


# PRESSURE REGULATOR

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


<i>Characteristics</i>			Pressures quoted as gauge pressure	
Port size			G3/8	G1/2
Medium and ambient temperature range	$\vartheta_{min}$ $\vartheta_{max}$	°C °C	0 (other temperatures on request) +60	
Weight (Mass)		kg	0,55	
<i>Pneumatic Characteristics</i>				
Operating pressure range Inlet	$p_{1min}$ $p_{1max}$	bar	0 16	
Operating pressure range Outlet	$p_{2min}$ $p_{2max}^*)$	bar	0,5 8	on request 0,5 0,5 4 10
Minimum pressure difference	$p_1-p_2$	bar	0,2	
Hysteresis $p_1=10/p_2=0$		bar	0,9	
Hysteresis $p_1=10/p_2=8$		bar	0,7	
Recommended flow rate ①	$Q_n$	l/min m <sup>3</sup> /h	<b>850</b> <b>51</b>	<b>1900</b> <b>114</b>
Maximum flow rate ②	$Q_{max}$	l/min m <sup>3</sup> /h	4200 252	5700 342


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

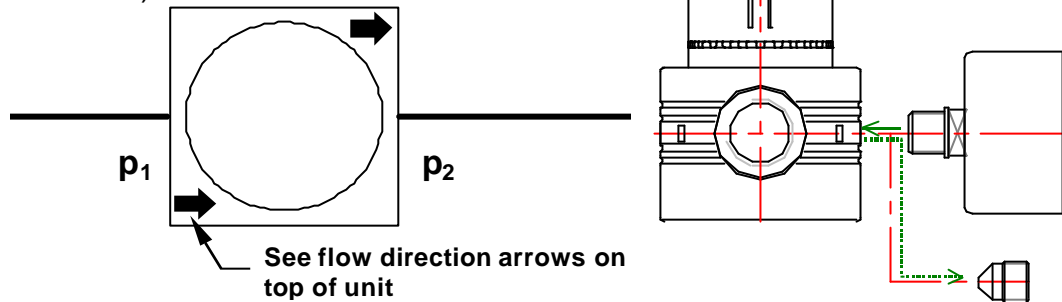
\*) according to type

## 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:** Keep dirt out of the regulator  $\Rightarrow$  dirt can damage the unit.  
 If required a filter is to be installed in line before pressure regulator.

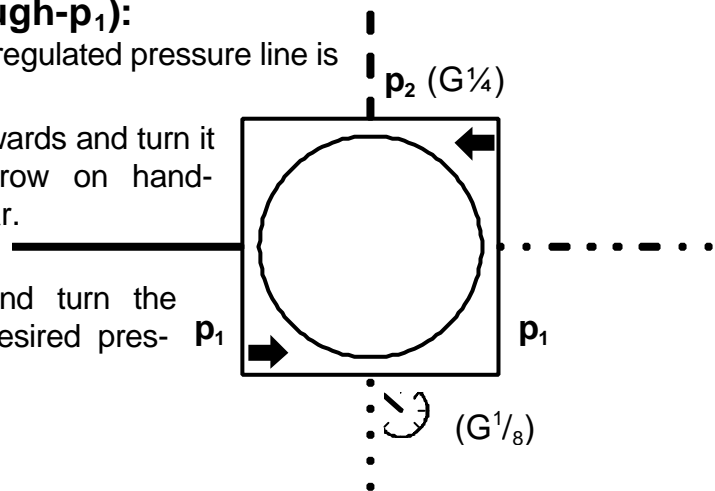
1. Clean any rust particles or other dirt out of the tubing.
2. Fit a mounting bracket, if applicable.
3. Fit a pressure gauge, if applicable.
4. Connect the tubing to the regulator (check flow direction!).



### Option „-T“ (through- $p_1$ ):

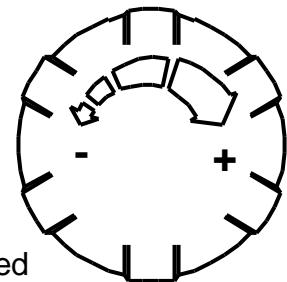
The connection for the regulated pressure line is on the side of the unit.

5. Pull the handwheel upwards and turn it anticlockwise (see arrow on handwheel), to set  $p_2$  to 0 bar.
6. Turn on the compressed air supply and turn the handwheel until the desired pressure is obtained. Lock the handwheel.



## 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. However it is important that the whole compressed air system is correctly maintained (air filtered and dewatered).

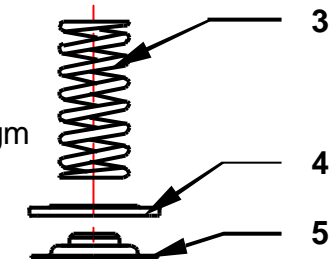
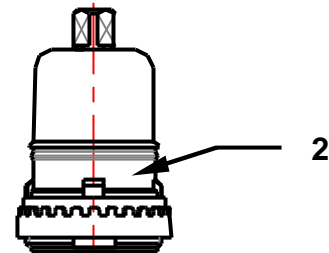
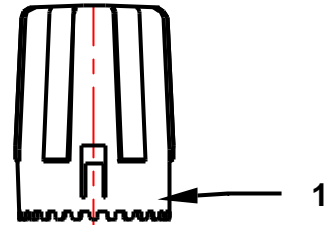
## 5. DISMANTLING

**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 and turn it anti-clockwise to the stop. Then pull the handwheel up and off (bending the retaining claws away carefully).
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.

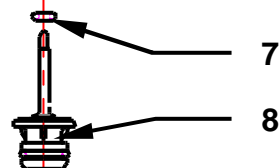
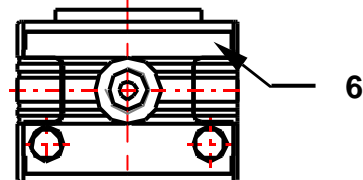


### 5.2. Dismantling the Lower Part

1. Preferably remove the regulator from the air line.
2. Screw off the bottom cover ⑩ with a pin spanner.

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

3. Pull the valve piston ⑧ out of the housing ⑥.
4. Remove the O-Ring  $\varnothing 3 \times 2$  ⑦ from the housing.
5. Remove the O-Ring  $\varnothing 48 \times 2$  ⑩ from the housing.



## 6. REASSEMBLY

Reassembly of the unit is carried out in the reverse order—first the lower part, then the upper part.

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

### Reassembling the Upper Part:

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

## 7. FITTING THE LOCK

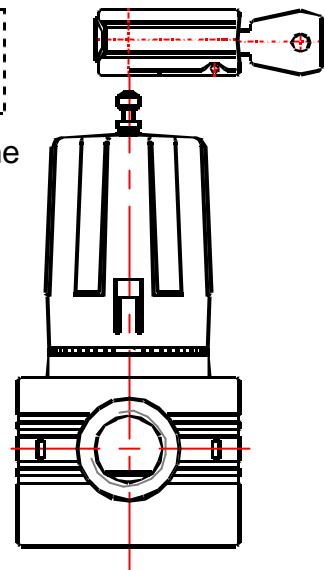
Note: The lock can only be used on regulators fitted with the projecting locking post to take it.



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

## 8. DISPOSAL

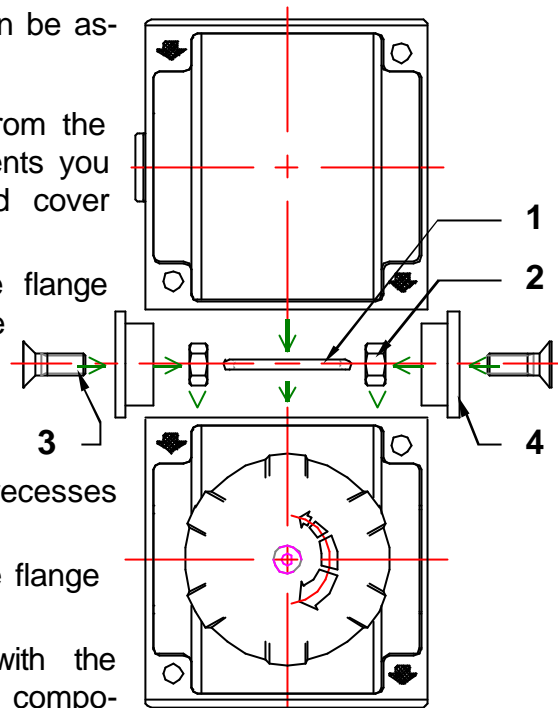
The method of disposal of packaging and discarded parts must comply with local regulations.



## 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.



## 10. FITTING THE MOUNTING BRACKET

1. Remove the prestamped parts which cover the through-holes on both sides of the unit.
2. Fit the mounting bracket and secure it with the screws provided. Tighten them with a screwdriver.

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

