

Lock valve

Spring loaded check valve

$Q_{\max} = 1200 \text{ l/min}$, $p_{\max} = 210 \text{ bar}$

poppet type

Type series: RVSAE3-DS-21/2"-...



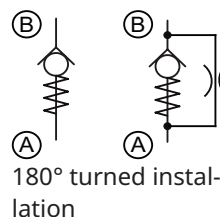
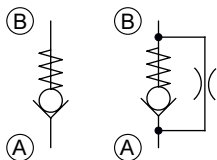
- For SAE flange ports
- High pressure rating
- Compact construction
- No-flow direction can be reversed
- Double-sided sealing
- Optional metered flow in the no-flow direction

Description

Check valves for SAE flange ports are characterized by very high load capacity, very small pressure rise and double-sided sealing. The valve can be used for 3000 psi (210 bar) SAE flange ports. The no-flow direction can be reversed by inverting the valve. The valve design is based on a guided poppet that is hardened and

ground. In the no-flow direction, the valve closes. The valve can be used for pressure relief in the opening direction, but only to a limited extent (consult Bucher Hydraulics for such applications). The valve is available in nominal size 2 1/2".

Symbol



Technical data

| General characteristics | Description, value, unit |
|-------------------------|---------------------------|
| Function group | Lock valve |
| Function | Spring loaded check valve |
| Characteristic | poppet type |
| Construction size | SAE 2 1/2" |
| Mounting attitude | unrestricted |
| Weight | 0.93 kg |

| Hydraulic characteristics | Description, value, unit |
|--|---|
| Maximum operating pressure | 210 bar |
| Maximum flow rate | 1200 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 | + 80 °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, 2, 4 bar |



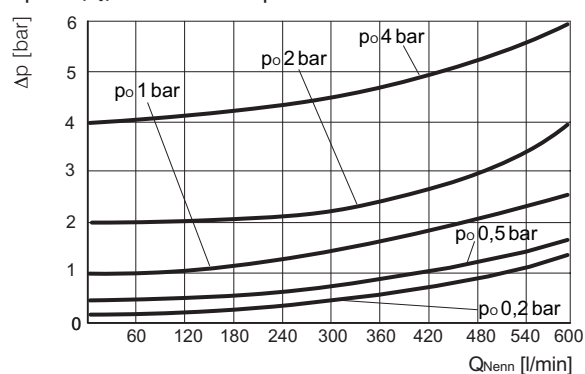
NOTE!

For other values please contact Bucher Hydraulics.

Performance graphs

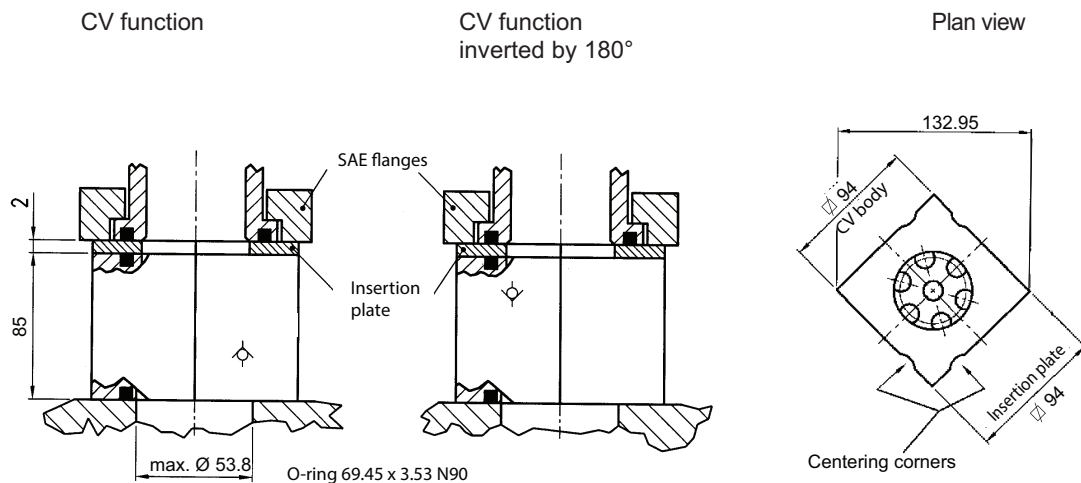
measured with oil viscosity 33.0 mm²/s (cSt)

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

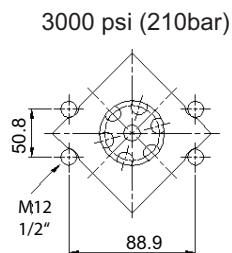


Dimensions and sectional view

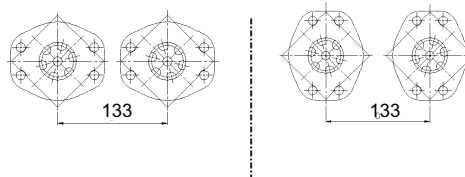
Dimensions - valves



Dimension - SAE flange port



Minimum distance between 2 SAE check valves



Installation information



NOTE!

The SAE flange mounting screws have to be tightened with the specified torque. The value can be found in the chapter technical data. By turning them through 90°, the RVSAE3/6... dual purpose bodies, the seal plates and insert plates can be used on both 3000 psi and 6000 psi ports of the same nominal size. Where a seal plate and an insert plate are added, it is seldom necessary to fit longer SAE flange connecting bolts. When you choose to add orifices or nozzles to the circuit they are to be placed after the check valve, if this is not possible, a right-angle bore must be designated between the check valve and the nozzle (see datasheet 170-P-059000).



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.

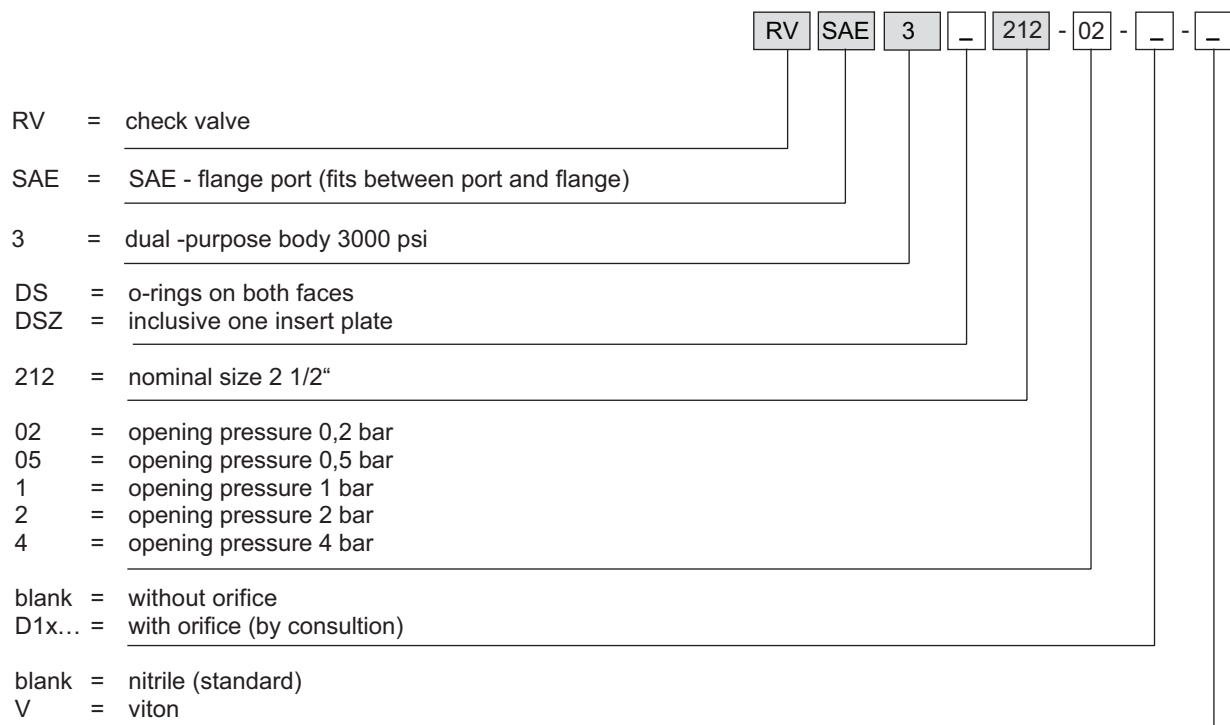
Application Note



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.

Ordering code



On request:

- other opening pressures
- special materials
- customised designs

Ordering code for the associated insert plate:

170202490 = ZPSAE-212/3 (insert plate for check valve SAE 2 1/2" 3000 psi)

Related data sheets

| Reference | Description |
|--------------|--|
| 170-P-059000 | Using nozzles or orifices before a check valve |