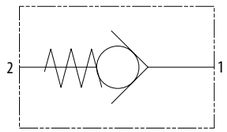
CV11-12 - Check valve

Direct acting, poppet type
114 L/min (30 USgpm) • 350 bar (5000 psi)



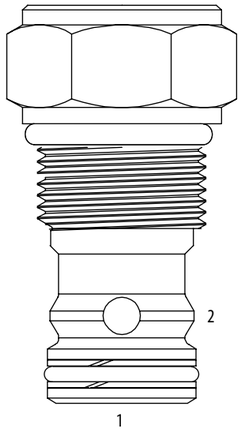
Operation

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.

Pilot operation

Hardened and ground working parts to limit leakage and extend service life. Robust design with a 350 bar max pressure rating.

Sectional view



Performance data

Ratings and specifications

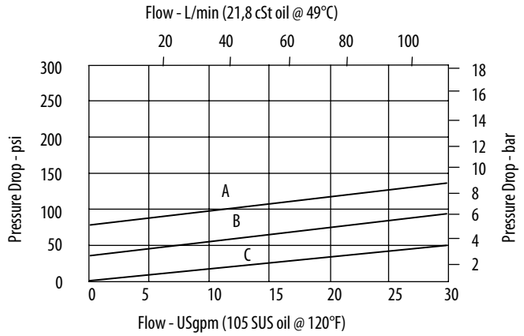
Performance data is typical with fluid at 21,8 cST (105 SUS) and 49°C (120°F)	
Typical application pressure (all ports)	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated flow	114 L/min (30 USgpm)
Free flow cracking pressures @ 1.0 L/min (0.25 USgpm)	**2.5** - 0.17 bar (2.5 psi) **5.0** - 0.35 bar (5 psi) **10.0** - 0.69 bar (10 psi) **20.0** - 1.38 bar (20 psi) **40.0** - 2,76 bar (40 psi) **80.0** - 5,50 bar (80 psi) **160.0** - 11,0 bar (160 psi)
Internal leakage, Port 2 to 1	5 drops/min. maximum @ 350 bar (5000 psi)
Hysteresis	Less than 0,35 bar (5 psi)
Temperature range	–40° to 120°C (–40° to 248°F)
Cavity	C-12-2 or C-12-2U
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	0,24 kg (0.54 lbs.)
Seal kit	02-165889 (Buna-N) 02-165888 (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 – CV11-12-P-O-80
B – CV11-12-P-O-20
C – CV11-12-P-O-2.5

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

CV11-12 - Check valve

Direct acting, poppet type
114 L/min (30 USgpm) • 350 bar (5000 psi)

Model code

CV11 – 12 (V) – P – (*) * (U) – ** – 00**

1 2 3 4 5 6 7 8 9

1 Function

CV11 - Check valve

2 Size

12 - 12 size

3 Seal material

Blank - Buna-N
V - Viton

4 Style

P - Poppet

5 Valve housing material

Omit for cartridge only
A - Aluminum
S - Steel

6 Port size

Code	Port size	Housing number: C-12-2U Aluminum light duty	C-12-2 Aluminum fatigue rated	C-12-2U Steel fatigue rated	C-12-2 Steel fatigued rated
0	Cartridge only				
10T	SAE 10	02-160641	02-160640	02-169817	02-169744
12T	SAE 12	02-160645	02-160644	02-168790	02-169782
4G	1/2" BSPP	02-161116	02-161118	02-172512	02-172062
6G	3/4" BSPP	02-161115	02-161117	02-162922	02-169665

See section J for housing details.

7 Cavity

Blank - Cavity without undercut
U - Cavity with undercut

8 Cracking pressure

2.5 - 0,17 bar (2.55 psi)
5.0 - 0,35 bar 5 psi)
10 - 0,69 bar (10 psi)
20 - 1,38 bar (20 psi)
40 - 2,75 bar (40 psi)
80 - 5,50 bar (80 psi)
160 - 11,0 bar (160 psi)

9 Special features

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

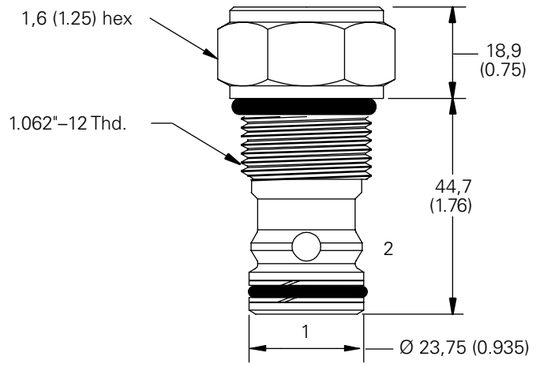
Dimensions

mm (inch)

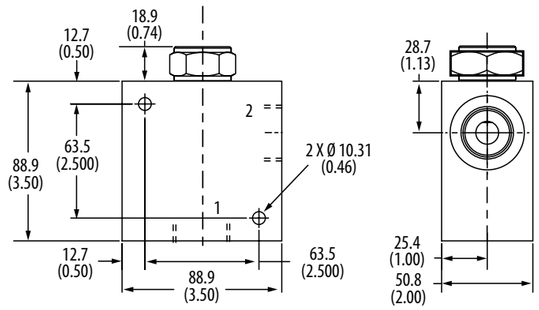
Torque cartridge in housing
A - 81-95 Nm (60-70 ft. lbs).
S - 102-115 Nm (75-85 ft. lbs).

Cartridge only

Basic code
CV11



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).

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