

CONFIRMATION

of Product Conformity (QAL1)

Approved AMS: PFM 20 for dust

Manufacturer: Dr. Födisch Umweltmesstechnik AG
Zwenkauer Str. 159
04420 Markranstädt
Germany

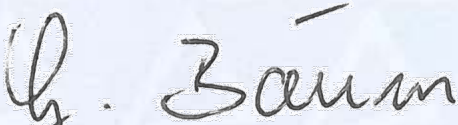
Test Institute:: TÜV Rheinland Energy & Environment GmbH


**This is to certify that the AMS has been tested
according to the standards
EN 15267-1 (2009), EN 15267-2 (2023), EN 15267-3 (2007)
as well as EN 14181 (2014).**

The AMS underwent independent expert testing and was accepted.
This confirmation is valid up to the publication of the certificate,
but no longer than 6 months from the date of issue
(this document contains 4 pages).

This confirmation is valid until: 14 August 2024

TÜV Rheinland Energy & Environment GmbH
Cologne, 15 März 2024


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Test institute accredited to EN ISO/IEC 17025 by DAkkS (German Accreditation Body).
This accreditation is limited to the accreditation scope defined in the enclosure to certificate D-PL-11120-02-00.

Confirmation:
15 February 2024

Test Report: EuL/21258058/A dated 29 September 2023
Initial certification: 11 April 2022
Expiry date: 14 August 2024

Approved application

The tested AMS is suitable for use at plants according to Directive 2010/75/EC, chapter III (combustion plants / 13th BImSchV:2021), chapter IV (waste incineration plants / 17th BImSchV:2021), Directive 2015/2193/EC (44th BImSchV:2022), 30th BImSchV:2019, TA Luft:2021 and 27th BImSchV:2013. The measured ranges have been selected so as to ensure as broad a field of application as possible.

The suitability of the AMS for this application was assessed on the basis of a laboratory test and a 15 month field test at a industriellen Trocknungsanlage zur Produktion von keramischen Bodenbelegen.

The AMS is approved for an ambient temperature range of -20 °C to 50 °C.

The notification of suitability of the AMS, performance testing and the uncertainty calculation have been effected on the basis of the regulations applicable at the time of testing. As changes in legal provisions are possible, any potential user should ensure that this AMS is suitable for monitoring the emission limit values relevant to the application.

Any potential user should ensure, in consultation with the manufacturer, that this AMS is suitable for the intended purpose.

Note

The legal regulations mentioned do not correspond to the current state of legislation in every case. Each user should, if necessary, in consultation with the competent authority, ensure that this AMS meets the legal requirements for the intended use. In addition, it cannot be ruled out that legal regulations governing the use of a measuring device for emission monitoring may change during the lifetime of the certificate.

Basis of the confirmation

This confirmation is based on:

- Test report EuL/21258058/A dated 29 September 2023 issued by TÜV Rheinland Energy GmbH
- The ongoing surveillance of the product and the manufacturing process
- Expert testing and approval by an independent body
- Suitability announced by the relevant body.

Confirmation:
15 February 2024

AMS designation:

PFM 20 for dust

Manufacturer:

Dr. Födisch Umweltmesstechnik AG, Markranstädt

Field of application:

For plants requiring official approval and for plants according to the 27th BImSchV.

Measuring ranges during performance testing:

Component	Certification range	additional range			Unit
		0 - 15	0 - 30	0 - 250	
Dust	0 - 7.5	0 - 15	0 - 30	0 - 250	mg/m ³

The measuring range 0 - 30 mg/m³ complies in the fieldtest to app. 0 - 7.5 mg/m³ dust.

Software version: v1.43

Restrictions:

1. At plants with fluctuating waste gas velocities, the measuring system requires the signal of a QAL1-certified and calibrated waste gas velocity measuring device to compensate for the influence of velocity.
2. The measuring system must not be operated behind electrostatic precipitators.
3. The measuring system may only be used in waste gases that are not saturated with water vapour.

Notes:

1. The maintenance interval is three months.
2. The dust concentration is measured in wet waste gas under operating conditions.
3. Supplementary test (extension of the maintenance interval) with regard to the announcement of the Federal Environment Agency (UBA) of 5 July 2023 (BAnz AT 02.08.2023 B10, chapter I number 1.1).

Test Institute:

TÜV Rheinland Energy GmbH, Cologne

Report No.: EuL/21258058/A dated 29 September 2023

Confirmation:
15 February 2024

Tested product

This confirmation applies to automated measurement systems conforming to the following description:

Measurement with the PFM 20 is carried out using the triboelectric measuring principle. The test gas in the waste gas flow is detected with the aid of the probe rod. Due to the dust particles flowing around and bouncing off, a charge exchange takes place between them and the probe rod. The derived current results in a signal that is dependent on the mechanical and electrical properties of the dust. The signal of the measuring system is also dependent on the exhaust gas velocity of the medium to be monitored. The dust-proportional signal, which is generated by the electronics integrated in the unit, is the measurement of the dust content.

The AMS can compensate for the influence of the waste gas velocity on the measured signal. To do this, it requires the signal from a QAL1-certified and calibrated waste gas velocity measuring system installed in the same measuring section.

The PFM 20 dust monitor consists of an in-situ probe with probe head and probe rod. The probe rod has a high-temperature coating for insulation. It is surrounded by a sleeve and an insulating body and is thus electrically isolated from the housing. The signal module with the evaluation electronics is located in the probe head.

The PFM 20 measuring system tested here consists of:

- The PFM 20 measuring system with the current software and
- A cable connecting the probe with the electronics.

The PFM20_HID software is required to operate the PFM 20 measuring system with a PC.

A standard notebook PC is required to parameterise the measuring system and to display the measured results of the AMS. The data is transferred via a specific USB cable.

The measuring probe is mounted on the flue to be measured using a flange with a Tri-Clamp quick-release fastener.

The LinTest PFM 20 test system is available for the annual AST of the PFM 20 measuring system. The signal generator can be used to perform linearity tests as well as zero and span point checks.