

Check valve

Spring loaded check

$Q_{\max} = 160 \text{ l/min}$, $p_{\max} = 500 \text{ bar}$

direct acting, poppet type

Type series: RVP 16...



- Screw-in cartridge valve
- All external parts burnished
- Compact construction
- High-pressure model
- Seat tight shut-off
- Hardened precision fitted poppet and cage provides reliable and long life
- Various opening pressures
- High flow rates with low Δp

Description

Series RVP... check valves are size 16, high performance screw-in valves with an M30x1,5 mounting thread. The valves are designed on the proven poppet/seat principle and are leak-tight in the flow direction B to A. Different variants with a fixed opening pressure

are available. All external parts of the screw-in valves are burnished, allowing them to be stored and used indoors without restriction. These valves are predominantly used in mobile and industrial applications where leak-free shut-off in one direction is important.

Symbol



Technical Data

General Characteristics	Description, value, unit
Function group	Check valve
Function	Spring loaded check
Design	Screw-in cartridge valve
Controls	direct acting
Characteristic	poppet type
Construction size	size 16
Thread size	M30×1,5
Mounting attitude	unrestricted
Weight	0.15 kg
Tightening torque steel	70 Nm
Tightening torque tolerance	± 10 %
Minimum ambient temperature	- 25 °C
Maximum ambient temperature	+ 100 °C
Surface protection	All external parts burnished
Available seal types	several seal types available, see ordering code
Seal kit order number	NBR: 3000302374 / FKM: 3000302375 / MIL: 3000302376

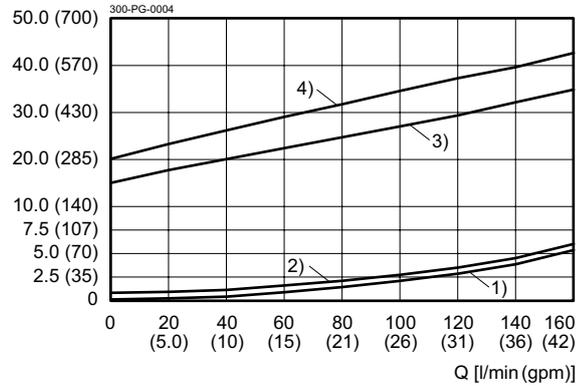
Hydraulic Characteristics	Description, value, unit
Maximum operating pressure	500 bar
Maximum flow rate	160 l/min
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil according to DIN 51 524; other fluids on request!
Minimum fluid temperature	- 20 °C
Maximum fluid temperature	+ 80 °C
Viscosity range	10 ... 650 mm ² /s (cSt)
Recommended viscosity range	15 ... 250 mm ² /s (cSt)
Minimum fluid cleanliness (cleanliness class according to ISO 4406:1999)	class 20/18/15
Opening pressure	0.3 / 1 / 15 / 20 bar

Performance graphs

measured with oil viscosity 33.0 mm²/s (cSt)

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

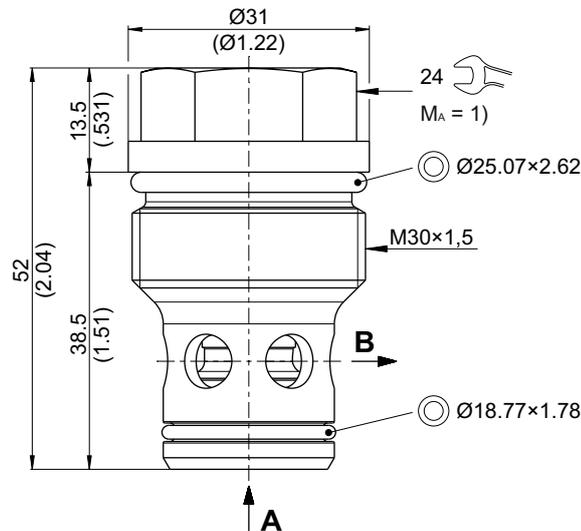
Δp [bar (psi)]



- 1) = RVP 16/0.3
- 2) = RVP 16/1
- 3) = RVP 16/15
- 4) = RVP 16/20

Dimensions and sectional view

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



Installation information



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".

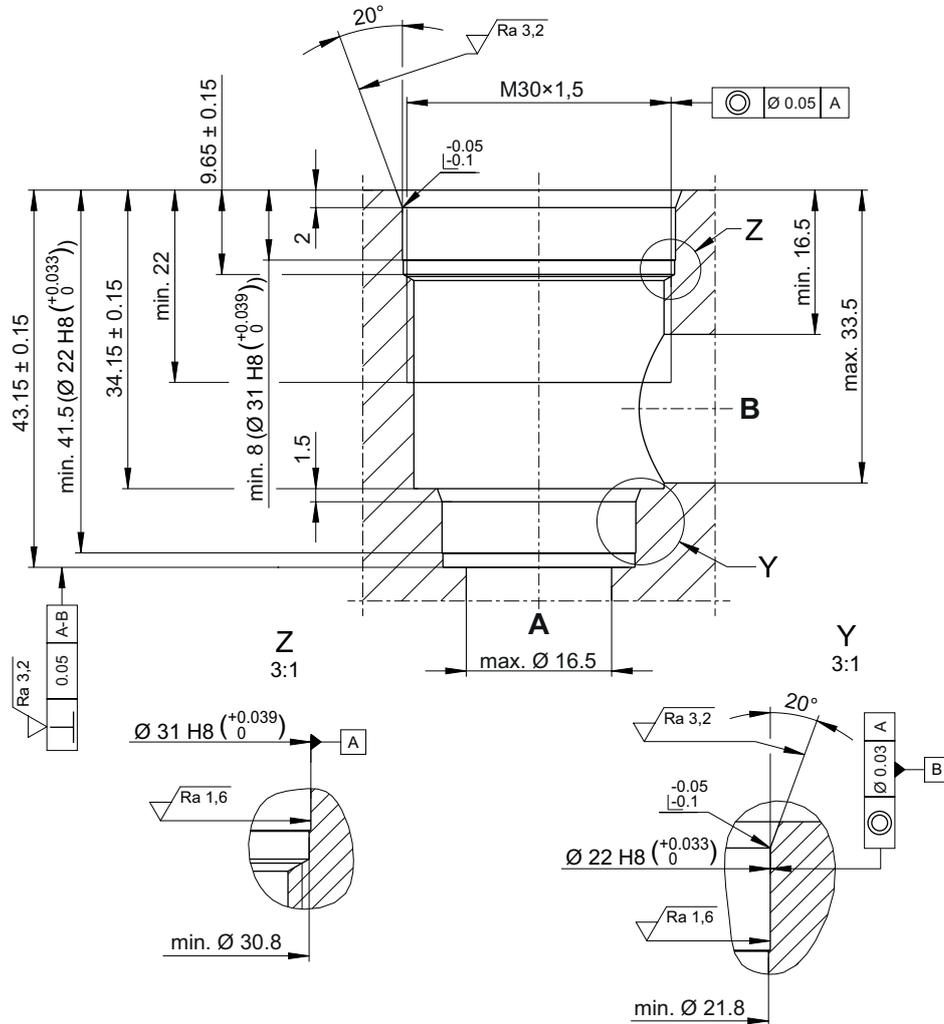


ATTENTION!

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.

Cavity

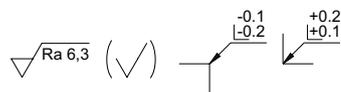
Beispiel für die Masseinheit:
Example for the dimensional units:
0.79 = 0.79 mm millimeter



HINWEIS!
NOTE!

Empfohlene Anschlussbohrungen:
Recommended connection bores: A, B: Ø 16

Toleranzen nach: DIN ISO 2768-mK
Tolerances according to: DIN ISO 2768-mK



NOTE!

You must maintain the specified positional and diametral tolerances. To ensure trouble-free operation of the screw-in cartridges, we strongly recommend that pilot drilling, boring, reaming and cavity thread-cutting are always performed in one setup.

Ordering code

Ex. RVP 16 / 0.3 / N

- RVP = check valve, cartridge design
- 16 = size 16
- 0.3 = opening pressure 0.3 bar / 4.3 psi
- 1 = opening pressure 1 bar / 15 psi
- 15 = opening pressure 15 bar / 215 psi
- 20 = opening pressure 20 bar / 285 psi
- N = NBR (nitril-butadien-rubber / BUNA) seals (*standard*)
- V = FKM (fluorocarbon rubber / VITON) seals
- T = MIL (low temperature) seals
(*special seals - please consult BUCHER*)