CLF-T

Fluid Particle Filter Series CLF®

Version CLF-T, CLF-SS made out of special materials, for removal of aerosols from gases

Special Features

- **High retention rate of 99.99 % for particles > 0.1 µm**
- **High chemical resistance of type CLF-T**
- **Type CLF-SS suitable for high pressure applications**
- **Condition of filter element CLF-T visible from outside**
- **Easy change of filter element**
- **Wall mounting**

Application

The M&C fluid particle filter CLF-.. is suitable for filtration of fluid particles of all types and is recommended for sample gases with an acid dew point above 100 °C (212 °F). Examples are measurements in flue gas of heavy oil and black coal combustions.

The filter separates the aerosols (very fine fluid particles) which still pass the gas cooler. The most effective position of the CLF-.. filter is downstream the sample conditioning close to the flowmeter of the analyser.

Description

The filter element of the M&C fluid particle filter is constructed in two sections with a flow direction from the inside to the outside of the filter element. The inner, very fine, fibre layer binds the fluid particles suspended in the gas and leads them together with the gas flow to the outer, larger layer. On their way through the filter element, the very fine fluid particles accumulate with others and form droplets. The vertical flow direction and the force of gravity cause the droplets to drip into the filter pot.

The filter element remains fully effective even when completely saturated with fluid. If it is not effected by solid particles, the lifetime is nearly unlimited. The compressed microfibres are made with binding of PVDF in order to prevent influences on the sample gas.

The condition of the CLF-T filter is visible through the glass body without opening the filter.

The separated acid mist can continuously be discharged with an external mounted peristaltic pump SR25.1 or a liquid drain AD-SS (option) connected by a GL25 or a G3/8" adapter.

No tools are required to change the filter element. The optimised position of the O-ring always guarantees a safe sealing of the filter body to the filter head. The filter in- and outlet can be turned by 180° on the mounting bracket to achieve easy mounting and flexible adaption to local circumstances.

The filter is made out of PTFE/glass or stainless steel 316Ti.

Handle with care! Danger of acid burns!

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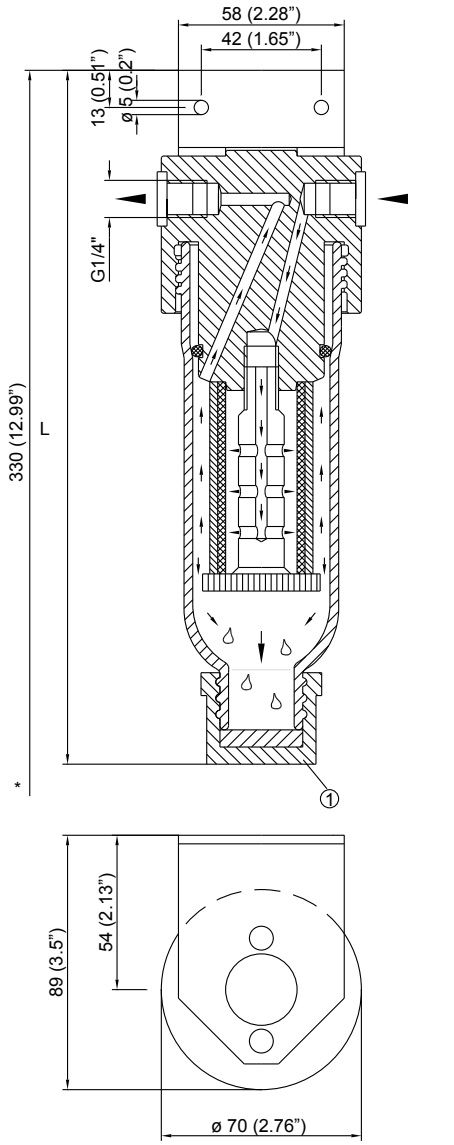
Dimensions



Version:	CLF-T	CLF-SS
Measure L:	240 (9.45")	210 (8.27")
Drain: ①	GL25	G3/8"i

*Constructional size

Dimensions in mm (Inches)

Technical Data

Fluid particle filter	CLF-T	CLF-SS
Part No.	03 F 2100	03 F 2300
Material of sample contacting parts	PTFE, glass, FPM	stainless steel 316Ti, FPM
Gas pressure (ΔP max. 1 bar)	0.2-2 bar abs.	0.2-26 bar abs.
Gas flow	max. 300 Nl/hr	
Differential pressure for a new filter element, with air, 20 °C (68 °F)	1 2.5 4.5 mbar 100 200 300 Nl/h	
Sample temperature	max. 100 °C (212 °F)	
Ambient temperature	0 °C to +100 °C (32 °F to 212 °F)	
Storage temperature	-30 °C to +120 °C ~-22 °F to 248 °F)	
Filter element	2-layer CLF-4	
Retention rate	99.99 % for particles >0.1 µm	
Filter dead volume	135 cm^3	
Reservoir capacity for liquid	50 ml	
Sample gas connection	G 1/4"i DIN ISO 228/1	
Drain connection	GL25 cap	G 3/8" plug
Type of mounting	wall mounting	
Weight	approx. 0.8 kg (1.76 lb)	approx. 2.2 kg (4.85 lbs)

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