



PROFACTOR®
DER DEUTSCHE QUALITÄTSSTANDARD

EN

TECHNICAL DATA SHEET AND USER MANUAL



PRODUCT CODE

PF FS 238
PF FS 238.20
PF FS 238G
PF FS 238.20G
PF FS 239
PF FS 239.20
PF FS 239G
PF FS 239.20G

SELF-CLEANING FILTER

1. PURPOSE AND SCOPE

The filter is intended for cleaning water from mechanical impurities. It protects the pipelines, valves and equipment installed on it against water-insoluble admixtures: sand, cuttings, hemp, rust, etc.

The filter is installed upstream the water meters, control valves, flow meters, «wet» motor rotor pumps and other devices with the raised requirements to the purity of water passing through them.

The filter is not intended for the protection from the water-soluble substances, solvents, grease, oils, and other lubricating materials.

2. TECHNICAL SPECIFICATIONS

Rated size, DN: 15 – 20

Connection thread, G: 1/2" – 3/4"

Rated pressure PN: 16 bar

Mesh size (filtration degree): 100 µm

Working fluid (water) temperature:

PF FS 238: 5°C – 40°C

PF FS 239: 5°C – 80°C

Environmental temperature: 5°C – 50°C

Average service life: 20 years

3. DESIGN

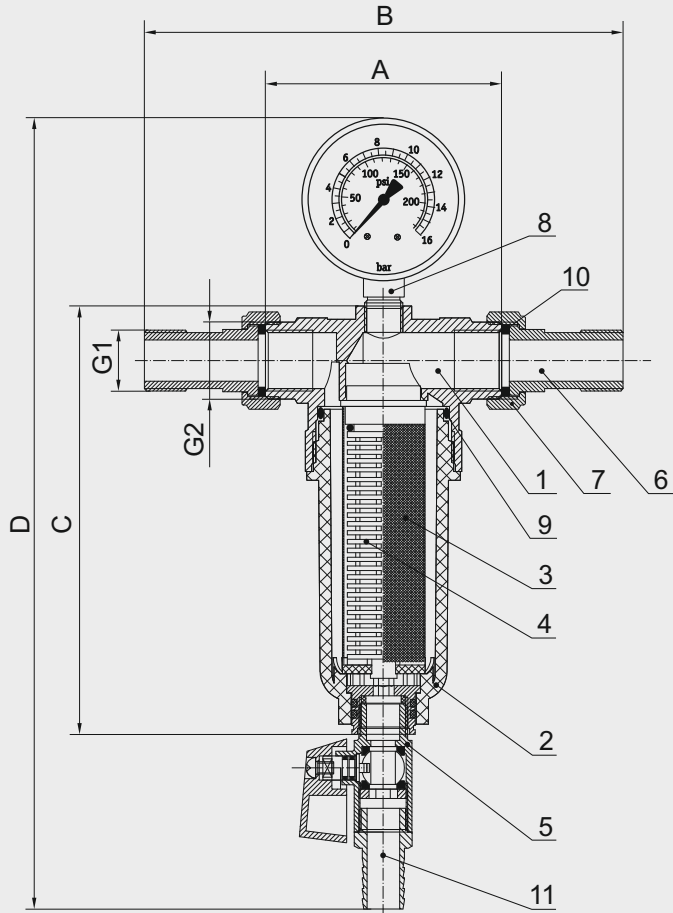
All the tube cylindrical threads are in an accordance with DIN EN ISO 228-1, and all the metric threads — with DIN ISO 261.

The pressure gauge is supplied with filters: PF FS 238G, PF FS 238.20G, PF FS 239G, PF FS 239.20G.

PF FS 238, PF FS 238.20, PF FS 239, PF FS 239.20 filters are supplied without the pressure gauge and provided with a plug! The filters for hot water have a brass bowl and the filters for cold water have a bowl of transparent polycarbonate as well as a plastic wrench for unscrewing it.

All the filters are completed with a mini ball tap and a drain adapter for connecting a rubber hose.





- | | |
|-------------------------------|-------------------------------|
| 1 – Casing | 7 – Connection branch cap nut |
| 2 – Bowl | 8 – Pressure gauge |
| 3 – Filtering element | 9 – Bowl gasket |
| 4 – Filtering element support | 10 – Connection branch gasket |
| 5 – Ball valve | 11 – Drain adapter |
| 6 – Connection branch | |

4. MATERIALS

Parts (1, 6, 7) — Brass CW617N (DIN EN 12165), with nickel plated of surfaces

Bowl (2) for hot water — Brass CW617N (DIN EN 12165), with nickel plated of surfaces

Bowl (2) for cold water — Polycarbonate (organic glass)

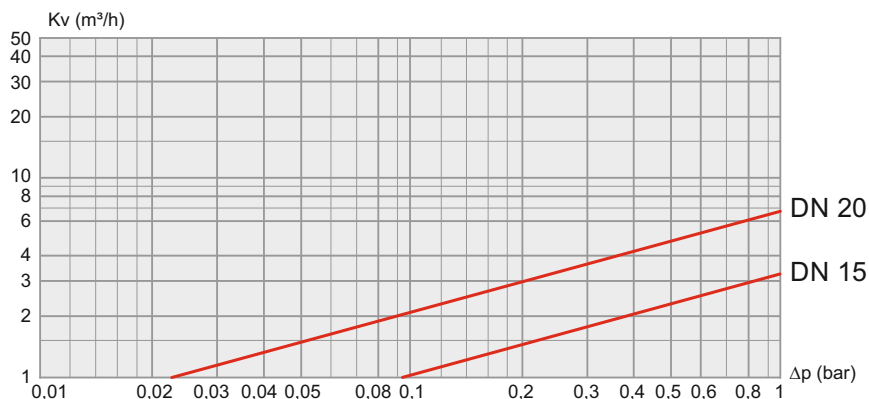
Filtering element (3) — Stainless steel AISI 304 (DIN EN 10088)

Filtering element support (4) — POM

Sealed parts (9, 10) — EPDM

5. HYDRAULIC SPECIFICATIONS

The graph of flow capacity vs pressure drop:



6. NOMENCLATURE AND DIMENSIONS

Product Code	DN	G1	G2	Kv at Δp=0,2 Bar, m³/h	A, mm	B, mm	C, mm	D, mm	Weight, g
PF FS 238	15	1/2"	3/4"	1,5	80	162	145	215	655
PF FS 238G	15	1/2"	3/4"	1,5	80	162	145	265	715
PF FS 238.20	20	3/4"	1"	3,0	92	184	169	237	820
PF FS 238.20G	20	3/4"	1"	3,0	92	184	169	287	880
PF FS 239	15	1/2"	3/4"	1,5	80	162	145	215	930
PF FS 239G	15	1/2"	3/4"	1,5	80	162	145	265	990
PF FS 239.20	20	3/4"	1"	3,0	92	184	169	237	1120
PF FS 239.20G	20	3/4"	1"	3,0	92	184	169	287	1180

7. OPERATION AND MAINTENANCE

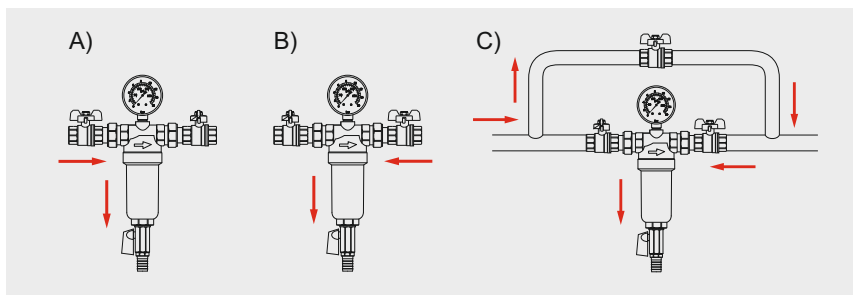
The filter should not be exposed to direct sunlight, UV radiation, heat sources above 65°C, solvent vapors, oils, alkaline washing solutions, any chemical substances.

Avoid contact with oils and grease with the plastic parts of the filter. The noticeable pressure decrease at the filter, which is determined by the pressure gauge readings, may indicate that the filter element needs to be replaced. With water a closed water takeoff tap, the pressure gauge shows an input pressure in the system.

When opening a water takeoff tap with a clean filter, the pressure gauge readings will decrease by Δp value. In the course of the filter operation time, this value will grow. The two-fold increase of Δp is indicative of the fact that the filter is contaminated and must be cleaned. Both filter washing or filtering element cleaning options are acceptable. Washing may be performed in two methods:

- A) – closing the filter outlet tap
 - opening a washing valve and draining the sediments to the sewage. In this case, the filtering element itself is not cleaned, only the sediments deposited on the bowl bottom are removed.
- B) – closing the water takeoff tap
 - closing filter inlet and outlet taps
 - opening the washing valve
 - opening the filter outlet tap. Furthermore, the residual water in the pipeline downstream the filter will partially remove the particles deposited on the filtering element.
- C) Backwashing of the filter (possible only if the bypass is provided):
 - closing the water takeoff tap
 - closing the filter inlet tap
 - opening the filter outlet tap and bypass tap
 - opening the washing valve. This allows cleaning the filtering element.

The filter washing methods:



If the washing provides no desirable result, the filtering element should be cleaned or replaced (if heavily contaminated). Before cleaning or replacement of the filtering element, the system inlet shutoff tap should be closed. Further, washing valve should be opened with draining the pipeline section containing the filter. To clean the filtering element itself, unscrew the bowl, remove the filtering element, clean or replace it.

ATTENTION: to clean the filter element, do not use solvents or detergents, including the acidiferous detergents. Further, insert the filtering element to the casing and screw the bowl on. Close the washing valve, then open the shutoff taps, open the closest water tap and drain the initial flowing out water. Check the filter for leak tightness.

ATTENTION: do not connect the washing valve to the sewage network without the jet break, since blockage or overflow of the sewage network may result in the effluent water getting into the water supply pipeline.

According to the requirements of DIN 1988-, part 8, the leak tightness and filter pollution level should be visually checked once per 2 months with washing the filter. The filter element is recommended to be replaced at least once per 6 months, quick-wearing sealing parts should be replaced once in 3 years.

8. WARRANTY OBLIGATIONS

The warranty period is 24 months from the date of sale to the end consumer. Throughout the entire warranty period, the manufacturer guarantees the proper functioning of the product and its compliance with safety requirements, provided that the consumer follows the rules for storage, transportation, installation, operation, and maintenance of the product. The warranty covers all defects arising through the manufacturer's fault.

The warranty does not cover defects resulting from:

- Violation of storage, transportation, installation, operation, or maintenance conditions;
- Exposure to substances aggressive to the materials of the product;
- Signs of mechanical damage;
- Damage caused by fire, natural disasters, or other force majeure circumstances;
- Damage caused by improper actions of the user;
- Evidence of unauthorized interference with the product design.



The product described in this technical manual is a technically complex device that must be installed by a qualified specialist with appropriate experience working with this type of equipment.

Installation and commissioning must be carried out by an authorized and certified company.

Profactor Armaturen GmbH reserves the right to make changes to the product design that do not affect its technical characteristics or functional features.



INTERNATIONAL WARRANTY CARD

NAME OF THE PRODUCT

PRODUCT CODE, SIZE

QUANTITY

SELLER NAME AND ADDRESS

DATE OF PURCHASE

SELLER STAMP

SELLER SIGNATURE

For the warranty term refer to the Warranty obligation clause in the technical manual

FOLD LINE

FOLD LINE

In case of any claims to the product quality the following documents should be submitted:

1. Application with customer and product details:

- Name of the customer, actual address and phone number
- Article of the product
- Reason for the claim and photo
- Plumbing system where installed (name, address, phone number)

2. Invoice copy and receipt

3. Warranty card

RETURN/EXCHANGE COMMENTS

DATE

SIGNATURE



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