

PRESSURE REGULATING VALVE

Dear Customer,

Thank you for your confidence in our product.

In the following pages you will find the technical data required for the trouble-free installation and maintenance of these pneumatic components. Please read the instructions fully to ensure that the product will give you long, trouble-free service.

Warning: Servicing and repair work must only be carried out by a qualified technician.

1. TECHNICAL DATA

Characteristics			Pressures quoted as gauge pressure		
Port size			G1/8	G1/4	G3/8
Medium and ambient temperature range	ϑ_{\min} ϑ_{\max}	$^{\circ}\text{C}$ $^{\circ}\text{C}$	0 (other temperatures on request) +60		
Weight (mass)		kg	0,3		
Pneumatic Characteristics					
Operating pressure range Inlet	$p_{1\min}$ $p_{1\max}$	bar	0 16		
Operating pressure range Outlet	$p_{2\min}$ $p_{2\max}$	bar	0,5 8	on request 4	0,5 15
Minimum pressure range	$p_1 - p_2$	bar	0,2		
Hysteresis $p_1=10/p_2=0$		bar	0,5		
Hysteresis $p_1=10/p_2=8$			0,4		
Recommended flow rate ①	Q_n	l/min m ³ /h	300 18	550 33	850 51
Maximum flow rate ②	Q_{\max}	l/min m ³ /h	790 47	1050 63	3300 198

① at $p_2=6$ bar and 25 m/s

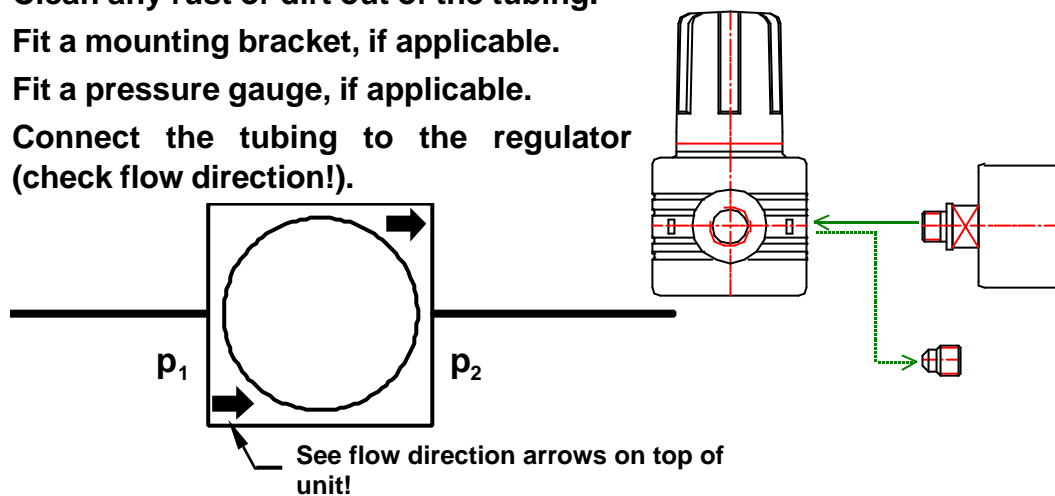
② at $p_1=10$ bar on $p_2=6,3$ bar, $\Delta p=1$ bar

2. INSTALLATION INSTRUCTIONS

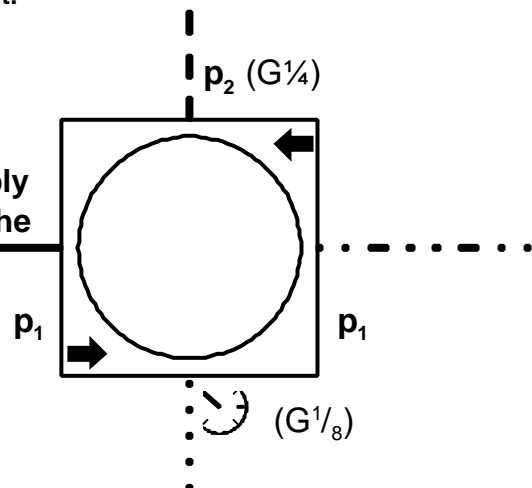
Warning: The unit must only be used in industrial applications for compressed air.
To avoid danger of injuries, the compressed air system must be fully depressurized while pneumatic components are being installed.

Note: Dirt must be kept out of the regulator as it can cause serious malfunction or damage!
If required, a filter should be installed in the line before the regulator.

1. Clean any rust or dirt out of the tubing.
2. Fit a mounting bracket, if applicable.
3. Fit a pressure gauge, if applicable.
4. Connect the tubing to the regulator (check flow direction!).

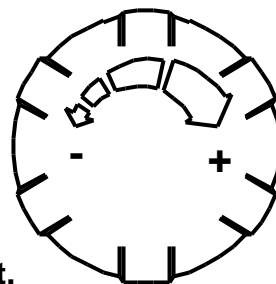


5. Pull the handwheel upwards and turn it anticlockwise (see arrow on handwheel) to set p_2 to 0 bar.
Option „-T“ (p_1 goes through):
The connection for the regulated pressure line is on the side of the unit.
6. Turn on the compressed air supply and turn the handwheel until the desired pressure is obtained. Push the handwheel down again to lock it.



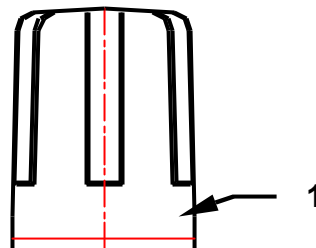
3. PRESSURE SETTING

1. To set the desired pressure, pull the handwheel upwards and turn it anticlockwise until the pressure is below the new desired pressure.
2. Turn the handwheel clockwise to obtain the desired pressure, then push it down again to lock it.



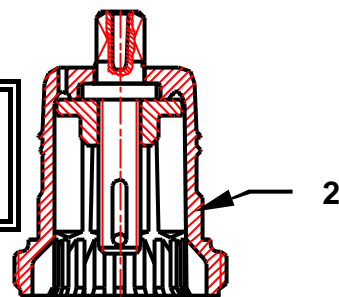
4. MAINTENANCE

The regulator itself is maintenance-free. The compressed air system as a whole must be correctly maintained (air filtered and dewatered).



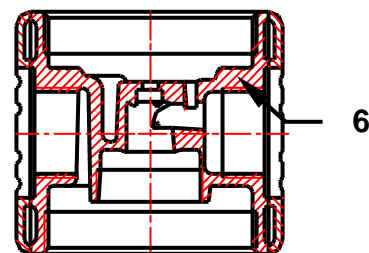
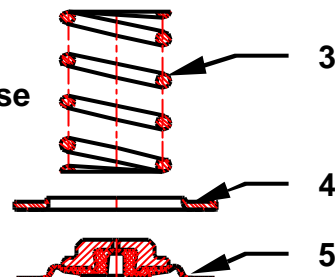
5. DISMANTLING

Warning: To avoid danger of injuries, the unit must only be dismantled with the pneumatic system completely depressurized!



5.1. Dismantling the Upper Part

1. Pull the handwheel ① upwards, turn it anticlockwise to the stop and push it down again to lock it.
2. Screw off the upper part ②.
3. Remove the regulating spring ③.
4. Remove the white spacer disc ④ and the diaphragm assembly ⑤ from the housing ⑥.



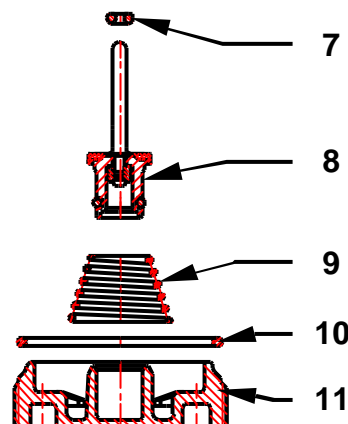
5.2. Dismantling the Lower Part

1. Preferably remove the regulator from the air line.
2. Screw off the bottom cover ⑪ with a pin spanner.

Caution: The compression spring ⑨ falls out of the housing with the bottom cover.



3. Pull the valve piston ⑧ out of the housing ⑥.
4. Take the O-ring $\varnothing 2,5 \times 1,5$ ⑦ out of the housing.
5. Take the O-ring $\varnothing 35 \times 2$ ⑩ out of the housing.




6. REASSEMBLY

Reassembly of the unit is carried out in reverse order to dismantling: Lower part first, upper part last.

Note: If new seals are fitted, grease them thoroughly before fitting.

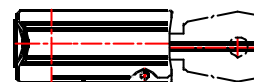


Note on Reassembly of the Upper Part:

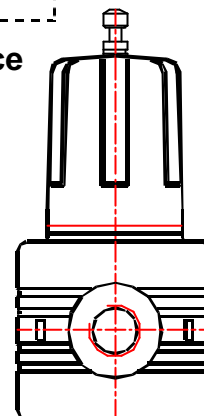
1. Screw the upper part ① ② 1 to 2 turns into the housing.
2. Unlock the handwheel ①, hold the upper part with one hand and turn the handwheel 3 - 4 turns to the right:  this centres the diaphragm ⑤ to the valve piston ⑧.
3. Turn the handwheel ① back to the left and lock it.
4. Screw the upper part in tight up to its stop.

7. FITTING THE LOCK

Note: The lock can only be used on regulators fitted with the projecting locking bolt.



1. Position the key obliquely to the hole and place the lock on the peg.
2. Turn the key clockwise and remove it.



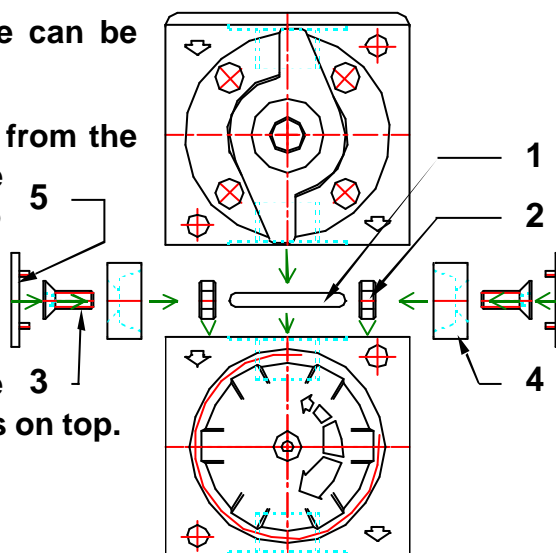
8. DISPOSAL

The method of disposal of packaging and discarded parts must comply with local regulations.

9. ASSEMBLY OF SEVERAL COMPONENTS

Only components of the same size can be assembled into combined units.

1. Remove the black cover plates from the inlets and outlets of the components you wish to assemble. The coloured cover plates remain in place.
2. Turn the component so that the flange surface which is to be joined to the other component is on top.



3. Lay the O-ring ① from the coupling kit on the flange surface.
4. Place the hexagon nuts ② in the recesses on the component.
5. Place the other component on the flange surface.
6. Place the clamping cones ④ with the screws ③ in the recesses on the components.
7. Tighten the clamping screws.
8. Push the small cover plates ⑤ from the coupling kit on to the clamping cones.

10. FITTING THE MOUNTING BRACKET

1. Remove the coloured cover plate from the component.
2. Screw the mounting bracket to the component with the screws provided using a Phillips screwdriver.

Note: The mounting bracket can be fitted with the mounting strap either upwards or downwards.

