CERTIFICATE

of Product Conformity (QAL1)

Certificate No.: 0000081165_00

Certified AMS:	Leak Alert 90 (Dust Monitor)
Manufacturer:	ENVEA UK Ltd., ENVEA House, Rose & Crown Road Swavesey, Cambridge CB24 4RB United Kingdom
Test Institute:	TÜV Rheinland Energy & Environment GmbH

This is to certify that the AMS has been tested and found to comply with the standards EN 15267-1 (2009), EN 15267-2 (2009), EN 15859 (2010) as well as EN 14181 (2014).

Certification is awarded in respect of the conditions stated in this certificate (this certificate contains 5 pages).

TÜVRheinland® CERTIFIED

Suitability Tested
EN 15267
QAL1 Certified
Regular Surveillance

www.tuv.com
ID 0000081165

Publication in the German Federal Gazette (BAnz) of 10 May 2024

German Environment Agency

Dessau, 12 June 2024

This certificate will expire on:
9 May 2029

TÜV Rheinland Energy & Environment GmbH
Cologne, 11 June 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 the certificate D-PL-11120-02-00.

Test report:	EuL/21255874/A dated 29 September 2023
Initial certification	10 May 2024
Expiry date:	9 May 2029
Publication:	BAnz AT 10.05.2024 B7, chapter I No. 1.1

Approved application

The tested AMS is suitable for use as a dust monitor for filter monitoring downstream of filter systems at plants 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), TA Luft:2021, 30th BImSchV:2019 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 five month field test at a waste incineration plant.

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 measured values / emission limit values relevant to the application.

Any potential user should ensure, in consultation with the manufacturer, that this AMS is suitable for the installation at which it will be installed.

Note

The legal regulations mentioned correspond to the current state of legislation during certification. 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 certification

This certification is based on:

- Test report EuL/21255874/A dated 29 September 2023 of TÜV Rheinland Energy GmbH
- Suitability announced by the German Federal Environment Agency (UBA) as the relevant body
- The ongoing surveillance of the product and the manufacturing process

Publication in the German Federal Gazette: BAnz AT 10.05.2024 B7, chapter I No. 1.1, Announcement by UBA dated 19 March 2024:

AMS designation:
Leak Alert 90

Manufacturer:
ENVEA UK Ltd., Swavesey, United Kingdom

Field of application:
Dust monitor for filter control downstream of dust separators in plants requiring official approval and plants according to the 27th BImSchV

Measuring ranges during the performance test:

Component	Certification range
Dust	0 - 100 % ≙ 4 - 20 mA ≙ 0 - 15 mg/m³

Software version: 3.1

Restrictions:
1. The measuring system can only be used if it can be ensured that the temperature does not fall below the dew point.
2. The measuring system must not be operated downstream of electrostatic precipitators.
3. The measuring system cannot be used at fluctuating speeds below 8.3 m/s.

Notes:
1. The maintenance interval is four weeks.
2. The dust concentration is determined in wet flue gas under operating conditions.
3. The probe must be cleaned after a filter fault with a high dust concentration.

Test institute:
TÜV Rheinland Energy GmbH, Cologne
Report No.: EuL/21255874/A dated 29 September 2023

Certified product

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

The Leak Alert 90 operates according to the electrodynamic measuring principle, a further development of the triboelectric method. The direct current signal (DC signal) resulting from the collision of particles with the measuring head in the stack is filtered out electronically. An alternating current signal (AC signal) is produced as a result of charged particles flowing past the sensor rod and causing an interaction.

The dust signal is amplified, digitized and further processed at the measuring head. In constant processes with bag filters (where normally the particle charge characteristics are constant), the processed signal is proportional to the dust concentration.

The tested version of the Leak Alert 90 measuring device consists of the following individual components:

- Sensor consisting of the measuring lance (length 60 cm) with flanged electrical housing,
- PC-ME DUST TOOLS software

The Leak Alert 90 measuring device has a function for automatic checking of the zero and reference point. The sensors perform a cycle of three automatic self-tests: zero, range and short-circuit monitoring.

After conversion by the analog-to-digital converter (ADC), the digital signal is sent to the microprocessor. This signal is first converted into raw counts, and then further processed into a measuring signal. The front-end amplifier has a switchable gain setting.

General notes

This certificate is based upon the equipment tested. The manufacturer is responsible for ensuring that on-going production complies with the requirements of the EN 15267. The manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management systems shall be subject to regular surveillance.

If a product of the current production does not conform to the certified product, TÜV Rheinland Energy & Environment GmbH must be notified at the address given on page 1.

A certification mark with an ID-Number that is specific to the certified product is presented on page 1 of this certificate. This certification mark may be applied to the product or used in advertising materials for the certified product.

This document as well as the certification mark remains property of TÜV Rheinland Energy & Environment GmbH. With revocation of the publication the certificate loses its validity. After the expiration of the certificate and on requests of the TÜV Rheinland Energy & Environment GmbH this document shall be returned and the certificate mark must not be employed anymore.

The relevant version of this certificate and its expiration is also accessible on the internet: **qal1.de**.

History of documents

Certification of Leak Alert 90 is based on the documents listed below and the regular, continuous monitoring of the Quality Management System of the manufacturer:

Initial certification according to EN 15267
Certificate No. 0000081165_00: 12 June 2024
Expiry date of the certificate: 9 May 2029
Test report: EuL/21255874/A dated 29 September 2023
TÜV Rheinland Energy GmbH
Publication: BAnz AT 10.05.2024 B7, chapter I number 1.1
UBA announcement dated 19 March 2024