Filter monitoring device

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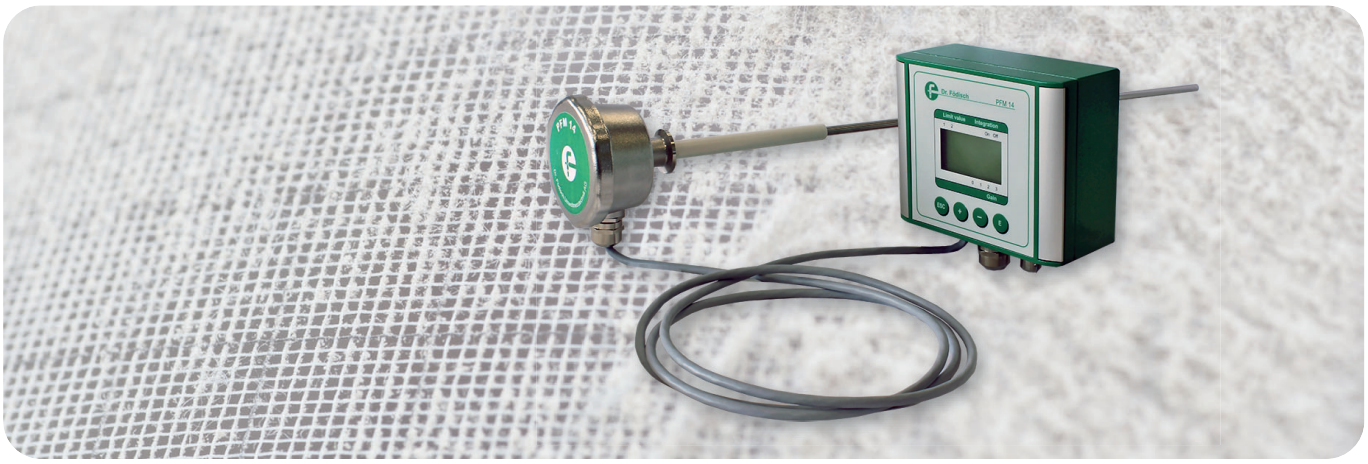


Continuous, tribo-electric in-situ measurement for qualitative monitoring of exhaust gas

APPLICATION

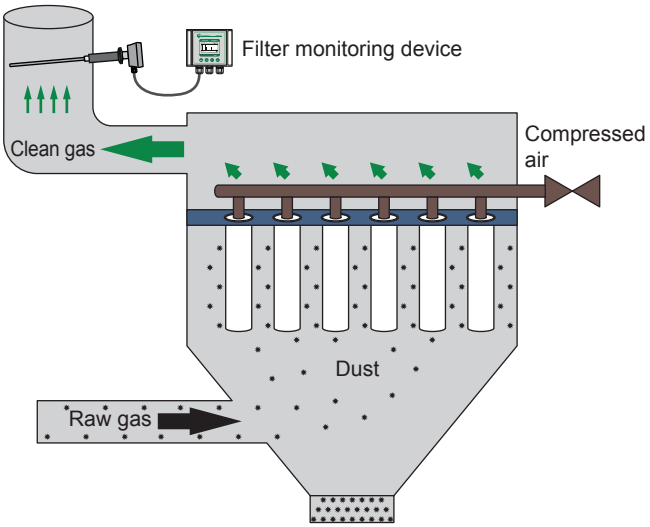
The PFM 14 serves the permanent control of dust emissions. It can be applied as a filter monitoring device as well as configured as a dust measuring device.

The device consists of a probe with separated operating unit. They are connected via a cable by plug-in connections. Thereby, the operating unit can be mounted from the measuring point up to a distance of 50 m.

YOUR BENEFITS AT A GLANCE

- probe with separated display and operating unit
- local diagnosis of system state by combined operating unit with graphic display
- real-time display with diagram or in text mode with display in % or mg/m³
- no purge air blower required
- low operational costs
- easy mounting

INSTALLATION EXAMPLE

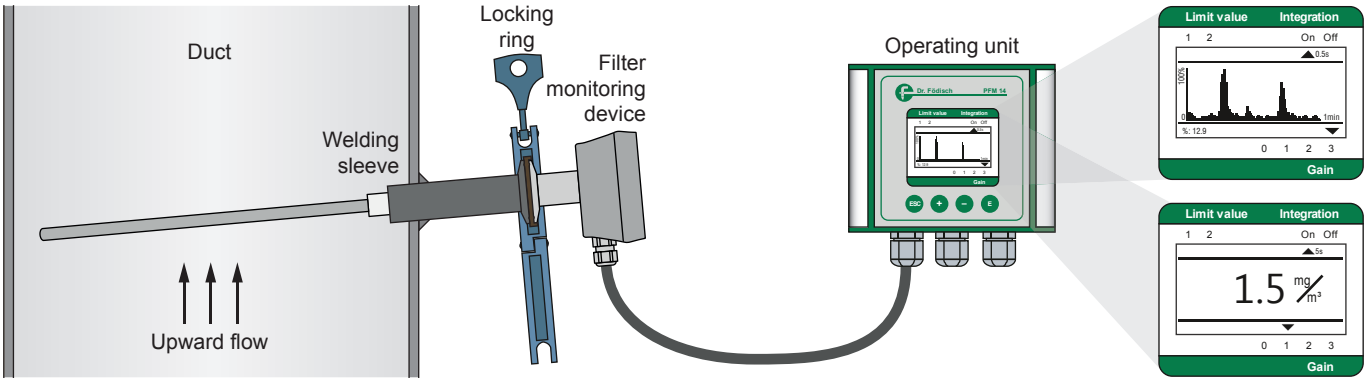


PRECONDITIONS ON SITE

- ambient temperature: -20...+50 °C
- location free of percussion
- homogenous dust and stack gas distribution
- flow velocity of min. 3 m/s
- installation place with run-in/run-out zone of min. 5-fold/2-fold length of duct diameter
- power supply
- processing of measuring signals

PROCESS CONNECTION BY TRI-CLAMP

DISPLAY AS GRAPHIC AND TEXT MODE



TECHNICAL DATA

Housing:	tribo-electric probe with separate operating unit (max. cable length 50 m); IP65, protection class 1
Probe:	approx. 100 mm x 100 mm x 530/730 mm (w x h x d), weight approx. 2.1 kg; probe rod: electrically isolated from housing, length: 300 mm resp. 500 mm (possible to shorten mechanically); immersion depth: 400 mm resp. 600 mm (dependent on application)
Operating unit:	approx. 160 mm x 160 mm x 70 mm (w x h x d), weight approx. 3.0 kg
Display / Operating:	operating unit: graphic display (128 x 64 Pixel), 4 operating keys; probe: switches at signal module
Ambient temperature:	-20...+50 °C
Relative humidity:	no special sensitivity
Dew-point spread:	min. +5 K
Measuring gas temperature:	max. 280 °C
Measuring range of dust:	qualitative: 0...100%; quantitative: 0...10 mg/m³ (0...1000 mg/m³)
Gain levels:	4
Operational availability:	after approx. 5...10 min
Calibration:	by gravimetric comparison measurements (for trend measurement and filter analysis not required)
Analogue output:	4...20 mA, galvanically isolated to device ground, burden max. 500 Ω
Digital outputs:	status signals max. 24 V DC at 0.1 A (for failure, maintenance, maintenance requirement, limit value 1 and 2); load capacity: max. 60 Vp, max. 75 mA; forward resistance: max. 10 Ω
Process connection:	1" welding sleeve with Tri-Clamp fastener
Cable gland / tightening zone:	2x M20 x 1.5 / 9...13 mm
Power supply:	230/110 V AC, 50-60 Hz, 24 V DC, 5 VA

Special models are possible on request.

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