

## Trailer release valve 963 001 / 963 006



### Application

For trailers

### Purpose

Release the brake system to move the semitrailer when not coupled.

### Maintenance

Special maintenance that extends beyond the legally specified inspections is not required.

### Installation recommendation

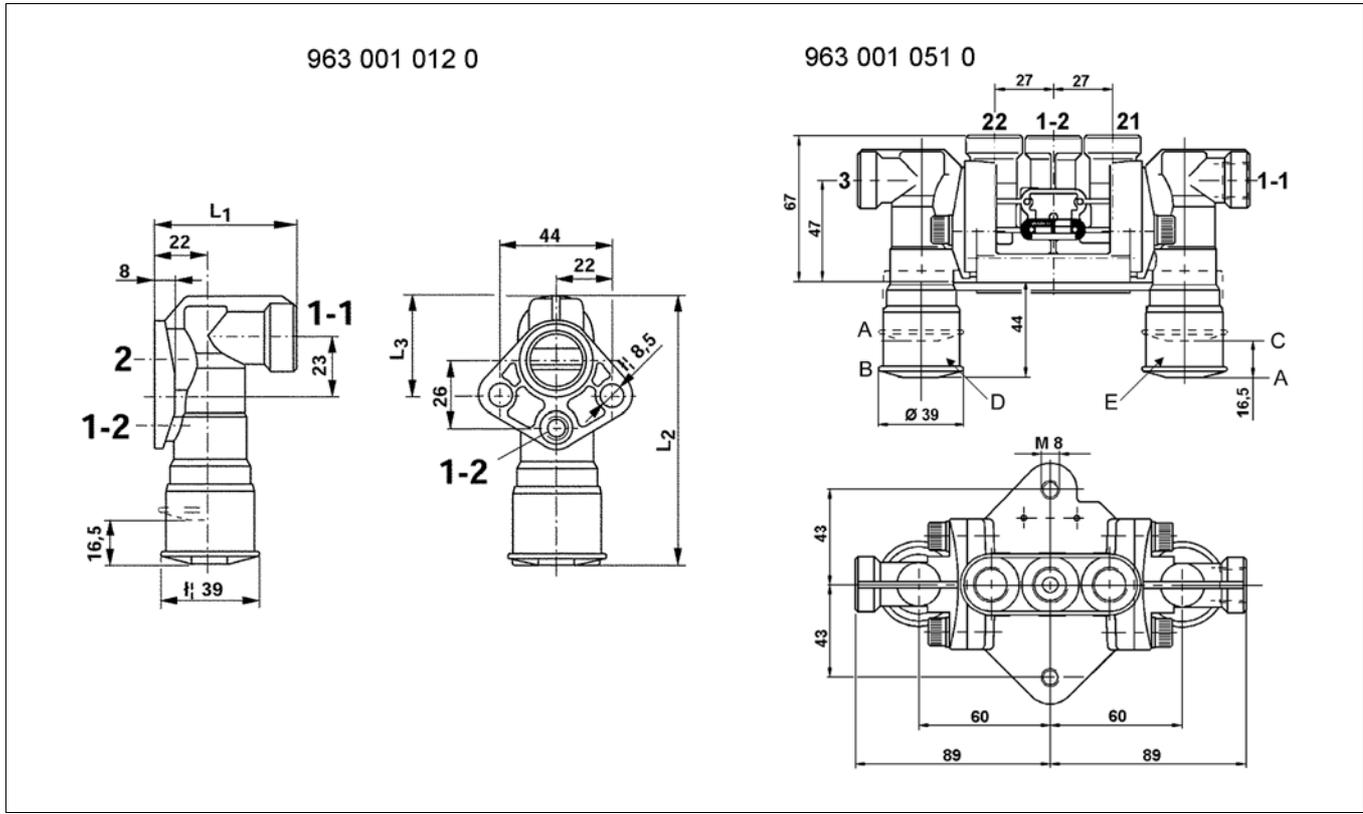
- Mount the trailer release valves 963 006 001 0, 963 006 003 0, 963 006 005 0 and the double release valves 963 001 051 0 and 963 001 053 0 so that they can be easily accessed in the frontal area of the trailer.

**!** Flange the trailer release valve 963 001 012 0 and 963 001 013 0 directly onto the trailer emergency brake valve.

- Install the trailer release valve vertically so that the actuation button faces downward.  
Permissible installation position:  $\pm 90^\circ$
- Fasten the trailer release valve with two M8 bolts.

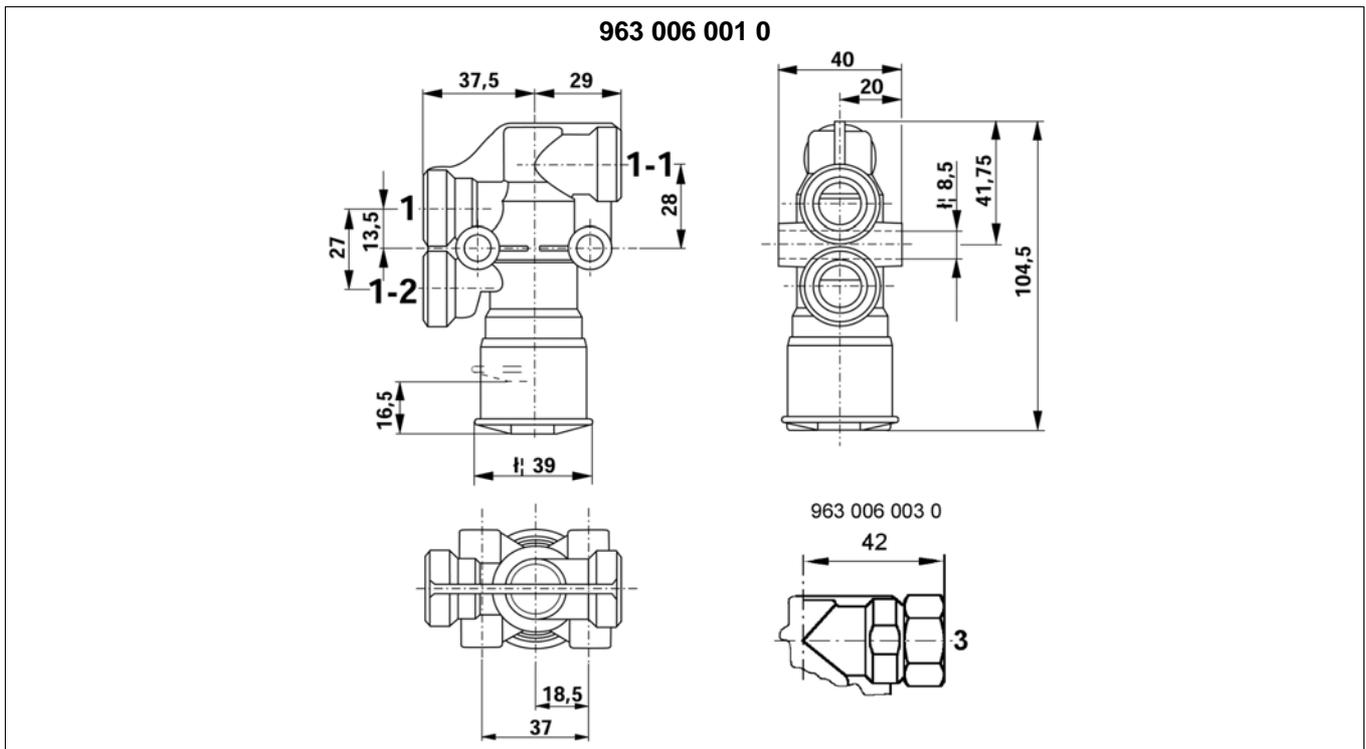
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## Installation dimensions



Connections		Port threads		Legend	
1-1	Energy supply	1-2	Energy supply (Reservoir)	A	Driving position
2	Energy delivery	3	Exhaust	B	Parking position
21	Energy delivery (Trailer emergency brake valve)	22	Energy delivery (Spring brake cylinder)	C	Release position
				D	Black actuation button
				E	Red actuation button

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## Connections

1-1	Energy supply	1-2	Energy supply (Reservoir)	2	Energy delivery
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## Technical data

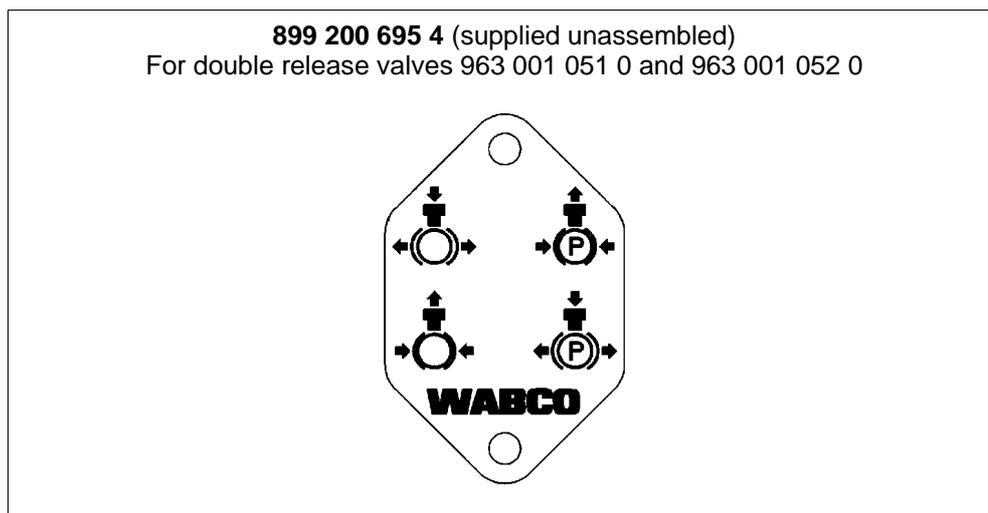
Order number	963 001 012 0	963 001 013 0	963 001 051 0 963 001 053 0	963 006 001 0	963 006 003 0	963 006 005 0
Max. operating pressure	8.5 bar					
Min. nominal width 1-1 => 2	Ø 8		-		Ø 8	
Min. nominal width 1-2 => 2	Ø 6		-		Ø 6	
Port threads	M 16x1.5 - 13 deep	M 22x1.5 - 13 deep	M 16x1.5 - 13 deep			
Installation dimensions L <sub>1</sub>	51 mm	54.5 mm	-			
Installation dimensions L <sub>2</sub>	104.5 mm	107 mm	-			
Installation dimensions L <sub>3</sub>	36.7 mm	39 mm	-			
Colour of the actuation button	Black		Two buttons: Black/red	Black	red	green
Permissible medium	Air					
Operating temperature range	-40 °C to +80 °C					
Weight	0.13 kg	0.21 kg	0.73 kg	0.15 kg		

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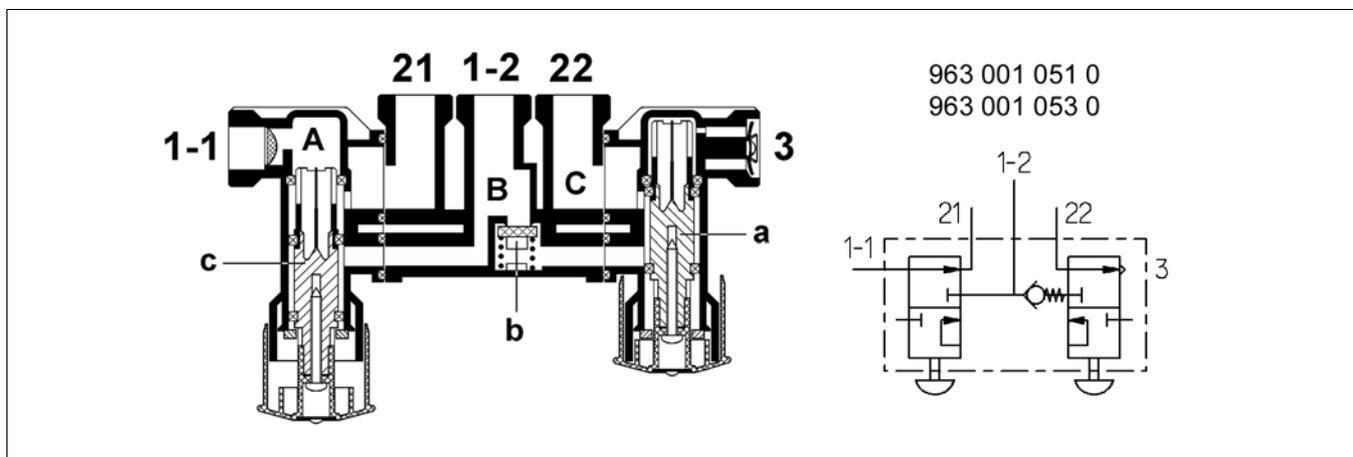
! The trailer release valve 963 006 003 0 has a red actuation button, in connection 1-1 a venting valve and is suitable for Tristop® cylinders like the double release valve 963 001 051 0.

The trailer release valve 963 006 005 0 is identical to the 963 006 003 0 but with a green actuation button for lift axles.

### Plates with parking and driving symbols



### Functionality of 963 001 05.



While coupling the trailer onto the vehicle, make sure that the piston (a) is still in parking position; if yes, push it to the driving position.

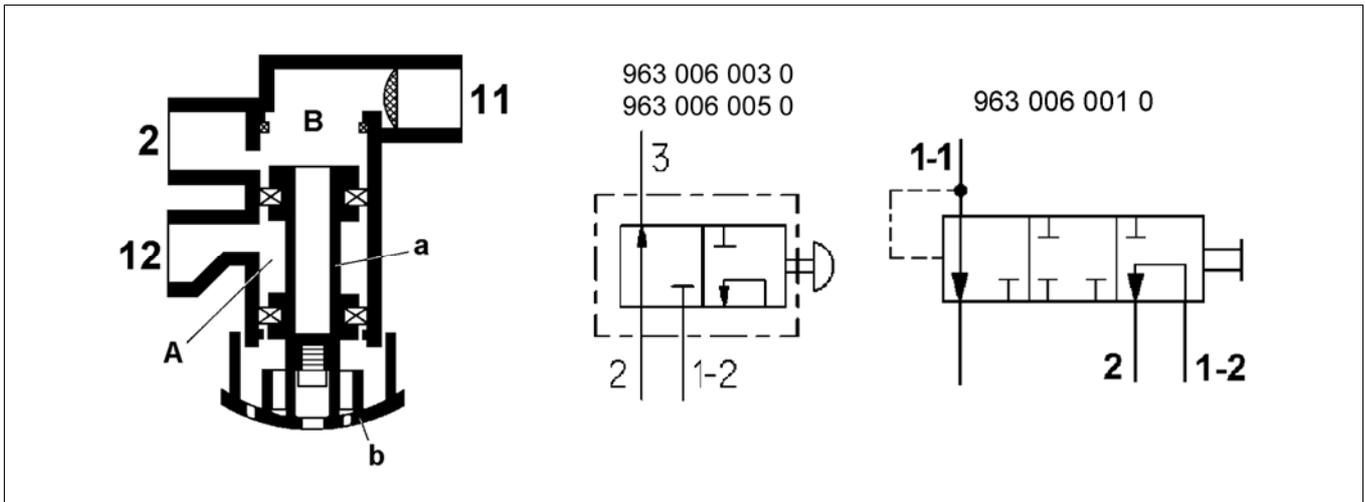
When the coupling head is connected, compressed air flows through port 1-1 into chamber A. If the piston (c) is still in release position, it is pushed out into driving position by the supply pressure. The air supply then passes through port 21 into the relay emergency valve and then into the trailer's air reservoir. Compressed air flows through port 1-2 into chamber B, opens the check valve (b), passes through chamber C and port 22 into the downstream two-way quick release valve and pressurises the Tristop® cylinder's spring compression chambers.

Pressure in Port 1-1 and, subsequently, chamber A is reduced in the unhitched position. To release the service braking system, use the actuating knob to push the piston (c) until stop. This blocks the passage from port 1-1 to port 21, and a connection is created between chamber A and port 1-2. The air supply of the semitrailer supply reservoir at port 1-2 flows through port 21 into the trailer emergency valve

and switches it to driving position, thereby reducing the pressure in the brake cylinder.

The piston (a) is pulled out when the parking brake is activated. The compressed air in chamber C and at port 22 is released into the atmosphere via exhaust 3. The downstream quick release valve reverses and pressure is reduced in the Tristop® cylinder's spring compression chambers.

## Functionality of 963 006



The air supply flows through port 11 into chamber B. If the piston (a) is still in release position, it is pushed out into driving position by the supply pressure. The air supply then passes through port 2 into the trailer emergency valve and then into the semitrailer's air reservoir.

Pressure in port 11 and, subsequently, chamber B is reduced in the unhitched position. To release the braking system, use the actuating knob (b) to push the piston (a) in to the stop. This blocks the passage from port 11 to port 2 and a connection is created between chamber A and port 2.

The air supply for the semitrailer at port 12 flows through port 2 into the trailer emergency valve and switches it to driving position, thereby reducing the pressure in the brake cylinder.



Functionality of the trailer release valve 963 001 012 0 and 963 001 013 0 (flanged directly onto the trailer emergency brake valve) see 963 006.