

Lock valve Check valve

$Q_{\max} = 8 \text{ l/min}$, $p_{\max} = 350 \text{ bar}$

ball type

Type series: RKVE-M-03



- Screw-in cartridge valve
- No soft seal, thus not depending on temperature and pressure fluid
- Exceptionally high Q_{\max} with extremely low Δp
- Virtually leak-proof in closed condition
- Compact, customary cavity type

Description

Das Kugelrückschlagventil der Baureihe RKVE zeichnet sich durch das besonders kompakte Design aus. Das Ventil wird durch eine metallische Dichtkante abgedichtet. Das federbelastete Kugelrückschlagventil

ist sehr robust, sehr dicht und schmutzunempfindlich. Ventilsitz, Kugel und Gehäuse sind gehärtet. Der hydraulische Volumenstrom wird in Einschraubrichtung (B zu A) gesperrt und in Gegenrichtung freigegeben.

Symbol



Technical data

General characteristics	Description, value, unit
Function group	Lock valve
Function	Check valve
Design	Screw-in cartridge valve
Characteristic	ball type
Construction size	nominal size 03
Thread size	M8×0,75
Mounting attitude	unrestricted
Weight	0.004 kg
Tightening torque steel	8 Nm

Hydraulic characteristics	Description, value, unit
Maximum operating pressure	350 bar
Maximum flow rate	8 l/min
Nominal flow rate	6 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	- 30 °C
Maximum fluid temperature	+ 120 °C
Viscosity range	10 ... 500 mm ² /s (cSt)
Minimum fluid cleanliness (cleanliness class according to ISO 4406:1999)	class 20/18/15
Opening pressure	0.2 / 0.5 / 1.0 bar

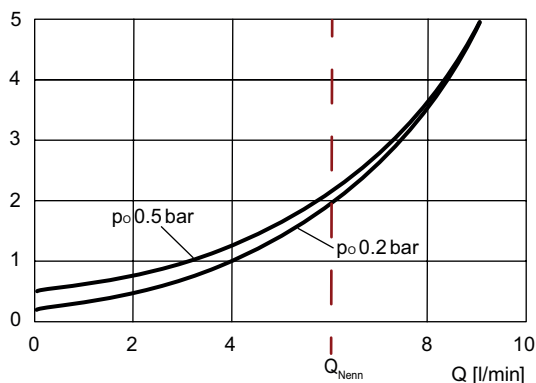
i **NOTE!**
For other values please contact Bucher Hydraulics.

Performance graphs

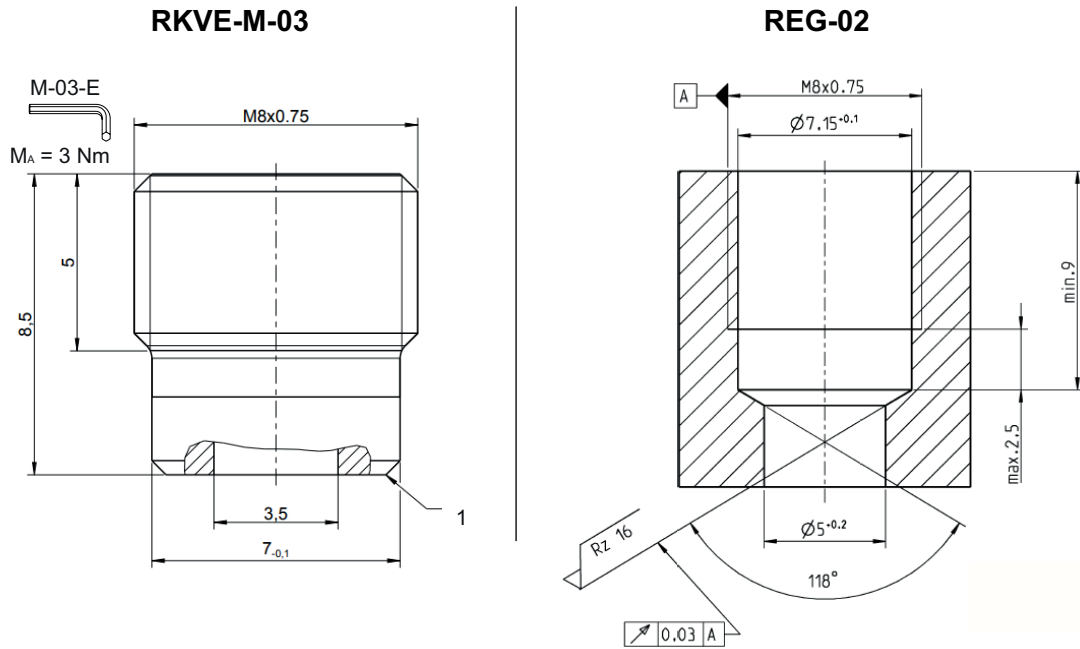
measured with oil viscosity 33.0 mm²/s (cSt)

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

Δp [bar]



Dimensions and sectional view



RKVE-M-03 = lock valve / screw-in cartridge valve
 REG-02 = dimension of the cavity for screw-in cartridge valve RKVE-M-03
 1 = sealing edge for metal-to-metal sealing
 The dimensions specified apply to the mounted state..

Installation information



NOTE!

When fitting the screw-in cartridge valve, use the specified tightening torque. The value can be found in the chapter "Technical data". Orifices or nozzles are to be placed after the check valve. If this is not possible, a right-angled bore must be designated between the check valve and the nozzle. (see data sheet 170-P-059000). Suitable fitting tools are available at Bucher Hydraulics (see data sheet 170-P-051600).



ATTENTION!

When fitting the valve, make sure that it is firmly seated on the sealing surface and that it is not deformed by the use of excessive force.

Application Notes



NOTE!

The maximum operating pressure must not be exceeded even when pressure peaks occur. In applications such as accumulator circuits, where sudden pressure can be applied to the valve in the free-flow direction, ensure that the specified flow ratings are not exceeded. Buyers bear the sole responsibility for ensuring that the valve is suitable for their applications and must be substantiated by trials or testing, if necessary.



ATTENTION!

The valves are only suitable for pressure relief in the opening direction to a limited extent (if necessary, please consult Bucher Hydraulics).

Ordering code

RKVE - M - 03 - 02 - Z4

RKVE = screw-in cartridge valve

M = thread metric M8 x 0,75

03 = nominal size 03, Q_{Nominal} 6 l/min

02 = opening pressure 0,2 bar (Item number: 170628212)

05 = opening pressure 0,5 bar (Item number: 170628210)

Z4 = damped design

Related data sheets

Reference	Description
170-P-059000	Using nozzles or orifices before a check valve
170-P-051600	Mounting tool for series RKVE... and RV...