

PFM 20

Particulate Filter Monitor



Product Information

MCERTS / QAL 1 approved continuous, qualitative, in-situ measurement for real-time monitoring of dust emissions.



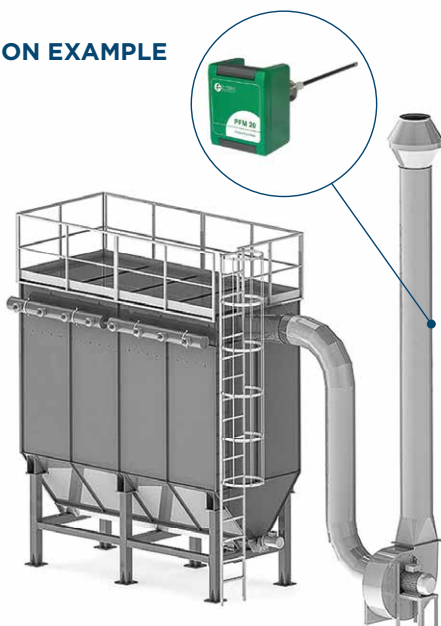
APPLICATION

The PFM20 (Particulate Filter Monitor) is a highly sensitive device designed to suit the most demanding of applications. It is QAL 1 and MCERTS approved with a lowest certified range of 0 – 7.5 mg/m³ making it suitable for use both in incineration and combustion applications.

This device is simple to install and the tri-clamp mount facilitates tool-free removal for ease of maintenance.

Its robust design, with no moving components or optical surfaces, ensures a long life with low ownership costs.

INSTALLATION EXAMPLE



YOUR BENEFITS AT A GLANCE

- Lowest certificated range 0 - 7.5 mg/m³ dust, max. measuring range 0...250 mg/m³ dust (special range 0...1,000 mg/m³ dust on request)
- Automatic zero and reference point check
- Compact probe head and coated probe rod
- Customizable probe rod lengths and power supply options
- Modbus RS 485, analogue & digital signal output
- Connectivity for external display and operation unit (DUX 20; optional)
- Robust device and long-term stable measurement results

PRECONDITIONS ON SITE

- Ambient temperature: -20...+50 °C
- Flow velocity of min. 3 m/s
- Dew-point spread: min. +5 K
- Processing of measuring signals



• EN 15267-3 Tested
• QAL1 Certified
• TÜV Approved
• Annual inspection



• ISO 9001:2015
• ISO 14001:2015
• ISO 45001:2018



• Certified in compliance with MCERTS Performance Standards
• Certificate no: Sira MC170329/00

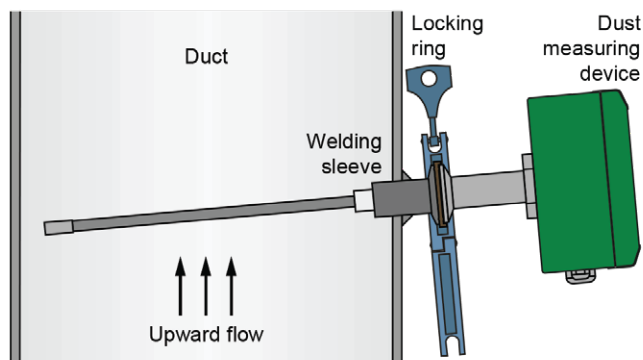


• Certified in compliance with GOST
• Certificate no: MW-2550-0272-2016

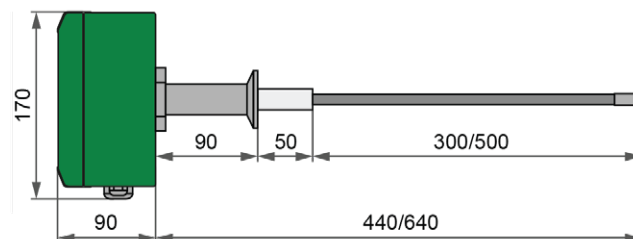




PROCESS CONNECTION BY TRI-CLAMP



DIMENSIONS



TECHNICAL DATA

Housing	Compact device with aluminium housing; IP 65
Probe	Tribo-electric probe consisting of probe rod and probe head; coated probe rod, electrically isolated from housing, probe rod length: 300/500 mm
Dimensions; weight	130 mm x 170 mm x 530/730 mm (w x h x d); 2.1 kg (300 mm)/2.25 kg (500 mm)
Operating conditions: Exhaust gas temperature	max. 280 °C
Relative humidity (air)	No special sensitivity
Measuring range of dust	Raw signal: 0...250 mV; dust concentration: 0...250 mg/m ³ (0...1,000 mg/m ³ on request)
Operational availability	Approx. 1 min after switch-on of power supply
Calibration	By gravimetric comparison measurements (not required for trend and filter analysis)
Analogue outputs	2 x 4...20 mA, galvanically isolated to device ground, burden max. 500 Ω outputs for: • Dust concentration CiB [mg/m ³] • Raw signal [mV]
Analogue input	1 x 4...20 mA for external velocity v [m/s], galvanically isolated to device ground
Digital outputs	4 potential-free contacts for failure, maintenance, limit value 1 and limit value 2 / optionally maintenance request; 24 V, 100 mA
Interfaces	• USB interface to PC (for parameter setting) • Modbus RS 485 according to directive VDI 4201 page 3 • Modbus for optional unit (DUx 20)
Process connection	Welding sleeve with Tri-Clamp fastener
Cable gland / tightening zone:	• 1x M16 x 1.5; • 2x M12 x 1.5
Power supply	• 110...240 V AC, 50...60 Hz, fuse 1 AT, 10 W; pre-fuse: min. 1.2 AT • 24 V DC (optional), 10 W; pre-fuse: min. 500 mA
Optional	• Linearity test module (LinTest PFM 20) • Display and operation unit (DUx 20)
Suitability Test	As Environment Agency Guidance "MCERTS for stack emissions monitoring equipment at industrial installations" - Continuous emissions monitoring systems (CEMS) Published 20 October 2020 - EN 15267-1:2009, EN15267-2:2009 & EN 15267-3:2007 & QAL 1 as defined in EN 14181: 2014 - QAL 1 Cert.-No: 000081147_00 - MCERT Cert.-No: CSA MC22041600/00

Special models are possible on request



• EN 15267-3 Tested
• QAL1 Certified
• TÜV Approved
• Annual inspection



• ISO 9001:2015
• ISO 14001:2015
• ISO 45001:2018



• Certified in compliance with MCERTS Performance Standards
• Certificate no: Sira MC170329/00



• Certified in compliance with GOST
• Certificate no: MW-2550-0272-2016

