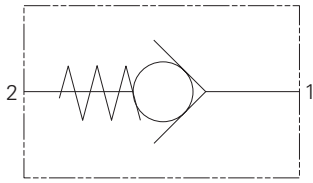


# CV1-16/CV11-16 - Check valve

Direct acting, poppet type  
151 L/min (40 USgpm) • 350 bar (5000 psi)



## Operation

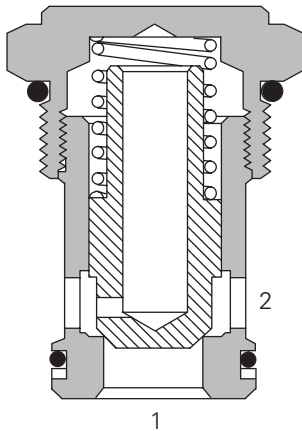
The valve remains closed until the spring bias is reached at port 1 at which time the poppet lifts off the seat and allows flow from port 1 to port 2. In the other direction the valve is closed.

## Features

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

## Sectional view

CV1-16



## 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)	CV1-16 210 bar (3000 psi)/CV11 350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	CV1-16 210 bar (3000 psi)/CV11-16 350 bar (5000 psi)
Rated flow	151 L/min (40 USgpm)
Free flow cracking pressures @ 1 L/min (0.25 USgpm)	<b>5</b> - 0,34 bar (5 psi) <b>20</b> - 1,34 bar (20 psi) <b>30</b> - 2,07 bar (30 psi) <b>40</b> - 2,67 bar (40 psi) <b>50</b> - 3,45 bar (50 psi) <b>100</b> - 6,90 bar (100 psi)

**Note:** Only the 5 psi option is available for CV11-16

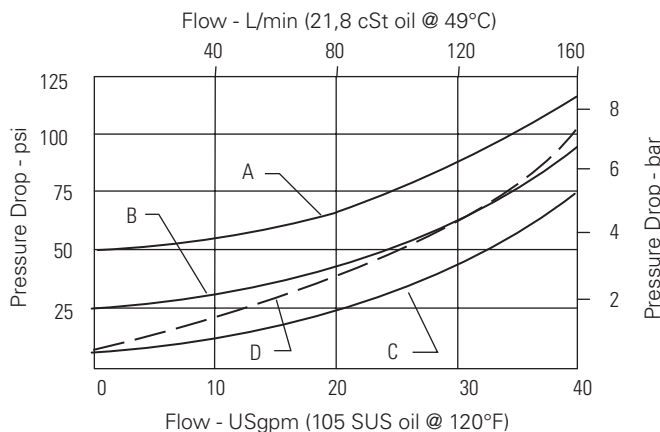
Internal leakage, Port 2 to 1	5 drops/min. maximum @ 210 bar (3000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Cavity	C-16-2
Fluids	All general purpose hydraulic fluids such as: MIL - H-5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness code 18/16/13
Standard housing materials	Aluminum or steel
Weight, cartridge only	0,26 kg (0.58 lbs.)
Seal kit	565810 (Buna-N) 889609 (Viton®)

Viton is a registered trademark of E.I. DuPont

## Description

This is a poppet type, direct acting screw-in cartridge check valve allowing free flow from port 1 to 2.

## Pressure drop



**A** - CV(\*)1-16-P-O-50

**B** - CV(\*)1-16-P-O-20

**C** - CV(\*)1-16-P-O-15

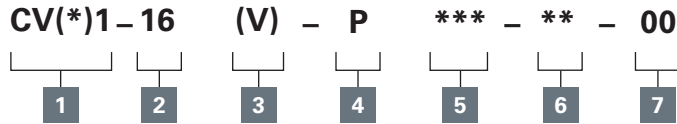
**D** - CV(\*)1-16-P-O-5

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

# CV1-16/CV11-16 - Check valve

Direct acting, poppet type  
151 L/min (40 USgpm) • 350 bar (5000 psi)

## Model code



### 1 Function

**CV1** - Check valve, 210 bar  
**CV11** - Check valve, 350 bar

### 2 Size

**16** - 16 size

### 3 Seal material

**Blank** - Buna-N  
**V** - Viton

### 4 Style

**P** - Poppet

### 5 Port size

Code	Port size	Housing number		
		Aluminum light duty	Aluminum fatigue rated	Steel fatigue rated
<b>0</b>	Cartridge only			
<b>6B</b>	3/4" BSPP	02-175463	-	
<b>10T</b>	SAE 10	-	-	02-175104
<b>12T</b>	SAE 12	566149	-	02-175105
<b>4G</b>	1/2" BSPP	-	876716	02-175106
<b>6G</b>	3/4" BSPP	-	876718	02-175107
<b>10H</b>	SAE 10	-	876717	
<b>12H</b>	SAE 12	-	566113	

See section J for housing details.

### 6 Cracking pressure

**5** - 0,34 bar (5 psi)  
(Anti-cavitation)  
**20** - 1,34 bar (20 psi)  
**30** - 2.07 bar (30 psi)  
**40** - 2.67 bar (40 psi)  
**50** - 3.45 bar (50 psi)  
**100** - 6.90 bar (100 psi)

### 7 Special features

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

## Dimensions

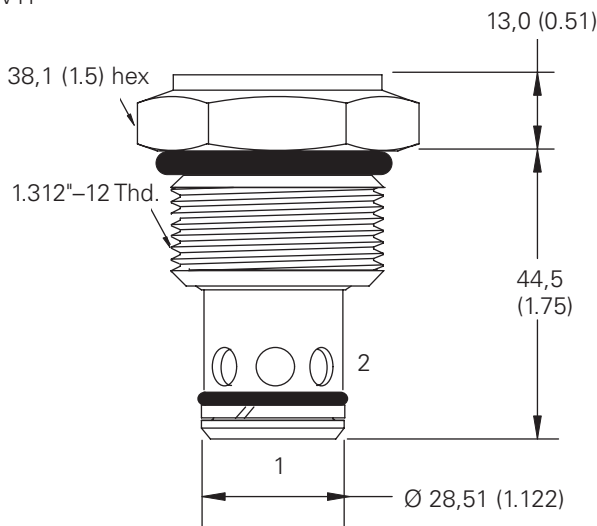
mm (inch)

Torque cartridge in housing  
**A** - 108-122 Nm (80-90 ft lbs)  
**S** - 136-149 Nm (100-110 ft lbs)

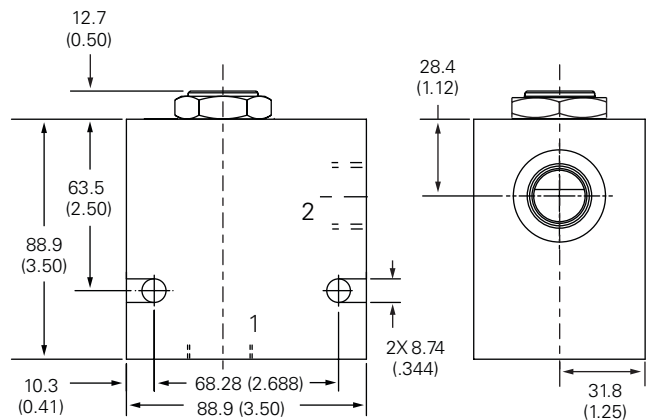
### Cartridge only

Basic code

CV1, CV11



### Installation drawing (Aluminum)



### 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).

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