Pipeline Ancillaries

Strainers and Filters FI 6.06

Stainless Steel Filter



Technical Data

Connection DN 15 - 50
Connection G 1/2 - 2
Nominal Pressure PN 16
Temperature 190 °C
Medium gases and steam

Description

Filters are used to retain contaminants present in fluids.

FI 6.06 is entirely manufactured from deep-drawn stainless steel featuring excellent corrosion resistance. For this reason it is used for the filtration of corrosive gases and liquids.

Top and bottom sections of the valve body are connected by a clamp ring and two bolts. Servicing/maintenance is easy and does not call for special tooling.

Two different types of tube filters can be fitted in the filter body. Type P: High quality pleated 3-ply filter element (fabric/metallic fibre fleece/ fabric)

Type S: Filter element made of sintered stainless steel

Low pressure loss and large dirt retention capacity ensure long life and minimise servicing and maintenance.

The filter may be cleaned by blowing through with compressed air or steam or flushing using a suitable cleaning agent. The best results are obtained by ultrasonic cleaning in an aqueous solution.

Standard

- » All stainless steel construction
- » Quick-release body clamp ring
- » Retained particle size: type P 25 μm; type S - 20 μm
- » Drain plug in body bottom section
- » Bleed plug in body top section

Options

- » Retained particle size 5 μm for types P and S
- » Various seal materials suitable for your medium
- » Special connections: Aseptic, ANSI or DIN flanges, welding spigots; other connections on request
- » Special versions on request

Operating instructions, know how and safety instructions must be observed. All the pressure has always been indicated as overpressure. We reserve the right to alter technical specifications without notice.



| Resistance Coefficient 5 | | | | | | | |
|--------------------------|----------------|------------------|-------------|--|--|--|--|
| filter element type | filter mesh µm | nominal diameter | | | | | |
| | | G 1/2 - 1 1/4 | G 1 1/2 + 2 | | | | |
| | | DN 15 - 32 | DN 40 + 50 | | | | |
| Р | 25 | 15 | 13 | | | | |
| | 5 (Sonder) | 17 | 16 | | | | |
| S | 20 | 16 | 15 | | | | |
| | 5 (Sonder) | 28 | 25 | | | | |

| Permitted Pressure Drop [bar] | | | | | | | |
|-------------------------------|---------|-----------------------|-------------|--|--|--|--|
| filter element type | | nominal diameter | | | | | |
| | | G 1/2 - 1 1/4 | G 1 1/2 + 2 | | | | |
| | | DN 15 - 32 DN 40 + 50 | | | | | |
| Р | 5/25 μm | 16 | 5 | | | | |
| S 5 μm | | 12 | 11 | | | | |
| | 20 µm | 8 | 7 | | | | |

Calculating the pressure drop

 $\Delta p = \zeta \cdot \omega^2/2 \cdot \rho \cdot 10^{-5}$ [bar] ζ resistance coefficient (see table)

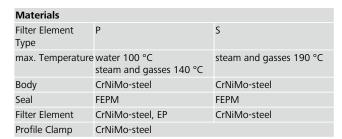
 ω [m/s] flow velocity within the connection cross section (nominal diameter)

ρ [kg/m³] density of fluid

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| Dimensions [mm] | | | | | | |
|------------------|--------------------|-------|-------|-------|-------|-------|
| size | nominal diameter G | | | | | |
| | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 |
| A ₁ * | 160 | 158 | 156 | 204 | 192 | 220 |
| В | 235 | 235 | 235 | 235 | 350 | 350 |
| C | 275 | 275 | 275 | 275 | 420 | 420 |
| D | 140 | 140 | 140 | 140 | 200 | 200 |
| E | G 1/4 | G 1/4 | G 1/4 | G 1/4 | G 1/4 | G 1/4 |

^{*} Overall length tolerances in acc. with DIN EN 558

| Weights [kg] | | | | | | | |
|--------------|---------|-----|-------|-------|---|--|--|
| nominal diar | meter G | | | | | | |
| 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | | |
| 3.1 | 3.2 | 3.3 | 3.7 | 6.8 | 7 | | |

| Dimensions [mm] | | | | | | |
|------------------|--------------------------|-------|-------|-------|-------|-------|
| size | size nominal diameter DN | | | | | |
| | 15 | 20 | 25 | 32 | 40 | 50 |
| A ₂ * | 160 | 160 | 160 | 180 | 200 | 230 |
| В | 235 | 235 | 235 | 235 | 350 | 350 |
| C | 275 | 275 | 275 | 275 | 420 | 420 |
| D | 140 | 140 | 140 | 140 | 200 | 200 |
| E | G 1/4 | G 1/4 | G 1/4 | G 1/4 | G 1/4 | G 1/4 |

^{*} Overall length tolerances in acc. with DIN EN 558

| Weights [kg] | | | | | | |
|---------------------|-----|----|----|-----|------|--|
| nominal diameter DN | | | | | | |
| 15 | 20 | 25 | 32 | 40 | 50 | |
| 4.2 | 4.7 | 5 | 6 | 7.4 | 10.3 | |

Customs Tariff Number 84818099

Special designs on request.

The pressure has always been indicated as overpressure. Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.



Dimensional Drawing

