.

## Pressure Drop



A - CV(\*)3 10\*P 000 210 00

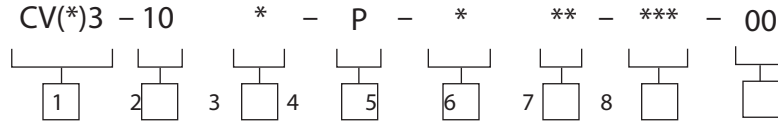
C - CV(\*)3 10\*P 000 003 00

B - CV(\*)3 10\*P 000 040 00

# CV3-10/CV13-10 - Check Valve

Direct acting, poppet type  
Up to 76 L/min (20 USgpm) • 350 bar (5000 psi)

## Model Code



### 1 Function

CV3 - Check valve 210 bar (3000 psi)  
CV13 - Check valve 350 bar (5000 psi)

### 2 Size

10 - 10 size

### 3 Seal Material

N - Buna-N  
V - Viton

### 4 Style

P - Poppet

### 5 Valve Housing Material

0 - None  
A - Aluminum  
S - Steel

### 6 Port Size

| Code                     | Port Size | Housing Number      |                        |                     |
|--------------------------|-----------|---------------------|------------------------|---------------------|
|                          |           | Aluminum Light Duty | Aluminum Fatigue Rated | Steel Fatigue Rated |
| <b>00 Cartridge only</b> |           |                     |                        |                     |
| 3B3/8" BSPP              | 02-175462 | -                   | -                      |                     |
| 6T SAE 6                 | 566151    | -                   | 02-175100              |                     |
| 8T SAE 8                 | -         | -                   | 02-175101              |                     |
| 2G                       | 1/4" BSPP | -                   | 876702                 | 02-175102           |
| 3G                       | 3/8" BSPP | -                   | 876703                 | 02-175103           |
| 6H                       | SAE 6     | -                   | 876700                 | -                   |
| 8H                       | SAE 8     | -                   | 876701                 | -                   |

See section J for housing details.

### 7 Free Flow Cracking Pressure

|  |                          |
|--|--------------------------|
| 003 - 0.21 bar (3 psi) (anticavitation)  | 040 - 2,76 bar (40 psi)  |
| 010 - 0.69 bar (10 psi) (anticavitation) | 065 - 4,48 bar (65 psi)  |
| 020 - 1,38 bar (20 psi)                  | 100 - 6,90 bar (100 psi) |
| 035 - 2,41 bar (35 psi)                  | 180 - 12,4 bar (180 psi) |
|  | 210 - 14,5 bar (210 psi) |

### 8 Special Features

00 - None  
(Only required if valve has special features, omitted if "00")  
SS - 316 Stainless Steel external components

## Dimensions

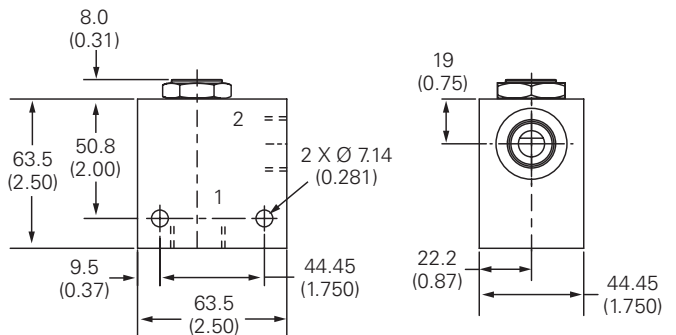
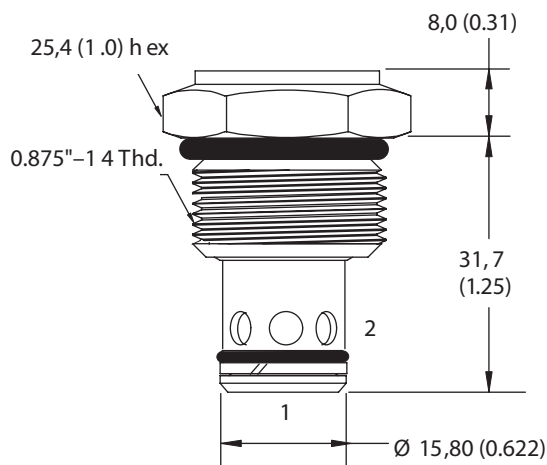
mm (inch)

Cartridge Only  
Basic Code  
CV3-10

Torque cartridge in aluminum housing 47-54 Nm (35-40 ft. lbs). Torque cartridge in steel housing 68-70 Nm (50-55 ft. lbs)  
A - 108-122 Nm (80-90 ft. lbs)

S - 136-149 Nm (100-110 ft. lbs).

## Installation Drawing (Steel)



### 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).