Check valve
Spring loaded check

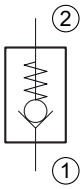
Q_{max} = 2.5 gpm, p_{max} = 5000 psi
hydraulical operation, ball type
Type series: CVFB-04-...

- 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

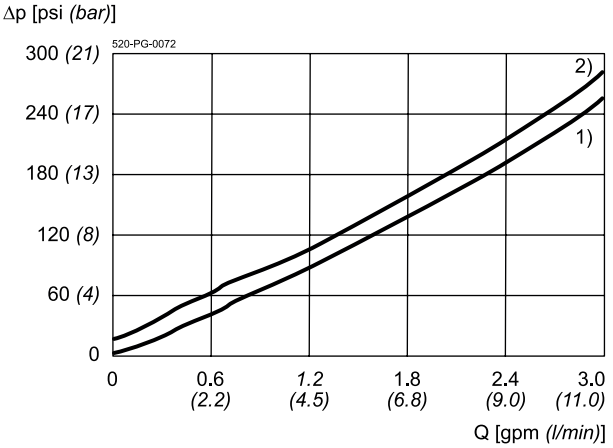
General Characteristics	Description, value, unit
Function group	Check valve
Function	Spring loaded check
Design	Screw-in cartridge valve
Controls	hydraulical operation
Characteristic	ball type
Construction size	SAE 04 / nominal size 3
Thread size	7/16-20 UNF-2A
Mounting attitude	unrestricted
Weight	0.08 lb
Cavity acc. factory standard	For cavity C0420
Tightening torque steel	11 ft·lb
Tightening torque aluminium	11 ft·lb
Tightening torque tolerance	± 3 %
Minimum ambient temperature	- 22 °F
Maximum ambient temperature	+ 248 °F
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	5000 psi
Maximum flow rate	2.5 gpm
Flow direction	see symbol
Hydraulic fluid	All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.
Minimum fluid temperature	- 13 °F
Maximum fluid temperature	+ 176 °F
Viscosity range	10 ... 500 mm^2/s (cSt)
Recommended viscosity range	15 ... 250 mm^2/s (cSt)
Minimum fluid cleanliness (cleanlineless class according to ISO 4406:1999)	class 18/16/13
Internal leakage flow rate	5 drops/min maximum at 5000 psi

Performance graphs

measured with oil viscosity 28.5 mm²/s (cSt)

Δp = f (Q) Pressure drop-flow rate characteristic

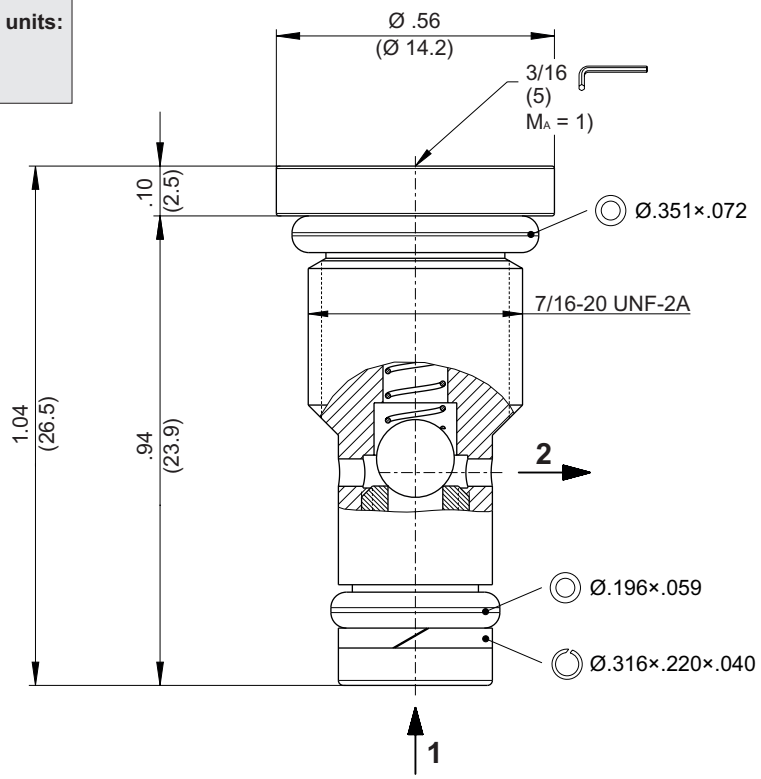


1) = p_N 5 psi *(0.35 bar)*
2) = p_N 20 psi *(1.5 bar)*

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

NOTE!
1) When fitting the screw-in cartridge valve, use the specified tightening torque. The value 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

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