



# ***Instruction Manual***

## **SF02**

***Fine filter for liquids and gases***



PKP Prozessmesstechnik GmbH  
Borsigstraße 24  
D-65205 Wiesbaden-Nordenstadt  
Tel.: ++49-(0)6122-7055-0  
Fax: ++49-(0)6122-7055-50  
Email: [info@pkp.de](mailto:info@pkp.de)

# ***Safety Information***

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## ***General Instructions***

To ensure safe operation, the device should only be operated according to the specifications in the instruction manual. The requisite Health & Safety regulations for a given application must also be observed. This statement also applies to the use of accessories.

Every person who is commissioned with the initiation or operation of this device must have read and understood the operating instructions and in particular the safety instructions!

The liability of the manufacturer expires in the event of damage due to improper use, non-observance of this operating manual, use of insufficiently qualified personnel and unauthorized modification of the device.

## ***Proper Usage***

The plastic filter housing SF02 with filter insert is used for filtering different media. The product has a diverse array of possible application fields but is not suitable for all imaginable purposes including:

- use at temperatures under 5°C or above 52°C
- use with liquid or gaseous substances which attack the used materials
- under ultraviolet radiation
- at pressures above 10 bar

Make sure that the type of plastic filter housing with its filter element and its components corresponds to the intended use.

The plastic filter housing is not sterile upon delivery.

The plastic filter housing is not suitable as a front door filter per DVGW (Deutsche Vereinigung des Gas- und Wasserfaches e.V. = German Technical and Scientific Association for Gas and Water)!

## ***Dangerous substances***

For dangerous media such as e.g. Oxygen, Acetylene, flammable or toxic substances as well as refrigeration systems, compressors, etc. must comply with the relevant regulations beyond the general rules.

## ***Qualified Personnel***

The SF02 devices may only be installed by trained, qualified personnel who are able to mount the devices correctly. Qualified personnel are persons, who are familiar with assembling, installation, placing in service and operating these devices and who are suitably trained and qualified.

## ***Inward Monitoring***

Please check directly after delivery the device for any transport damages and deficiencies. Additional with reference to the accompanying delivery note the number of parts must be checked. Claims for replacement or goods which relate to transport damage can only be considered valid if the delivery company is notified without delay.

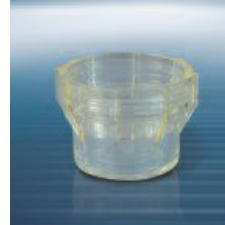
## *Description of the Components*

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1. Filter head: several connection sizes, see order code



2. Filter bowl short: polypropylene white  
copolyester DN011 clear  
polyamid clear



3. Filter bowl long: polypropylene white  
copolyester DN011 clear  
polyamid clear



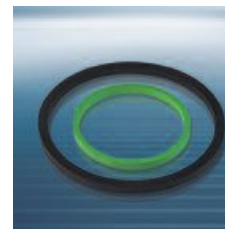
4. Filter bowl big: polypropylene white  
copolyester DN011 clear  
polyamid clear



5. Supporting body: polypropylene  
stainless steel



6. Gasket: NBR  
EPDM  
FKM



## **Assembly Recommendation:**

Use stop valves before and after the plastic filter housing as additional protection from damage. In case stop valves are used open them slowly to prevent damage from possible pressure impulse.

Only connections suited for a plastic thread should be used with the plastic filter housing.

- The plastic filter housing should only be assembled / disassembled by qualified personnel.
- Assembly: Tighten the connection elements at the thread access and exit of the filter head to avoid possible damage to the plastic.
- Plastic sealing tape is recommended.
- Ensure that all connections are aligned correctly and firmly tighten the filter bowl.
- Disassembly: Ensure that the circuit is empty and not charged pressure when unscrewing the filter bowl.
- Pay attention to appropriate regulations / precautionary measures for handling the respective media!

## *Handling*

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**Attention:** Prior to the electrical connection of the device, it must be ensured that the supply voltage matches that required and the supply voltage is switched off.

### **Differential Pressure Load:**

The filter element resists to a maximum differential pressure load of 0.7 bar. The filter insert may be damaged and filter efficiency impacted by higher differential pressure.

We recommend the surveillance of differential pressure by means of a suitable measuring device and if necessary the use of a pressure reducer. (The measurement of the differential pressure is only possible while media is flowing in the opened borrow area.)

### **Temperature Influences:**

The plastic filter may only operate at media temperatures between 5°C and 52°C.

### **UV-light:**

The plastic filter housing should NOT be exposed to direct sunlight!

## ***Changing the Filter Insert***

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- Gaskets should be exchanged with each filter insert change.
- Dependent on the accumulated dirt, the plastic filter insert should be exchanged no later than after six months of service.
- Pay attention that the circuit concerned is not pressurized and consider the corresponding regulations and precaution with regards to the used medium.
- Soiling of the filter insert may be visible on a plastic filter housing with clear nylon filter bowl.
- The criteria to measure soiling of the plastic filter insert is differential pressure. The plastic filter insert must be exchanged at a differential pressure of 0.6 bar.

## ***Cleaning***

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Filter housings can only be cleaned with lukewarm water and a commercial liquid detergent if necessary.

Never use a dishwasher for cleaning the plastic filter housing!

## ***Fastening of the Filter Head***

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Only cylindrical sheet metal screws form BZ with pivot Ø 2.9 mm with slot should be used to fasten the plastic filter housing. As per DIN 7971.1, the screw-in depth should not exceed 5 mm.

PKP Prozessmesstechnik does not take responsibility for damage (such as leakage of the housing or bursting/cracking when pressurized) that may occur from other screws that are larger screw-in depths or diameters.

# SF02

## Fine Filters for Liquids and Gases

- For pipe sizes G 1/8 to G 3/4
- Filter elements: 5...300 µm
- Filter cup made of PP or transparent Copolyester DN011 or Polyamide
- Filter element easy to clean



### Description:

Model SF02 fine filters consist of the filter head made of polypropylene, the filter cup made of PP or transparent nylon and different filter elements made of sintered plastic or stainless steel. The filter cup can be easily unscrewed to remove the filter element for cleaning.

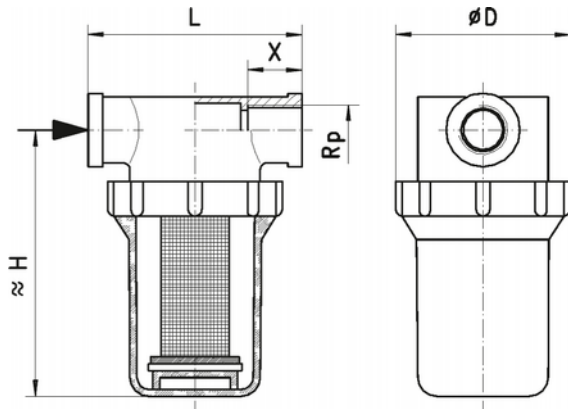
### Typical applications:

For cleaning liquids and gases where devices installed in the piping system must be protected from foreign objects and debris.

## Models:

<b>SF02.K:</b>	short filter for lightly dirty mediums
<b>SF02.L:</b>	long filter for dirty mediums
<b>SF02.G:</b>	large filter for very dirty mediums

## Dimensions:



Model	Female thread (G)	H [mm]	L [mm]	D [mm]	X [mm]	Weight [g]
SF02.K.1	1/8"	50	77	48,5	19	50
SF02.L.1		84	77	48,5	19	75
SF02.K.2	1/4"	50	77	48,5	19	50
SF02.L.2		84	77	48,5	19	75
SF02.K.3	3/8"	54	77	48,5	19	65
SF02.L.3		88	77	48,5	19	95
SF02.G.3		114	91	75	20	175
SF02.K.4	1/2"	54	77	48,5	19	60
SF02.L.4		88	77	48,5	19	80
SF02.G.4		114	91	75	20	170
SF02.G.5	3/4"	119	91	75	20	190

## Order Code:

Order number: **SF02.** **L.** **1.** **P.** **3.** **N.** **0**

Fine Filters for liquids and gases

### Model:

K = short filter, d = 18 mm  
L = long filter, d = 18 mm  
G = large filter, d = 28 mm

### Process connection:

1 = G 1/8" female (not for model G)  
2 = G 1/4" female (not for model G)  
3 = G 3/8" female  
4 = G 1/2" female  
5 = G 3/4" female (only for model G)

### Material filter cup:

P = Polypropylene  
C = Copolyester DN011, transparent  
N = Polyamide, transparent (only for model L)

### Filter element:

1 = 5 µm, polyethylene  
2 = 35 µm, polyethylene  
3 = 80 µm, polyethylene  
4 = 50 µm, stainless steel  
5 = 100 µm, stainless steel  
6 = 300 µm, stainless steel

### Gasket:

N = NBR  
E = EPDM  
V = FKM

### Options:

0 = without

## Technical Data:

**Max. medium temperature:**

5...52 °C

**System pressure:**

10 bar at 24 °C

### Materials:

housing:	Polypropylene
filter cup:	Polypropylene Copolyester DN011, transparent Polyamide, transparent
filter element:	Polyethylene Stainless steel
gasket:	NBR / EPDM / FKM