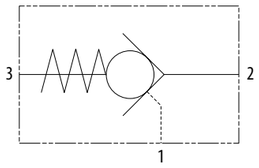
SPC2-10 - Check valve

Pilot-to-open, poppet type
23 L/min (6 USgpm) • 210 bar (3000 psi)



Operation

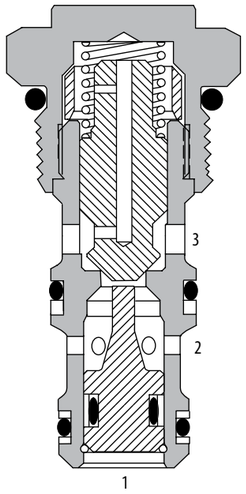
Pressure on the valve port 2 causes the poppet to lift against the spring force, allowing the flow to the cylinder port 3. Reverse flow is prevented by the poppet reseating.

Pressure applied to the pilot port 1 will overcome the cylinder port pressure and lift the poppet from its seat, allowing flow from the cylinder to valve port.

Features

Hardened and ground poppet gives excellent flow capability for valve size, positive sealing and long working life. Cartridge construction allows installation in actuators, manifold blocks and Hydraulic Integrated Circuits. Fits the same cavity as the overcenter valves of a similar size.

Sectional view



Description

Pilot check valves allow flow to pass in one direction, with a low pressure drop, then prevent reverse flow until pilot pressure is applied. There are many applications for this valve type, the most common being to lock and hold a cylinder, or another hydraulic actuator, in position.

These valves are ideally suited for fitting directly into a cylinder, giving economy of installation, direct control of cylinder movement and ease of servicing.

⚠ Warning

Do not use Single Pilot Check Valves in load holding applications where either overrunning loads are possible or load release speed is critical. Failure to observe these guidelines may result in bodily injury or damage to equipment.

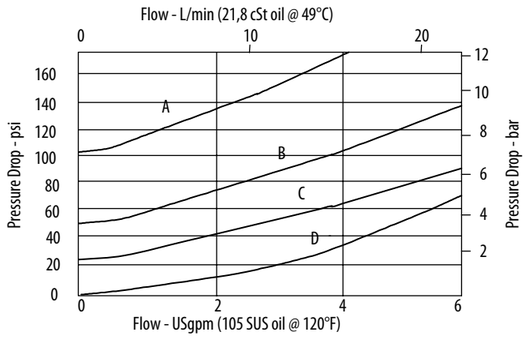
Performance data

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)		210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)		210 bar (3000 psi)
Rated flow		23 L/min (6 USgpm)
Pilot ratio		4:1
Cracking pressure @ 1 L/min (0.25 USgpm)		025 - 1,72 bar (25 psi) 050 - 3,45 bar (35 psi) 100 - 6,90 bar (100 psi)
Internal leakage	Port 3 to 2	5 drops/min. maximum at 210 bar (3000 psi)
Temperature range		–40° to 120°C (–40° to 248°F)
Cavity		C-10-3
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
Weight, cartridge only		0,08 kg (0.18 lbs.)
Seal kit (check valve)		02-153267 (Buna-N) 02-173666 (Viton®)

Viton is a registered trademark of E.I. DuPont

Pressure drop



A – SPC2-10-P-0-100
B – SPC2-10-P-0-50
C – SPC2-10-P-0-25
D - Port 3 to 2 (piloted open)

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

SPC2-10 - Check valve

Pilot-to-open, poppet type
23 L/min (6 USgpm) • 210 bar (3000 psi)

Model code

SPC2 – 10 (X) – P – ** – * – 00**

1 2 3 4 5 6 7

1 Function

SPC2 - Single pilot check valve

2 Size

10 - 10 size

3 Seal material

Blank - Buna-N
V - Viton
U - Buna-N with no piston seals
W - Viton with no piston seals

4 Style

P - Poppet

5 Port size

Code	Port size	Housing number	
		Aluminum light duty	Aluminum fatigue rated
0	Cartridge only		
3B	3/8" BSPP	02-173358	–
6T	SAE 6	566162	–
2G	1/4" BSPP	–	876705
3G	3/8" BSPP	–	876714
6H	SAE 6	–	876704
8H	SAE 8	–	876711

See section J for housing details.

6 Free flow cracking pressure

25 - 1,72 bar (25 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)

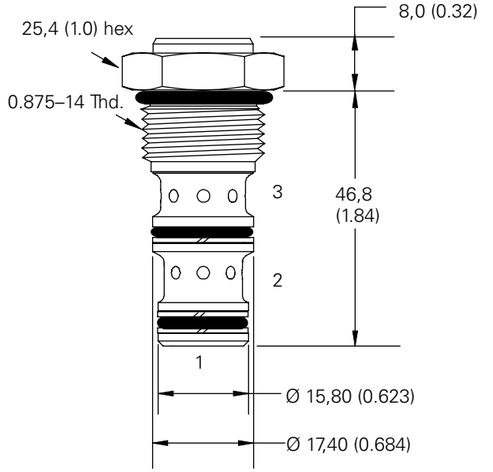
Torque cartridge housing

A - 47-54 Nm (35-40 ft. lbs).
B - 68-70 Nm (50-55 ft. lbs).

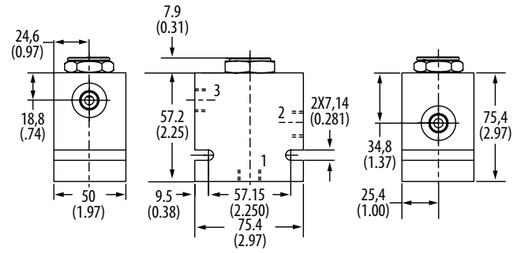
Cartridge drawing

Basic code

SPC2-10



Installation drawing



⚠ 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.