

Solid Particle Filter

SPF

Application

The solid particle filters series **SPF** are used for continuous extractive gas analytics. They are usually installed upstream the analyzer and serve for fine solid particle separation from the sample gas to protect the analyzer from damage. Typical applications for the filter's series **SPF** are all kinds of emission monitoring and process gas measurements.

Technology

The solid particle filters series **SPF** are designed particularly corrosion resistant and easy to maintain. Filter head and holder can be made of PVDF, PTFE or stainless steel. The filter body is made of glass or stainless steel and the sealing is made of FKM. Filter elements made of PTFE, glass fiber, ceramic or stainless steel can be mounted. Regarding design special attention was also paid to an extra low dead volume for fast response time and a low pressure drop. Due to the G1/4" f-thread the sample gas connections can be determined variably by means of an appropriate screw fitting. With optional GL25-connection the liquid sensor MS can be integrated in the filter.

Functions

With the different filter elements with porosities between 0,1µm and 2µm even finest solid particles will be separated reliably. The filtration happens from the outside to the inside of the filter element and thus uses the larger outer filter surface. The gas flow enables also the reliable separation of possibly arriving liquids in the bottom of the filter body. With integrated liquid sensor at this point unwanted occurring liquid can be detected and signaled directly. Using a filter body made of glass a quick and simple assessment of the condition of the filter element is possible.



- ✓ Reliable protection of the analyser against solid particles
- ✓ Safe separation of solid particles up to 0,1µm
- ✓ Different durable corrosion resistant materials to combine: PVDF, PTFE, stainless steel, Duran-glass, FKM, ceramic, glass fibre
- ✓ Quick and easy change of filter element
- ✓ Easy mounting and integration
- ✓ Low dead volume for fast response time
- ✓ Optical control of filter element condition
- ✓ Wall mounting

Technical Data

SPF		
Materials		Filter head and –holder: PVDF, PTFE, SS316L Filter body: Duran glass, SS316L Filter element: PTFE, ceramic, glass fibre, stainless steel Sealing: FKM, PTFE / Silicone (GL25-connection)
Sample gas / condensate connections		3 x G1/4"i / GL25-12
Ambient and gas temperature	°C	PVDF : -20...+80 / PTFE -20...+100 / 1.4404 : -20...+180°C
Length filter element	mm	75
Active filter surface	cm ²	70
Max. operating pressure at +20°C	bar abs.	5 (glass filter body without GL25) 2 (glass filter body with GL25-connection) 50 and 20 at +180°C (stainless steel body)
Max. volume flow V _n	l/h	500
Dead volume	cm ³	65
Design data		
Dimensions with 75mm filter element	mm	60 x 180 / 60 x 215 (with GL25)
Weight with 75mm filter element	kg	approx. 0,4 (1,5 completely stainless steel)
Mounting		wall mounting with mounting bracket
Options		
Straight connector DN4/6		G1/4"m – DN4/6 PVDF
Liquid sensor		type MS (see separate data sheet also)

Order Numbers

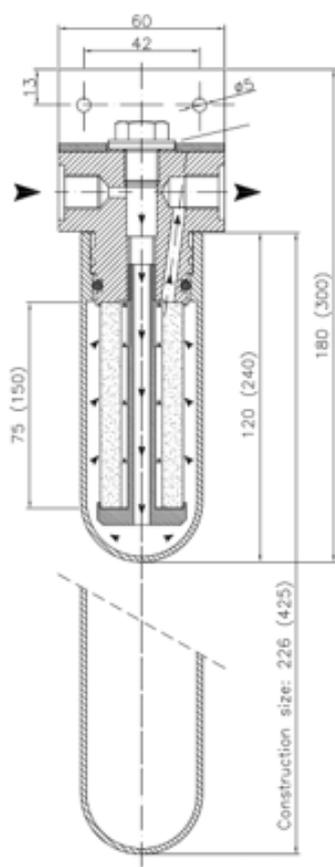
With connection GL25 for condensate outlet or liquid alarm sensor	Part No.
Filter body: Duran glass. Filter element: PTFE 2µm, 75mm. Connections: G1/4" f (gas in, gas out), GL25	30008681
Filter body: Duran glass. Filter element: glass-fiber 0.1µm, 75mm. Connections: G1/4" f (gas in, gas out), GL25	30008682
Filter body: SS316. Filter element: PTFE 2µm, 75mm. Connections: G1/4" f (gas in, gas out), GL25	30008685
Filter body: SS316. Filter element: glass-fiber 0.1µm, 75mm. Connections: G1/4" f (gas in, gas out), GL25	30008686

Order Numbers

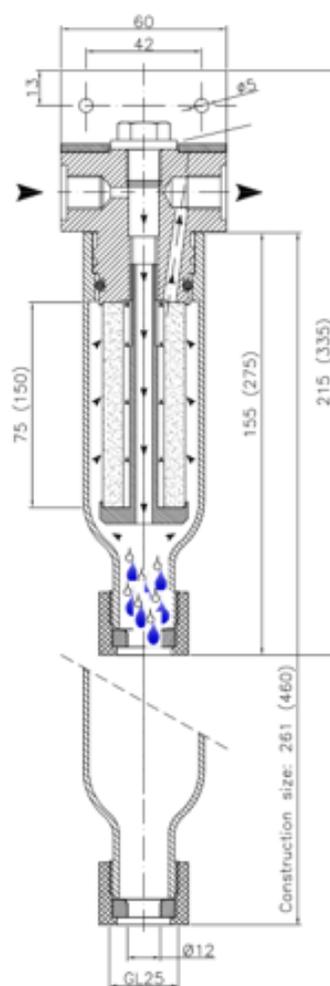
Without connection GL25	Part No.
Filter body: Duran glass. Filter element: PTFE 2µm, 75mm. Connections: G1/4" f (gas inlet, gas outlet),	30008679
Filter body: Duran glass. Filter element: glass-fiber 0.1µm, 75mm. Connections: G1/4" f (gas inlet, gas outlet)	30008680
Filter body: SS316. Filter element: PTFE 2µm, 75mm. Connections: G1/4" f (gas inlet, gas outlet)	30008683
Filter body: SS316. Filter element: glass-fiber 0.1µm, 75mm. Connections: G1/4" f (gas inlet, gas outlet)	30008684

Dimensions

Filter unit without drain,
for filter element 75mm (150mm)



Filter unit with drain,
for filter element 75mm (150mm)



Dimensions in mm