TÜVRheinland®
Precisely Right.

CONFIRMATION

of Product Conformity (QAL1)

Approved AMS:	OPM250 for suspended particulate matter PM_{10} and $PM_{2,5}$
Manufacturer:	ENVEA 111, Boulevard Robespierre 78304 Poissy France
Test Institute::	TÜV Rheinland Energy & Environment GmbH

This is to certify that the AMS has been tested according to the standards

**VDI 4202-3, EN 12341 (2014), EN 16450 (2017),
Guide for Demonstration of Equivalence of Ambient Air Monitoring Methods (2010)
as well as EN 15267-1 (2009) and EN 15267-2 (2023).**

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: 31 December 2025

TÜV Rheinland Energy & Environment GmbH
Cologne, 4 July 2025

i. V. Dipl.-Ing. G. Baum

i. A. Dipl.-Ing. C. Röllig

www.umwelt-tuv.eu qal1-info@tuv.com Tel. +49 221 806-5200	TÜV Rheinland Energy & Environment GmbH Am Grauen Stein 51105 Köln

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:
4 July 2025

TÜVRheinland®
Precisely Right.

Test Report:	EuL/21269536/A dated 29 January 2025
Expiry date:	31 December 2025

Approved application
The tested AMS is suitable for continuous immission measurement of PM_{10} and $PM_{2,5}$ in stationary use.

The suitability of the AMS for this application was assessed on the basis of a laboratory test and a field test at four different locations with different time periods.

The AMS is approved for an ambient temperature range of +5° to 40°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 measured values relevant to the application.

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/21269536/A dated 29 January 2025 issued by TÜV Rheinland Energy & Environment GmbH
- The ongoing surveillance of the product and the manufacturing process
- Expert testing and approval by an independent body
-

AMS designation:
OPM250 for suspended particulate matter PM_{10} and $PM_{2,5}$

Manufacturer:
ENVEA

Field of application:
For continuous ambient air monitoring of PM_{10} and $PM_{2,5}$ (stationary operation)

Measuring ranges during performance testing:

Component	Certification range	Unit
$PM_{2,5}$	0 – 5,100	µg/m³
PM_{10}	0 – 12,000	µg/m³

Software version:
1.03 (Firmware)
0.08 (FPGA)
1.02 (GUI)

Restrictions:
none

Notes:

1. The measuring insert of the measuring system must be sent to ENVEA Service or an authorised ENVEA service partner at least every 12 months (or when the "Calibration" wear indicator is completely red) for maintenance, including a calibration check.
2. The Field Test Kit (FTK) can optionally be used for the measuring device to check the calibration on site / in the field. The Field Test Kit (FTK) can be applied to the entire system (incl. sampling tube) or directly to the measuring insert. If the result of the calibration check using the Field Test Kit (FTK) is positive, it is not necessary to send the measuring insert to ENVEA Service or an authorised ENVEA service partner every 12 months.
3. The measuring system can be operated with either the WS300, WS500 or WS600 weather stations.
4. The measuring system can also be used in the fully air-conditioned, weatherproof housing model 199 from ENVEA.
5. The test report on the suitability test can be viewed on the Internet at www.qal1.de.

Test Institute:
TÜV Rheinland Energy & Environment GmbH, Cologne
Report No.: EuL/21269536/A dated 29 January 2025

Tested product

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

The OPM250 measuring system is a measuring device for suspended particulate matter in ambient air. The suspended particulate matter concentration is determined using an optical aerosol spectrometer, which uses scattered light analysis on the individual particles to determine the particle size distribution and calculates the corresponding mass concentrations using an algorithm.

The EDM 280 measuring system is designed for installation in a measuring container with a roof duct (or alternatively in the fully air-conditioned, weatherproof Model 199 housing). It essentially consists of sampling and measuring insert. The sampling unit is designed for permanent installation in a 19" rack and consists of a sample tube with sampling head (Sigma-2), a weather sensor from Ott Hydromet / Lufft (WS300, WS500 or WS600), a roof flange with rain deflector and, inside, the water separator and sample tube holder.

The measuring module is mounted in the rack under the sample tube holder and connected to the sampling system in just a few simple steps. It contains the aerosol spectrometer and all
components subject to wear and tear and can therefore be easily removed for maintenance and calibration.

A condensate trap, which is automatically emptied during the self-test, and a two-stage dust filter with a pre-filter and a residual dust filter are located next to the optical measuring cell. The sample volume flow is regulated automatically. The sample air pump also conveys the purge air, which is extracted from the pump exhaust air in the device via an ultra-fine filter and kept constant by a purge air regulator. The purge air prevents contamination of the illumination and detection optics and is used as particle-free reference air during the device self-test.

The sample air is drawn in at a constant flow rate of 1.2 l/min (based on operating conditions at the measuring orifice) via the Sigma-2 sampling head (non-fractionating, equipped with a head heater to prevent ice formation) and fed vertically via the sample tube for sample air conditioning into the optical measuring cell in the measuring insert. The adaptive heating in the sample tube is actively controlled so that no condensation can occur on the way of the aerosol to the measuring cell and at the same time the heating of the aerosol is minimised.

The device is controlled either via the touch display on the front of the device or via one of the interfaces (RS-232, USB-B, Ethernet) and one of the data protocols (GRIMM protocol, Modbus TCP, GESYTEC / Bayern-Hessen protocol).

In addition to the suspended particulate matter fractions for PM10 and PM2.5, further extensive measurement data (suspended particulate matter fractions TSP, PM4, PM1 and PMCoarse, total particle number concentration, particle number size distribution in 72 size channels (0.178 µm to 29,4 µm optical latex equivalent diameter) as well as data from the Ott Hydromet / Lufft WS300 weather station (ambient temperature, humidity, ambient pressure), WS500 (like WS300, plus wind direction and wind direction) or WS600 (like WS300, plus wind direction, wind direction and precipitation).