

# 1/2" Filter/Regulator Installation & Maintenance Instructions

## TECHNICAL DATA

Fluid: Compressed air

Maximum pressure:

Metal bowl: 17 bar (250 psig)

Operating temperature\*:

Metal bowl: -34° to +80°C (-30° to +175°F)

\* Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Main port size: 1/2"

Main port thread form: PTF, or ISO G

Gauge ports:

1/4 PTF with PTF main ports

ISO Rc1/8 with ISO G main ports

Drain: Automatic

Bowl: Metal with liquid level indicator

Outlet pressure adjustment ranges:\*\*

0,3 to 10 bar (5 to 150 psig)

\*\* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Particle removal: 5 µm filter element

Air quality: Within ISO 8573-1, Class 3 (particulates)

Typical flow with 10 bar (150 psig) inlet pressure, 6,3 bar (90 psig) set pressure and 1 bar (15 psig) droop from set: 50 dm<sup>3</sup>/s (106 scfm)

Nominal bowl size: 0,1 litre (3,5 fluid ounce)

Automatic drain connection: 1/8"

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: Greater than 0,3 bar (5 psig)

Bowl pressure required to open drain: Less than 0,2 bar (3 psig)

Minimum air flow required to close drain: 0,1 dm<sup>3</sup>/s (0,2 scfm)

Materials:

Body: Aluminum

Bonnet: Aluminum

Valve: Brass

Bowl:

Metal: Aluminum

Metal bowl liquid level indicator lens: Transparent nylon

Element: Sintered polypropylene

Elastomers: Neoprene and nitrile

## REPLACEMENT ITEMS

Service Kit (includes items circled on exploded view):

Relieving.....8940169077

Liquid level lens kit (43, 45, 46, 47).....8940169080

Filter element, 5µm, red speckles (50).....8940169083

Automatic drain (40, 41, 42).....8940169136

## PANEL MOUNTING DIMENSIONS

Panel mounting hole diameter: 48 mm (1.89")

Panel thickness: 2 to 6 mm (0.06" to 0.24")

## INSTALLATION

- Shut off air pressure. Install filter/regulator in air line -
  - vertically (bowl down),
  - with air flow in direction of arrow on body,
  - upstream of lubricators and cycling valves,
  - as close as possible to the device being serviced.
- Connect piping to proper ports using pipe thread sealant on male threads only. Do not allow sealant to enter interior of unit.
- Push bowl, or bowl with guard, into body and turn fully clockwise before pressurizing.
- Flexible tube with 5mm (3/16") minimum I.D. can be connected to the automatic drain. Drain may fail to operate if the tube I.D. is less than 5mm (3/16"). Avoid restrictions in the tube.
- Install a pressure gauge or plug the gauge ports. Gauge ports can also be used as additional outlets for regulated air.

## ADJUSTMENT

- Before applying inlet pressure to filter/regulator, turn adjustment (1) counterclockwise to remove all force on regulating spring (12).
- Apply inlet pressure, then turn adjustment (1) clockwise to increase and counterclockwise to decrease pressure setting.
- Always approach the desired pressure from a lower pressure. When reducing from a higher to a lower

setting, first reduce to some pressure less than that desired, then bring up to the desired pressure.

- KNOB ADJUSTMENT.** Push knob down to lock pressure setting. Pull knob up to release.

## SERVICING

- Clean or replace filter element when dirty.

## DISASSEMBLY

- Filter/regulator can be disassembled without removal from air line.
- Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero.
- Turn adjustment (1) fully counterclockwise.
- Remove bowl - push into body and turn counterclockwise.
- Disassemble in general accordance with the item numbers on exploded view. Do not remove the drains unless replacement is necessary. Remove and replace drains only if they malfunction.

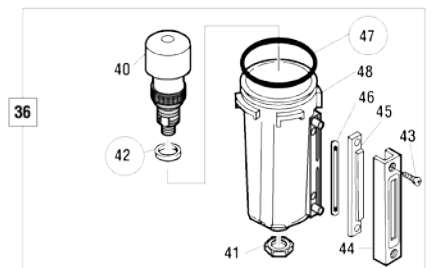
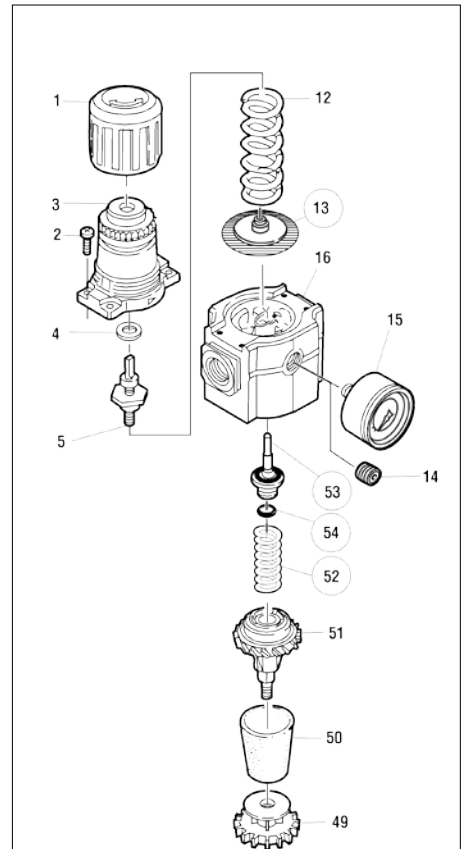
## CLEANING

- Clean plastic bowl (25, 35) with warm water only. Clean other parts with warm water and soap.
- Rinse and dry parts. Blow out internal passages in body (16) with clean, dry compressed air. Blow air through filter element (50) from inside to outside to remove surface contaminants.
- Inspect parts. Replace those found to be damaged.

## ASSEMBLY

- Lubricate the following items with o-ring grease.
  - 4 (Thrust washer) - outer circumference and both sides.
  - 5 (Adjusting screw) - threads and tip.
  - 47, 54 (O-rings)
- Assemble the unit as shown on the exploded view. Push bowl, or bowl with guard, into body and turn fully clockwise.
- Torque Table
 

Item	Torque in Nm (Inch-Pounds)
2, 9 (Screw)	2,3 to 3,4 (20 to 30)
41 (Nut)	2,3 to 2,8 (20 to 25)
43 (Screw)	1,7 to 3,4 (15 to 30)
49 (Baffle), 51 (Louver)	1,1 to 2,2 (10 to 20)



## CAUTION

Water vapor will pass through these units and could condense into liquid form downstream as air temperature drops. Install an air dryer if water condensation could have a detrimental effect on the application.

## WARNING

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **Technical Data**.

If outlet pressure in excess of the filter/regulator pressure setting could cause downstream equipment to rupture or malfunction, install a pressure relief device downstream of the filter/regulator. The relief pressure and flow capacity of the relief device must satisfy system requirements.

The accuracy of the indication of pressure gauges can change, both during shipment (despite care in packaging) and during the service life. If a pressure gauge is to be used with these products and if inaccurate indications may be hazardous to personnel or property, the gauge should be calibrated before initial installation and at regular intervals during use.

These products are not designed for use with fluids other than air, for nonindustrial applications, or for life-support systems.