# Lock valve
# Check valve

$Q_{max}$ = 8 l/min, $p_{max}$ = 350 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 Qmax with extremely low Δp
- Virtually leak-proof in closed condition
- Compact, customary cavity type

## Description

The series RKVE spherical poppet-type check valve is chaaracterized by a robust and compact design. A metal cutting lip on the valve provides a metal-to-metal seal. The spring-closed spherical poppet-type check valves are very robust, have a very low leakage and are tolerant of contamination. The valve seat, poppet, and body are hardened. The valves prevent flow in the screw-in direction (B to A) with no leakage. In the opposite direction, they open at the desired opening pressure.

## Symbol


## Technical data

| General characteristics | Description, value, unit |
|---|---|
| Function group | Lock valve |
| Function | Check valve |
| Design | Screw-in cartridge valve |
| Characteristic | ball type |

| General characteristics | Description, value, unit |
|---|---|
| Construction size | nominal size 03 |
| Thread size | M8×0,75 |
| Mounting attitude | unrestricted |
| Weight | 0.004 kg |
| Tightening torque steel | 8 Nm |

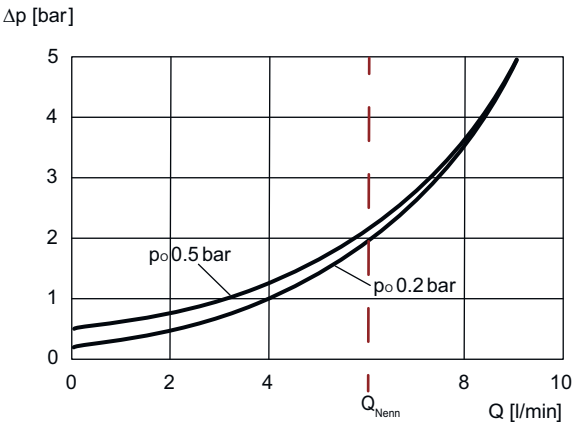
| Hydraulic characteristics | Description, value, unit |
|---|---|
| Maximum operating pressure | 350 bar |
| Maximum flow rate | 8 l/min |
| Nominal flow rate | 6 l/min |
| Flow direction | see symbol |
| Hydraulic fluid | HL and HLP mineral oil according to DIN 51 524;<br>other fluids on request! |
| Minimum fluid temperature | - 30 °C |
| Maximum fluid temperature | + 120 °C |
| Viscosity range | 10 ... 500 $mm^2/s$ (cSt) |
| Minimum fluid cleanliness<br>(cleanlineless class according to ISO 4406:1999) | class 20/18/15 |
| Opening pressure | 0.2 / 0.5 / 1.0 bar |

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

## Performance graphs

measured with oil viscosity 33.0 $mm^2/s$ (cSt)

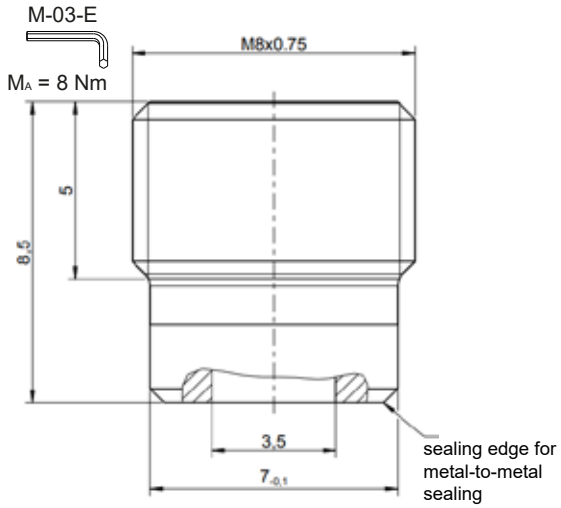
Δp = f (Q) Pressure drop-flow rate characteristic



## Dimensions and sectional view

**RKVE-M-03**

The dimensions specified apply to the mounted state.




**For cavity REG-02**

## 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).

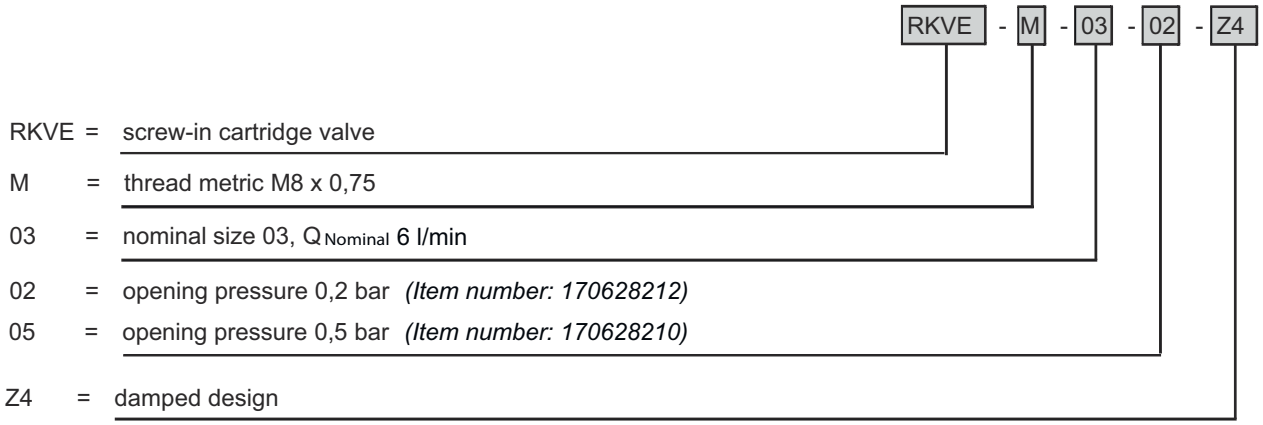
**ATTENTION!**
When fitting the valve, make sure that it is firmly seated on the sealing surface and that it is not deformed by the use of excessive force.

## 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




## Related data sheets

| Reference | Description |
|---|---|
| 170-P-059000 | Using nozzles or orifices before a Check Valve |
| 170-P-051600 | Mounting tool for check valves RKVE... and RV... |
| 170-P-080015 | Cavity REG-02-03-M |

**info.de@bucherhydraulics.com** **www.bucherhydraulics.com**