



FPF+ 3SS

Front panel mounting fine filter series FP®

Version FPF+

Special Features

- Corrosion resistant
- Large filter elements
- Big variety of filter element materials with different porosities possible
- Compact liquid alarm sensor as option
- Low stagnant space
- Simple construction
- Simple assembly
- Easy change of filter element
- Universal usability

Application

The M&C front panel mounting extra-fine filters reliably separate solids, in particular very fine particles, occurring in analysis techniques in gas filtration, using very fine, deep-acting filter elements. The large filter surface of the cylindrical filter element with 75mm length guarantees reliable extra-fine filtration and a long service life with low pressure drop.

The optional integrable liquid alarm sensor LA3 is used in gas sample conditioning systems for monitoring gas cooling and condensate drain-off devices in order to provide protection for downstream analysis instruments. This simple monitoring device reliably signals the penetration of condensate in the event of cooling or condensate drain-off equipment being defective and thus avoids expensive down times as well as high repair costs for analysis instruments.

In the event of alarm, the power for the sample gas pump or a solenoid valve is to be switched off in the gas sample conditioning system.

Corresponding tube connectors can be optionally supplied (see data sheet 11.6).

The optional integrable liquid sensor LA3 works on the principle of electrical conductivity from 50 $\mu\text{S}/\text{cm}$ conductance. In order to avoid electrolytic effects on the sensor surface, the sensors are powered with alternating current.

The liquid sensor is located in the sample gas inlet that any droplets of liquid in the sample gas are attracted under gravity to the sensor surface and even the smallest liquid droplets trigger a sure and rapid alarm.

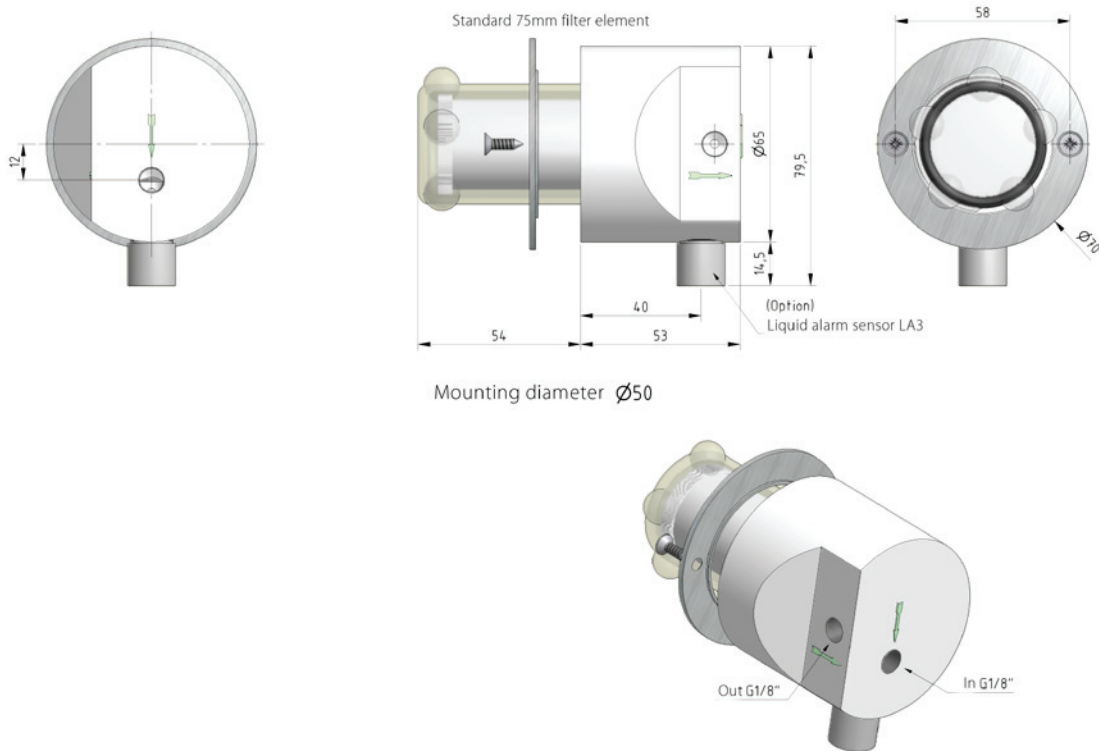
The required electronic controller LA-1.. is available in various versions and is described in the separate data sheet 8.2.

Description

Special features of the M&C FPF+ front panel mounting filter are large filter surface, big variety of different filter element materials and porosities, integrable liquid alarm sensor, low stagnant space, simple construction and assembly as well as universal usability.

The condition of the filter can be seen immediately from outside through the filter glass without opening the filter fitting. No tools are needed for changing the filter element; here, the optimum positioning of the sealing O-ring always guarantees reliable sealing between filter glass and filter body.

The gas connections are located at the back in the filter body. If no liquid sensor is used, the inlet of the measuring gas can be turned by 90° steps at the front ring attachment so that a flexible adjustment to local conditions is possible when assembling.



Mounting diameter $\varnothing 50$

Dimensions in mm

Technical Data

| Front panel-mounting filter series FP* | version PPF+ |
|--|---|
| Part No. | 04 F 2100 |
| Filter element | without, see options |
| Liquid alarm sensor | without, see options |
| Sample gas connections | G1/8" i* DIN ISO 228/1 |
| Pressure | max. 4 bar g |
| Sample temperature | max. 80 °C |
| Ambient temperature | max. 80 °C |
| Filter surface | 70 cm ² |
| Dead volume | 50 ml |
| Weight | 330 g (without filterelement, with liquid alarm sensor LA3) |
| Type of mounting | Front panel mounting |
| Material of sample contacting parts | PTFE, glass, FPM |

* Appropriate fittings see data sheet 11.6

Options

| Part No. | Description |
|----------------|---|
| 03E1300 | Liquid alarm sensor type LA3**, for conductive media. For mounting in PPF+, material: 1.4571, PTFE, FPM |
| 90F0002 | Filter element type F-2T. Length: 75mm, material: PTFE, porosity: 2µm |
| 90F0004 | Filter element type F-20T. Length: 75mm, material: PTFE, porosity: 20µm |
| 90F0003 | Filter element type F-50T. Length: 75mm, material: PTFE, porosity: 50µm |
| 90F0005 | Filter element type F-3G. Length: 75mm, material: Glas, porosity: 3µm |
| 90F0011 | Filter element type F-2GF. Length: 75mm, material: glass fibre, porosity: 2µm. VE = 25 pcs. (for mounting 2 x adapter ring part no. 93S0050 is necessary) |
| 90F0016 | Filter element type F-0,1GF. Length: 64mm, material: glass fibre, porosity: 0,1µm. (for mounting 2 x adapter ring part no. 93S0050 is necessary) |
| 90F0550 | Filter element type F-0,05SiC. Length: 75mm, material: ceramic, porosity: 0,05µm. |
| 90F0006 | Filter element type F-2K. Length: 75mm, material: ceramic, porosity: 2µm |
| 90F0007 | Filter element type F-20K. Length: 75mm, material: ceramic, porosity: 20µm |
| 90F0008 | Filter element type F-3SS. Length: 75mm, material: SS316L, porosity: 3µm |
| 90F0010 | Filter element type F-20SS. Length: 75mm, material: SS316L, porosity: 20µm |
| 90F0115 | Spun glass cartridge FW-1 for universal filter, without filling. Material: SS316Ti |
| 90F0117 | Spun glass cartridge FW-2 for universal filter, without filling. Material: PVDF |
| 93S2083 | Spec. spun glass, high temperature resistant for spun glass cartridge FW. Content:1000g |
| 93S0050 | Adapter ring for filter element F-0,1GF and F-2GF. Material: PTFE (1 pc.) |

** Appropriate electronic controller see data sheet 8.2