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 and observe 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 are gauge pressures	
Port size			G1/8	G1/4
Installation		µm	in any position	
Medium and ambient temperature range	ϑ_{min} ϑ_{max}	°C °C	0 +50 ① (other temperatures on request)	
Weight (mass)		kg	0,11	
Pneumatic Characteristics				
Operating pressure range Inlet	p_{1min} p_{1max}	bar	0 10	
Operating pressure range Outlet	p_{2min} p_{2max}	bar	0,5 10 on request: 0,5 3 0,5 ④ 4	
Min. pressure difference	p_1-p_2	bar	0,2	
Hysteresis p_1=10/p_2=0 p_1=10/p_2=10			1,6 0,6	
Recommended flow rate ②	Q_n	l/min m³/h	**300** **18**	**550** **33**
Maximum flow rate ③	Q_{max}	l/min m³/h	530 32	770 46

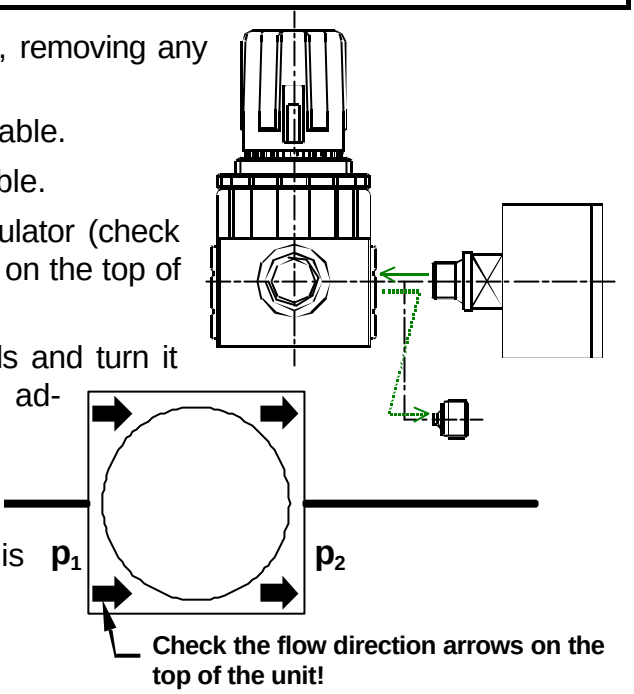
① at 10 bar ② at p_2=6,3 bar and 25 m/s ③ at p_1=10 bar to p_2=6,3 bar, ⁎p=1bar
④ the exact p_2 range can be selected by the use of special springs

2. INSTALLATION INSTRUCTIONS

Warning: The unit must be used only 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.

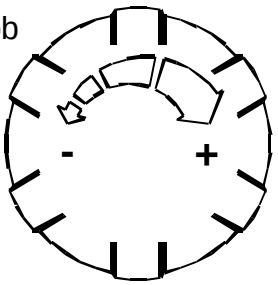
Note: Keep dirt out of the regulator ⇨ dirt can damage the unit.

1. Clean out the air line carefully, removing any loose rust or other deposits.
2. Fit a mounting bracket, if applicable.
3. Fit a pressure gauge, if applicable.
4. Connect the air line to the regulator (check flow direction – see the arrows on the top of the unit!).
5. Pull the adjusting knob upwards and turn it anticlockwise (see arrow on adjusting knob).
6. Turn on the compressed air supply and turn the adjusting knob until the desired pressure is obtained.
   Lock the adjusting knob.



3. PRESSURE SETTING

1. To set the desired pressure, pull the adjusting knob upwards and turn it anticlockwise until the pressure is below the desired pressure.
2. Turn the adjusting knob in the opposite direction, carefully increasing the pressure from the lower pressure up to the desired pressure.



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 de-pressurized!

5.1. Dismantling the Upper Part

1. Pull the adjusting knob ① upwards and turn it anticlockwise to the stop.
2. Unscrew the upper part ③.
3. Remove the regulating spring ⑤ and adjusting screw ④.
4. Remove the piston ⑥ from the housing ⑧.
5. Remove the gasket ⑦ from the housing ⑧.

5.2. Dismantling the Lower Part

1. Preferably remove the regulator from the air line.
2. Unscrew the bottom cover ⑫ with a pin wrench.

Warning: When the bottom cover is removed the spring ⑩ and valve piston ⑨ fall out of the housing.

3. Remove the O-ring ∅31 × 2 ⑪ from the housing.

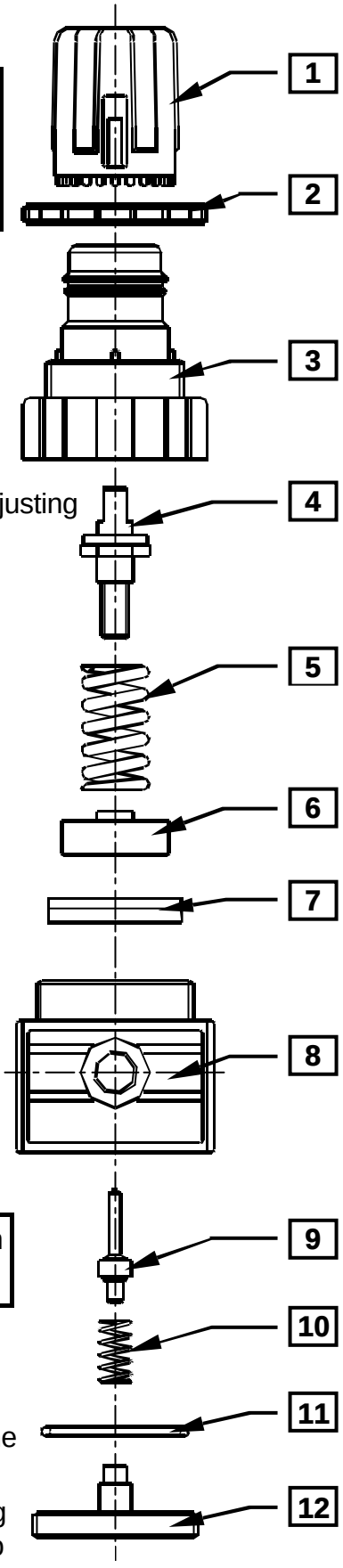
6. REASSEMBLY

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 Lower Part:

1. Place the O-ring ∅31 × 2 ⑪ in the housing.
2. Push the valve piston ⑨ with the spring ⑩ into the housing.
3. Screw the bottom cover ⑫ back into the housing (the guide spigot on the bottom cover must go into the spring) and tighten it with a pin wrench.

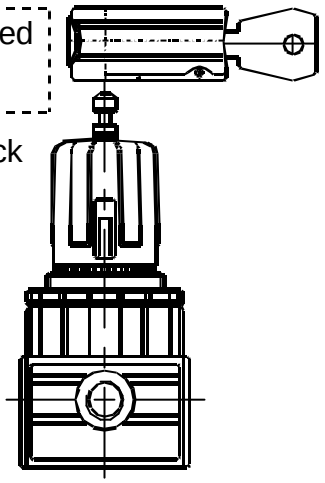


Reassembling the Upper Part:

1. Place the gasket ⑦ in the bore with the sealing lip towards the bottom of the housing (be careful not to damage the sealing lip).
2. Centre the valve piston ⑨ (already in place).
3. Push the piston ⑥ into the housing ⑧. Make sure that the valve piston ⑨ is centred in the bore of the piston ⑥.
4. Push the adjusting screw ④ into the upper part ③.
5. Place the spring ⑤ on the centring seat of the piston ⑥.
6. Screw the upper part ③ onto the housing ⑧ (holding the adjusting screw firmly) and tighten it.

7. FITTING THE LOCK

Note: The lock can only be fitted to regulators ordered with option -X.



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.

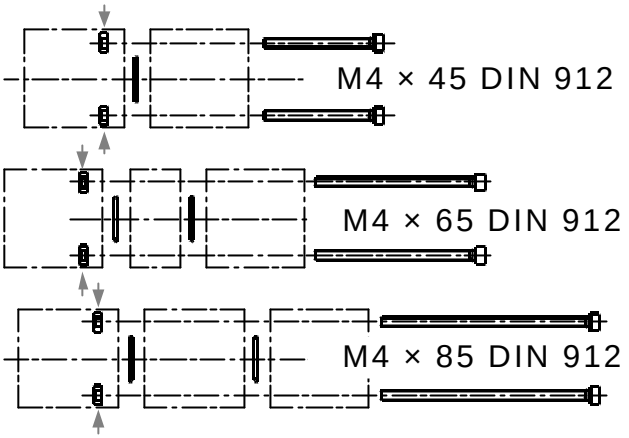
9. ASSEMBLY OF SEVERAL COMPONENTS

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

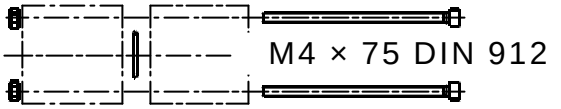
9.1. Assembly of Pressure Regulators or Filter-Regulators with Other Components

1. Remove the black cover plates from the inlets and outlets of the components you wish to assemble.
   The coloured cover plates remain on the component (filter, lubricator), through which the assembly screws will go.
2. Remove the coloured cover plates from the component (regulator, filter-regulator)in whose recesses the nuts will be placed.
3. Turn the component so that the flange surface which is to be joined to the other component is on top.

4. Lay the O-ring from the coupling kit on the flange surface.
5. Place the hexagonal nuts in the recesses of the component.
6. Place the other component on the flange surface.
7. Push the screws into the through-holes of the other component.
8. Tighten the screws.
9. Fit the black cover plates over the inlets and outlets of the components.
10. Fit the coloured cover plates.

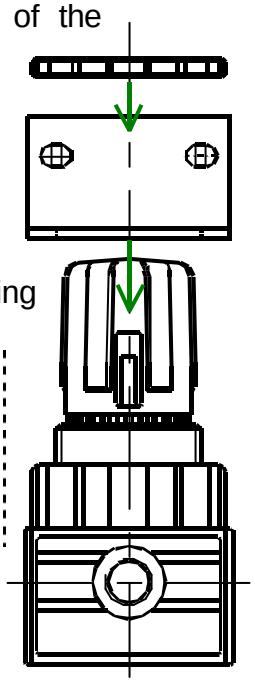


9.2. Assembly of Oil Mist Lubricators with Filters or Filters with Other Types of Filter



1. Remove the black cover plates from the inlets and outlets of the components you wish to assemble. The coloured cover plates remain on the components.
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 from the coupling kit on the flange surface.
4. Place the hexagonal nuts in the recesses of the component.
5. Place the other component on the flange surface.
6. Push the screws into the through-holes of the other component.
7. Tighten the screws.
8. Fit the black cover plates over the inlets and outlets of the components.

10. FITTING THE MOUNTING BRACKET



1. Secure the mounting bracket, insert the regulator into it from below and secure it from above using the mounting ring supplied.

Note: The mounting bracket can be fitted with the mounting strap either upwards or downwards. If the mounting strap is downwards, the mounting bracket must be secured to the wall before the regulator is mounted in it.