

FILTER 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.

W  **Servicing and repair work must only be carried out by a qualified technician.**

1. TECHNICAL DATA - For Standard Unit

<i>Characteristics</i>			Pressures quoted as gauge pressure		
Port size			G1/8	G1/4	G3/8
Pore size of filter element		μm	30 (white) 5 (yellow)		
Max. condensate capacity		cm^3	22		
Condensate drainage			Standard: manual On request: semiautomatic (with pressure relief)		
Installation			Vertical		
Medium and ambient temperature range	ϑ_{min} ϑ_{max}	$^{\circ}\text{C}$ $^{\circ}\text{C}$	0 +50 at 10 bar	(other temperatures on request)	
Weight (mass)		kg	0,35		
<i>Pneumatic Characteristics</i>					
Operating pressure range inlet	p1min p1max	bar	0 16		
Operating pressure range outlet	p2min p2max	bar	0,5 8	(0,5 0,5 4 15)	
Minimum pressure difference	p1-p2	bar	0,2		
Hysteresis p1=10/p2=0		bar	0,5		
Hysteresis p1=10/p2=8		bar	0,4		
Recommended flow rate ①	Qn	l/min m^3/h	300 18	550 33	850 51
Maximum flow rate ②	Qmax	l/min m^3/h	790 47	2280 137	3200 192
Filtration efficiency at recommended flow rate	η	%	95	95	90

①) at p2=6 bar and 25 m/s

②) p1=10 bar on p2=6,3 bar; $\Delta p=1$ bar

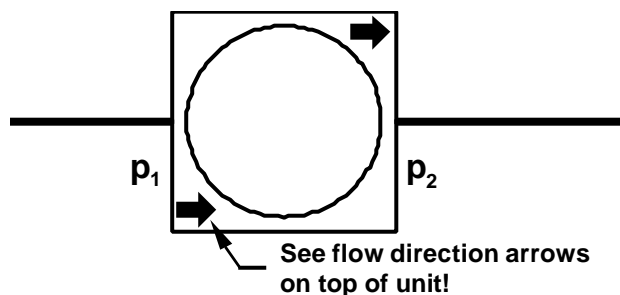
2. INSTALLATION INSTRUCTIONS

Warning: The unit must only be used in industrial applications for compressed air.

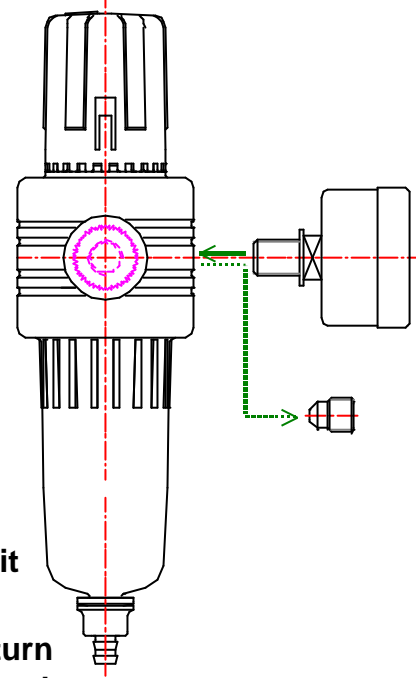
To avoid danger of injuries, the compressed air system must be fully depressurized while pneumatic components are being installed.

Note: The bowl must not come into contact with the following materials (whether in liquid or gaseous form): acetone, benzene, brake fluid, chloroform, acetic acid, glycerine, methanol, carbon bisulphide, tri-, tetra- and per-compounds, toluene, xylene (cellulose thinners) and high flash-point synthetic oils (e.g. phosphoric ester base, etc.). If in doubt, please consult your sales contact.

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 filter regulator (check flow direction!).

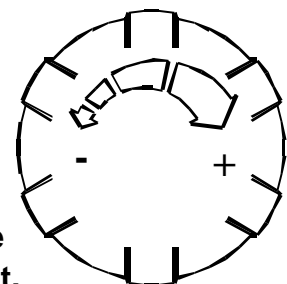


5. Pull the handwheel upwards and turn it anticlockwise (see arrow on handwheel).
6. Turn on the compressed air supply and turn the handwheel until the desired pressure is obtained.
Push the handwheel down again to lock it.



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.



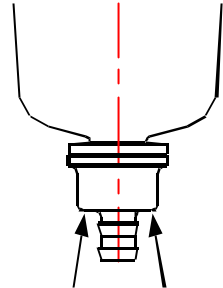
4. MAINTENANCE

The regulator itself is maintenance-free.

4.1. Manual Drainage

Push the plastic part up against the bowl to open the valve and drain the condensate.

The condensate level must never be above the „maximum“ mark on the bowl.



4.2. Cleaning the Filter Element

As soon as serious pressure drop is observed, clean the filter element and bowl.

Clean the filter element with petrol, paraffin or similar and blow it out from inside to outside.

The element must be completely dry before reassembly.

The bowl and the other plastic parts should only be cleaned with warm water and normal washing-up liquid.

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 anticlockwise 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 ⑥.

5.2. Dismantling the Lower Part

1. Screw off the bowl ⑭.
2. Unlock the deflector disc ⑫ by turning it to the left and pull it off the spigot.
3. Pull the conical filter element ⑪ from its seat.
4. Loosen the cover ⑩ with pointed pliers and screw it off.

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

5. Pull the valve piston ⑧ out of the housing ⑥.
6. Take the O-ring $\varnothing 2,5 \times 1,5$ ⑦ out of the housing.
7. Take the O-ring $\varnothing 35 \times 2$ ⑬ out of the housing.

6. REASSEMBLY

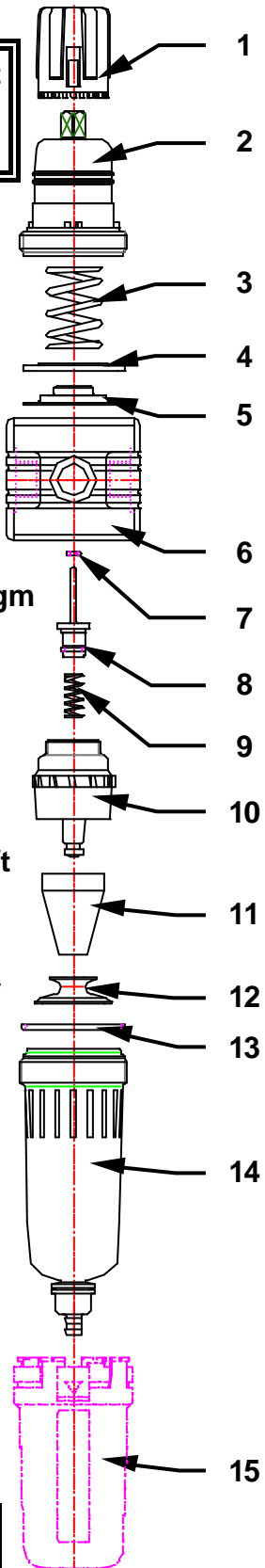
Reassembly of the unit is carried out in reverse order to dismantling: Lower part first, upper part last.

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



Note on Reassembly of the Lower Part:

Filter element:5µm yellow
30µm.. white



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: **P** this centres the diaphragm ⑤ to the valve piston ⑧.
3. Turn the handwheel ① back to the stop again.
4. Screw the upper part in tight up to its stop.

7. FITTING AND REMOVING THE BOWL GUARD

Fitting:

Locate the lugs of the guard ⑤ in the recess of the housing ⑥ and lock it by turning it to the right.

Removal:

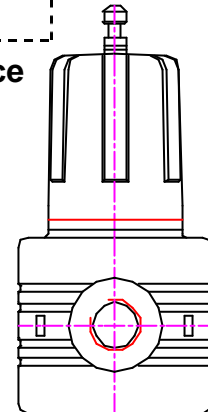
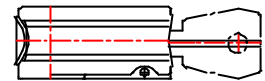
Press the release catch (see arrow) and turn the guard to the left.

8. 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.



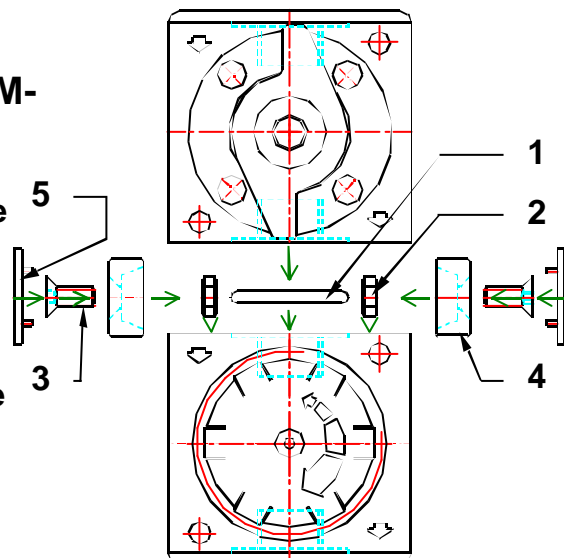
9. DISPOSAL

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

10. 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.

11. 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.

