

# Installation and Maintenance Manual

## TYPE 5412 Filter regulator



### Description

The purpose of Filter Regulator is to purify the air and remove corrosive moisture and abrasive solids from the airstream as well as being able to regulate and reduce main line pressure for various pneumatic control equipment eg. air tools, cylinders and systems. When choosing and selecting a particular filter-regulator attention should always be focused on the correct regulations and safe working practices. By selecting the correct equipment improved service life will result in a reduction in downtime of pneumatic systems.

### Installation

It is important to note that these service units must be mounted vertically. To ensure the most efficient operating system it is recommended that units are mounted as near as possible to the pneumatic control element or system. It is essential that the correct direction of flow is followed as indicated by the direction of the arrows shown on the individual units.

### Filter

Compressed air contains moisture and abrasive solids which if left unheeded would have an adverse effect on pneumatic control equipment which the resultant loss of performance and eventually function. It is important to avoid any excessive pressure drop across the unit that the filter element is cleaned at regular service intervals. Also by visual inspection when excess condensate builds up in the filter bowl relieve by either switching off removing and cleaning the bowl or ensuring that the automatic drain is functioning correctly. Various filter elements can be fitted depending on the particular application or environment, the standard grade of filtration is to 5 µm absolutely.

### Pressure-Regulator

Pressure regulation is a means by which primary pressure (PE) is regulated using a control spring and diaphragm to hold steady the secondary pressure (PA) to a required level to operate downstream equipment and tooling. Maintenance: Spare part service kits are available. It is advisable to check regularly wear parts and valve cones for signs of damage or wear when checking any unit make sure that this is carried out under fully safe conditions. To set the pressure: Pull the adjusting knob, or release the lock nut (Regulator unlocked) then by tuning the knob adjust the pressure regulator to the desired pressure, finally press the adjusting knob, or set the lock nut (Regulator locked) down to fix the unit set at the desired pressure.

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## General

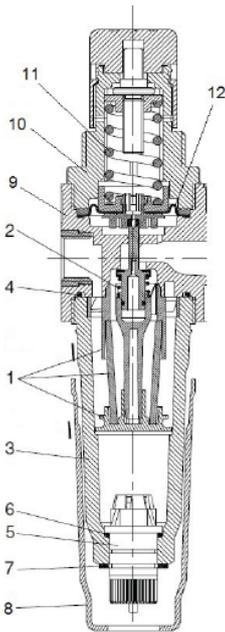
Polycarbonate bowls should be cleaned only with water, soapsuds and similar neutral agents. Cleaning agents which CKWs, aromatics or ketones contain or softeners secrete should not be used under any circumstances!!!

Max. working pressure for the filter and lubricator units with polycarbonate bowl: **12 bar**

Max. media and ambient temperature for filter, pressure-regulator: **50°C**

**Always turn off the mains air supply when removing, servicing or dismantling any unit.**

## Materials



POS.	DESCRIPTION	MATERIAL
1	FILTER ELEMENT	POLYETHYLENE
2	RESET SPRING	STEEL
3	BOWL	POLYCARBONATE
4	O-RING	NBR
5	SEMI-AUTOMATIC DRAIN	POM
6	DRAIN O-RING	NBR
7	RETAINING RING	STEEL
8	PROTECTOR	POLYCARBONATE
9	BODY	PA 6.6 (FIBERGLASS)
10	SPRING CAGE	PA 6.6 (FIBERGLASS)
11	SPRING	STEEL
12	DIAPHRAGM	NBR + POLYESTER

## Flow / Pressure

