

Check valve

Spring loaded check

$Q_{\max} = 9.4 \text{ l/min}$, $p_{\max} = 350 \text{ bar}$
hydraulic operation, ball type
Type series: CVFB-04-...



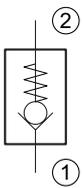
- Screw-in cartridge valve
- For cavity C0420
- All external parts zinc plated, chromited (CrVI-free)

Description

This unit is a screw-in cartridge style, guided ball, hydraulic check valve, for use as a blocking or load holding device for high pressure applications. This valve

allows free flow from port 1 to port 2 and blocks flow from port 2 to port 1 or holding a load.

Symbol



Technical data

| General Characteristics | Description, value, unit |
|------------------------------|---|
| Function group | Check valve |
| Function | Spring loaded check |
| Design | Screw-in cartridge valve |
| Controls | hydraulical operation |
| Characteristic | ball type |
| Construction size | SAE 04 / nominal size 3 |
| Thread size | 7/16-20 UNF-2A |
| Mounting attitude | unrestricted |
| Weight | 0.04 kg |
| Cavity acc. factory standard | For cavity C0420 |
| Tightening torque steel | 15 Nm |
| Tightening torque aluminium | 15 Nm |
| Tightening torque tolerance | ± 3 % |
| Minimum ambient temperature | - 30 °C |
| Maximum ambient temperature | + 120 °C |
| Surface protection | All external parts zinc plated, chromited (CrVI-free) |
| Available seal types | several seal types available, see ordering code |
| Seal kit order number | NBR: SKN-0421 / FKM: SKV-0421 |

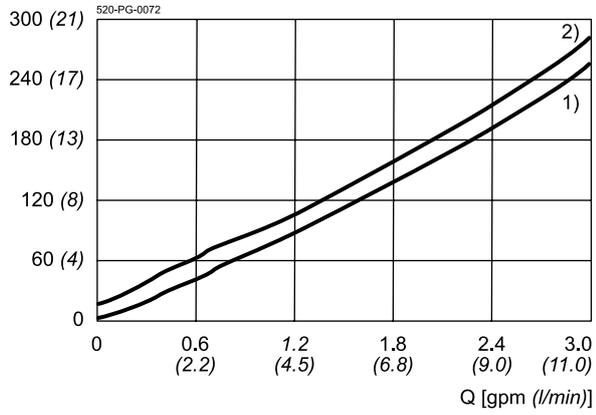
| Hydraulic Characteristics | Description, value, unit |
|--|---|
| Maximum operating pressure | 350 bar |
| Maximum flow rate | 9.4 l/min |
| Flow direction | see symbol |
| Hydraulic fluid | All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc. |
| Minimum fluid temperature | - 25 °C |
| Maximum fluid temperature | + 80 °C |
| Viscosity range | 10 ... 500 mm ² /s (cSt) |
| Recommended viscosity range | 15 ... 250 mm ² /s (cSt) |
| Minimum fluid cleanliness (cleanliness class according to ISO 4406:1999) | class 18/16/13 |
| Internal leakage flow rate | 5 drops/min maximum at 350 bar |

Performance graphs

measured with oil viscosity 28.5 mm²/s (cSt)

$\Delta p = f(Q)$ Pressure drop-flow rate characteristic

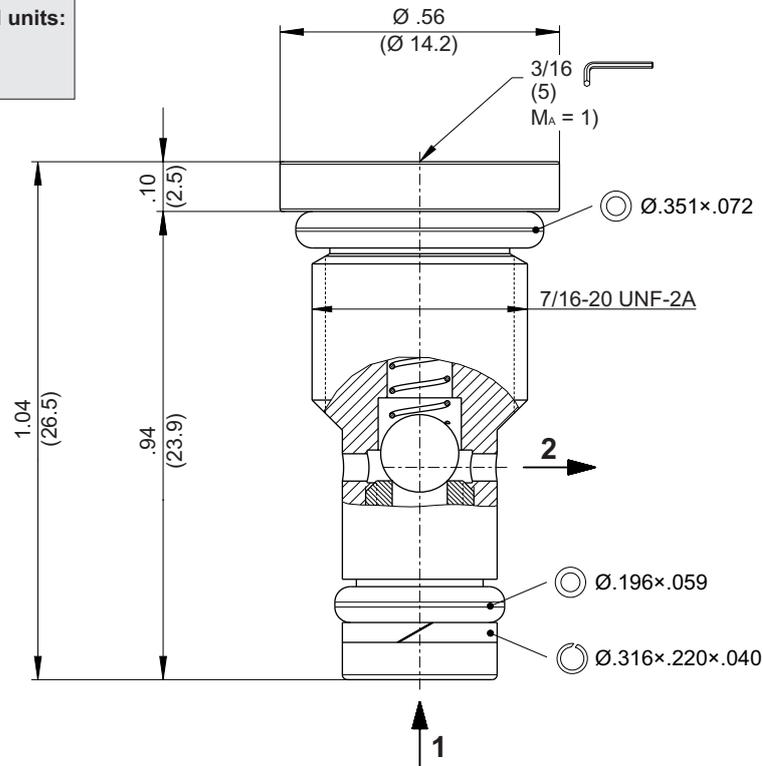
Δp [psi (bar)]



1) = p_N 5 psi (0.35 bar)
2) = p_N 20 psi (1.5 bar)

Dimensions and sectional view

Beispiel für die Masseinheit:
Example for the dimensional units:
 .031 = 0.031" inch
 (0.79) = 0.79 mm millimeter



Installation information



ATTENTION!

Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.



NOTE!

1) When fitting the screw-in cartridge valve, use the specified tightening torque. The value can be found in the chapter "Technical data".



NOTE!

The seals are not available individually. The seal kit order number can be found in the chapter "Technical data".

Ordering code

e.g. CVFB - 04 - N - 0 - 005

CVFB = spring loaded check valve

04 = nominal size SAE 04 / NG 3

N = NBR (nitril-butadien-rubber / BUNA) seals (*standard*)

V = FKM (fluorocarbon rubber / VITON) seals
(*special seals - please consult BUCHER*)

0 = screw-in cartridge only

005 = opening pressure 5 psi

020 = opening pressure 20 psi

Related data sheets

| Reference | Description |
|--------------|--------------|
| 520-P-000050 | Form tools |
| 520-P-000100 | Cavity C0420 |