

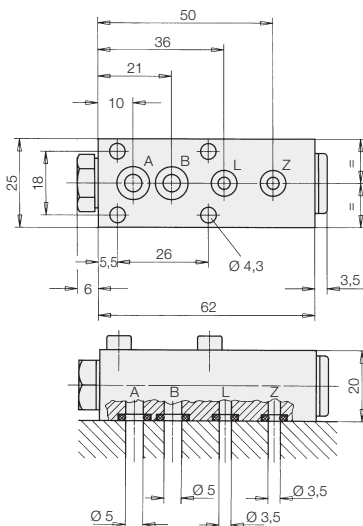
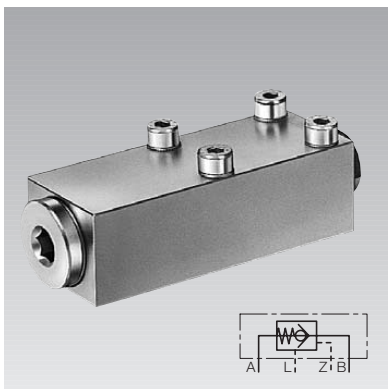


# ROEMHELD

Issue 4-94 E

# C 2.9512

## Check Valve pilot-operated, manifold-mounting type max. operating pressure 500 bar



### Connections

A, B = Main passage  
Z = Control port  
L = Leakage port  
(piston area relief)

### Technical characteristics

Type	Spring-loaded ball-type poppet valve, leakage-free
Type of mounting	4 screws M 4
Seating torque	2.6 Nm
Max. operating pressure	A, B, Z 500 bar L without pressure to oil reservoir
Max. flow rate	20 l/min
Control volume	0.2 cm <sup>3</sup>
Weight	0.25 kg
<b>Part-no.</b>	<b>2951-416</b>
O-rings are included in delivery	

### Spare O-rings

Port	Dimensions	Part-no.
A, B	6.07 x 1.78	<b>3000-942</b>
L, Z	4.47 x 1.78	<b>3000-968</b>

### General characteristics

These check valves are designed in accordance with DIN ISO 1219. According to this definition this type of valve is a locking valve. The flow B → A is free. The flow from A → B is locked, but it can be hydraulically unlocked by pressurising control port Z.

### Application

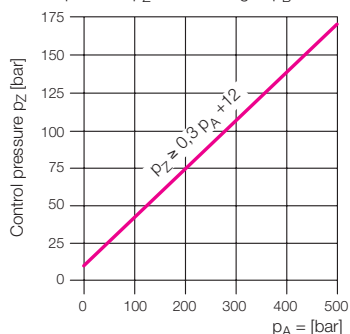
Locking of leakage-free hydraulic cylinders, i.e. for maintaining the pressure and (or) the position, can also be used in combination with non-leakage free directional control valves.

In fixtures these check valves are combined with manifold-mounted or threaded clamping elements and thus enable oil supply without pipes.

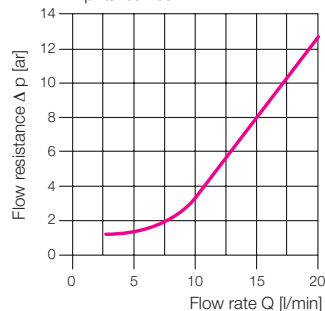
### Important note

This pilot-operated check valve is not suitable for locking of double-acting swing clamps (pull-type cylinders). Due to the unfavourable surface ratio of these elements, the control pressure is not sufficient for unlocking and dangerous pressure intensification's occur. Please contact us.

Control pressure  $p_Z$  for unlocking at  $p_B = 0$  bar



$\Delta p$ -Q-curves

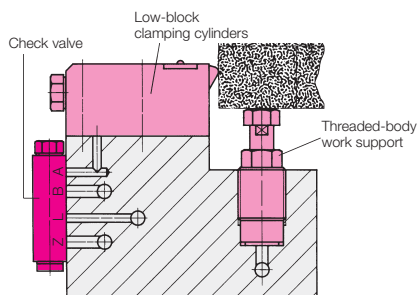


Oil viscosity during measurements 60 mm<sup>2</sup>/s

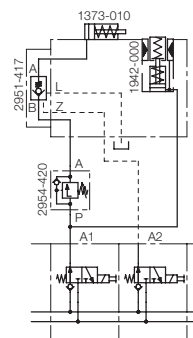
### Application example

Clamping bar for multiple clamping device. In each clamping bar there are 10 low-block clamping cylinders and threaded work supports arranged in a row.

On the opposite side there is a similar bar. This is called "floating clamping".



In order to avoid the cylinders giving way under the effect of the operating forces one pilot-controlled check valve for each cylinder is installed, which is facilitated because the valves are manifold-mounted.



Subject to change without notice