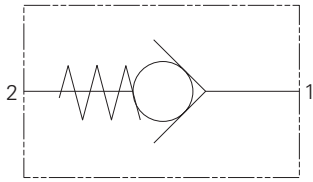


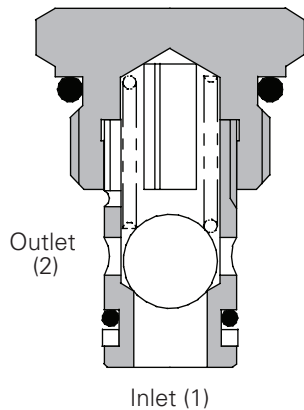
3CA20 - Check Valve

Direct acting, ball type

40 L/min (10 USgpm) • 350 bar (5000 psi)



Sectional View



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

Cartridge design with machined seats and precision ground balls gives excellent flow reseal characteristics. Installation into the 2-port 7/8" UNF cavity gives easy fitment and serviceability.

Performance Data

Ratings and Specifications

Figures based on oil temperature of 40° C and viscosity of 32 cSt (150 SUS)

| | |
|--------------------|---------------------|
| Rated flow | 40 L/min (10 USgpm) |
| Maximum pressure | 350 bar (5000 psi) |
| Cracking pressures | 0.5 bar (7 psi) |
| | 1.5 bar (22 psi) |
| | 3.5 bar (50 psi) |
| | 7.0 bar (100 psi) |

| | |
|------------------------------|--|
| Cartridge material | All steel construction. External parts electroless zinc plated. |
| Standard housing material | Standard aluminum (up to 210 bar). Add suffix "377" for steel option. |
| Mounting position | Unrestricted |
| Cavity number | A879 (See Section M) |
| Torque cartridge into cavity | 45 Nm (33 lbs. ft.) |
| Weight | 0.05 kg (0.11 lbs.) |
| Seal kit number | SK396 (Nitrile), SK396V (Viton®) |
| Recommended filtration level | BS5540/4 Class 18/3 (25 micron nominal) |
| Operating temperature | -30°C to +90°C (-22°C to +194°F) |
| Leakage | 0.2 ml/min nominal |
| Nominal viscosity range | 5 to 500 cSt |

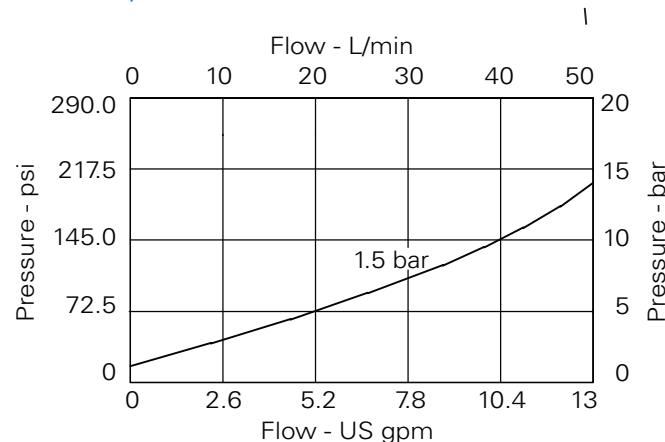
Viton is a registered trademark of E. I. DuPont

Description

These cartridge check valves allow flow at a low pressure drop, with cracking pressure from 0.5 to 7 bar (7 to 100 psi) in the free flow direction and close to prevent flow in the reverse direction.

They fit into simply machined cavities and are therefore ideal for installation into custom designed Hydraulic Integrated Circuits, manifold blocks and other hydraulic equipment.

Pressure Drop Curves

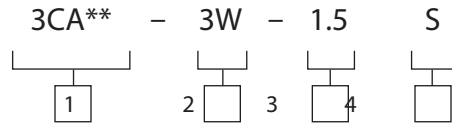


3CA20 - Check Valve

Direct acting, ball type

40 L/min (10 USgpm) • 350 bar (5000 psi)

Model Code



1 Basic Code
3CA20 - Cartridge only
3CA25 - Cartridge and body

2 Port Size

| Code | Port Size | Housing Number - Body Only | |
|------|-----------|----------------------------|--------|
| | | Aluminium | Steel |
| 2W | 1/4" BSP | A1485 | |
| 3W | 3/8" BSP | A1043 | A14175 |
| 6T | 3/8" SAE | A15676 | A14843 |

3 Cracking Pressure
0.5 - 0.5 bar (7 psi)
1.5 - 1.5 bar (22 psi)
3.5 - 3.5 bar (50 psi)
7.0 - 7.0 bar (100 psi)

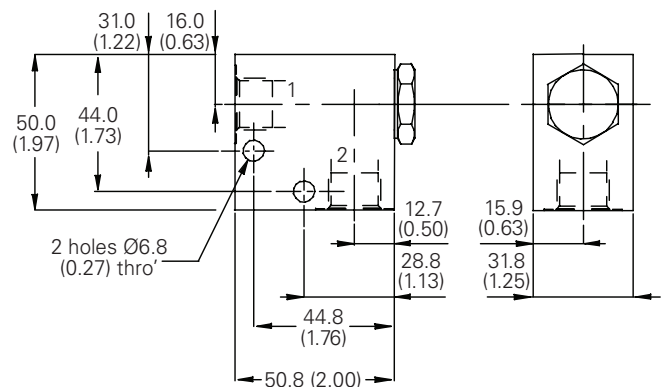
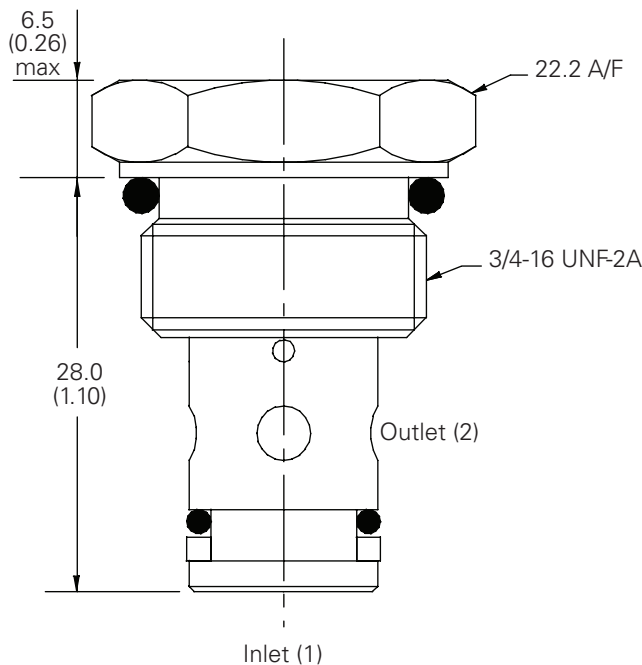
4 Seals
S - Nitrile (For use with most industrial hydraulic oils)
SV - Viton (for high temperature and most special fluid applications)

Dimensions

mm (inch)

Cartridge Only

Single Valve
1/4", 3/8" Ports
Basic Code
3CA25



Note: For applications above 210 please consult our technical department or use the steel body option.

