

CV11-12

Check valve

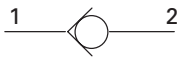
Description

The CV11-12 is a poppet type, screw-in cartridge check valve.

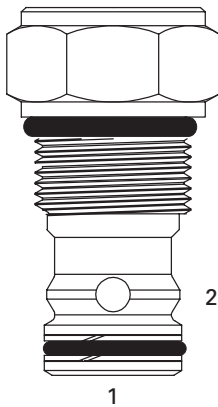
Operation

This 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.

Functional Symbol



Profile View



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 pressure @ 1 L/min (0.25 USgpm)	2.5 – 0,17 bar (2.5 psi) 5.0 – 0,35 bar (5.0 psi) 10 – 0,69 bar (10 psi) 20 – 1,38 bar (20 psi) 40 – 2,76 bar (40 psi) 80 – 5,50 bar (80 psi) 160 – 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-U
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 lb)
Seal kit	02-165889 Buna-N 02-165888 Viton®

Viton is a registered trademark of E.I.DuPont

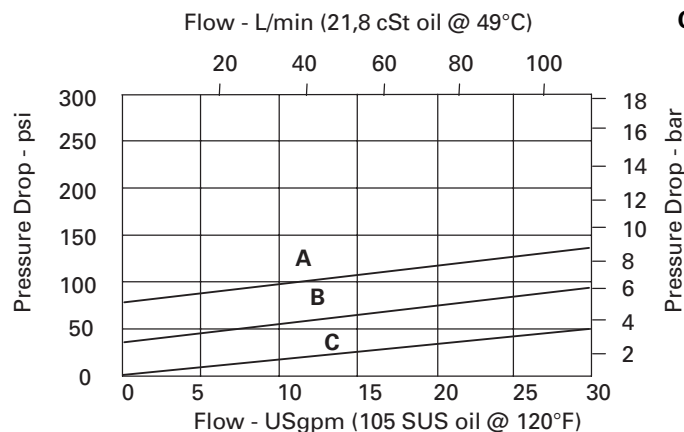
Pressure Drop Curves

Cartridge only

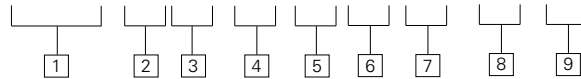
A – CV11-12-P-O-80

B – CV11-12-P-O-20

C – CV11-12-P-O-2.5



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



- 1 Function**
CV11 – Check valve

- 2 Size**
12 – 12 Size

- 3 Seals**
Blank – Buna-N
V – Viton®

- 4 Style**
P – Poppet

- 5 Valve housing material**
Omit for cartridge only
A – Aluminum
S – Steel

- 6 Port size**
0 – Cartridge only

CODE	PORT SIZE	HOUSING NUMBER			
		C-12-2U Aluminum Fatigue rated	C-12-2 Aluminum Fatigue rated	C-12-2U Steel Fatigue rated	C-12-2 Steel Fatigue rated
10T	SAE 10	02-160641	02-160640	02-169817	02-169744
12T	SAE 12	02-160645	02-160644	02-169790	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 (2.5 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)



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).

