

Pressure reducing valve 473 301

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Application

Multiple applications, e.g. reducing brake pressures on a trailing steering axle.

Purpose

Reducing the input pressure in a certain ratio, and quick venting of the downstream brake unit.

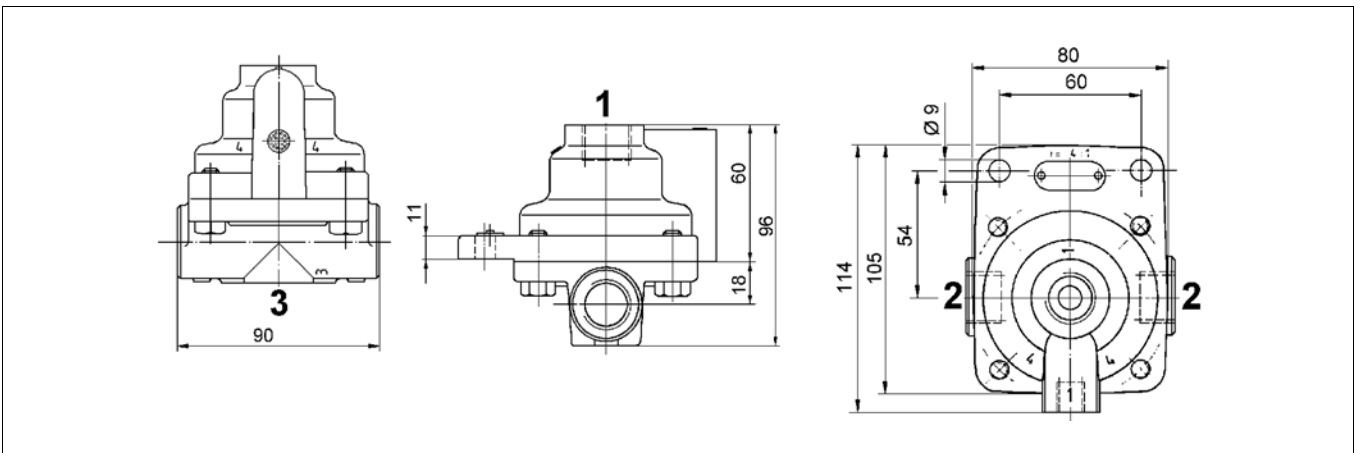
Maintenance

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

Installation recommendation

- Install the pressure reducing valve vertically so that the drain 3 points downward.
- Fasten the pressure reduction valve with two M8 bolts.

Installation dimensions



Connections

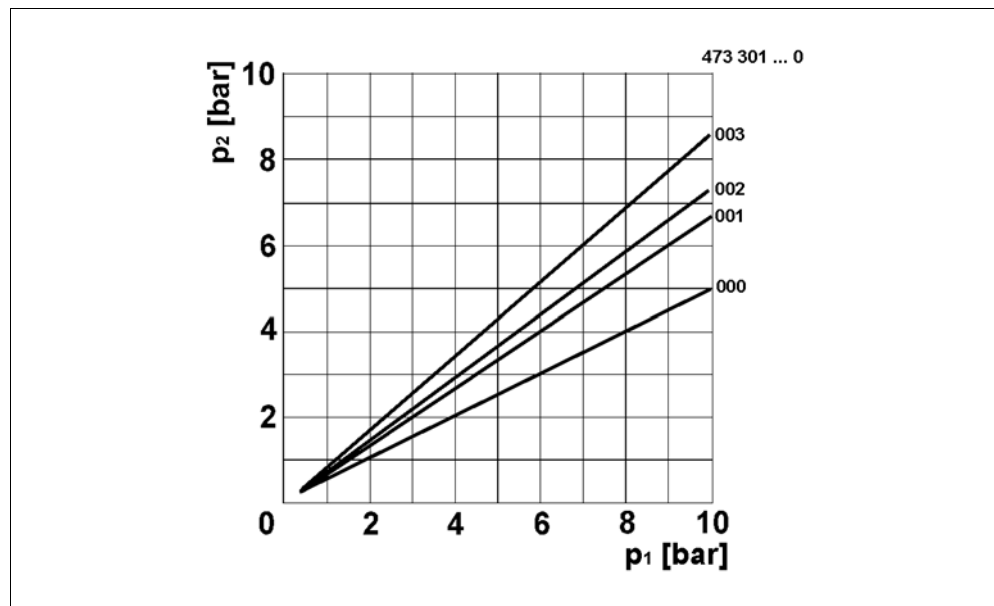
1	Energy supply	2	Energy delivery	3	Exhaust
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Technical data

Order number	473 301 000 0	473 301 001 0	473 301 002 0	473 301 003 0
Pressure reduction ratio	2:1	1.5:1	1.35:1	1.15:1
Port threads	M 22x1.5 - 15 deep			
Max. operating pressure	10 bar			
Permissible medium	Air			
Operating temperature range	-40 °C to +80 °C			
Weight	0.9 kg			

Diagram

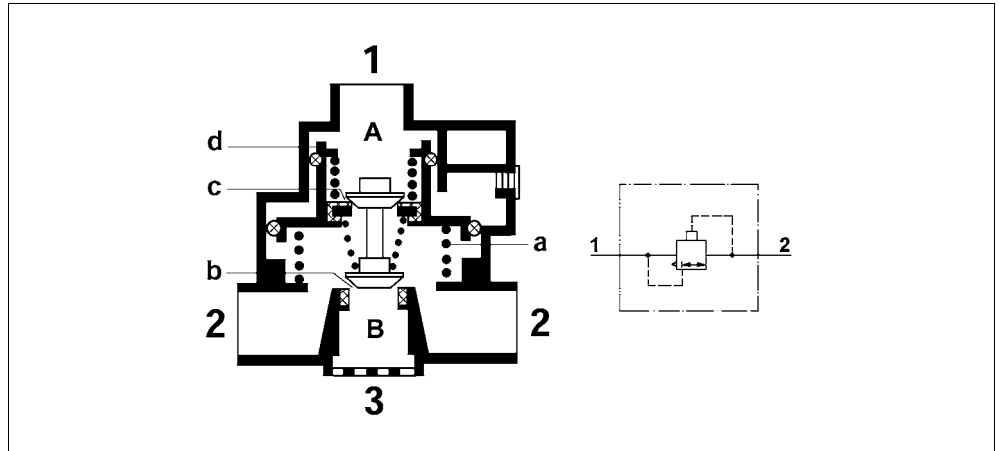


Legend

p₁ Output pressure **p₂** Input pressure

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Operation



Compressed air is forced into chamber A through connection 1 and moves the graduated piston (d) downward against the force of the compression spring (a). The outlet valve (b) is closed and the Inlet valve (c) opens. The compressed air now flows through port 2 to the downstream brake devices.

At the same time, pressure builds up in chamber B, acting on the underside of piston (d). As soon as the force is equal on the underside and the smaller top side of the graduated piston (d), the piston is raised and the inlet valve (c) is closed. The ratio of the pressures then corresponds with the ratio of the two surfaces of the graduated piston.

If the pressure drops on connection 1, the high pressure in chamber B now moves the graduated piston (d) upward. Outlet valve (b) opens and depending on the control pressure, either a partial or a complete venting occurs on the downstream brake device through the vent 3. The compression spring (a) always keeps the graduated piston at the top end position, even in an unpressurised state.