TÜVRheinland®
Precisely Right.

CONFIRMATION

of Product Conformity (QAL1)

Certified AMS:	CO 12e for CO
Manufacturer:	ENVEA 111, Boulevard Robespierre 78304 Poissy Cedex France
Test Institute:	TÜV Rheinland Energy & Environment GmbH

This is to certify that the AMS has been tested and found to comply with the standards VDI 4202-1 (2018), EN 14626 (2012), EN 14626 (2024) 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: 30 April 2026

TÜV Rheinland Energy & Environment GmbH
Cologne, 4 July 2025

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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.

confirmation:
4 July 2025

Test report:	936/21228317/A dated 9 October 2015 and Addendum EuL/21264142/D of 7. February 2025
Expiry date:	30 April 2026

Approved application
The tested AMS is suitable for continuous ambient air monitoring of CO (stationary operation).

The suitability of the AMS for these applications was assessed based on a laboratory test and a 3-month field test.

The AMS is approved for an ambient temperature range of +0°C 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.

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

Basis of the confirmation
This confirmation is based on:

- Test report 936/21228317/A dated 9 October 2015 of TÜV Rheinland Energie und Umwelt GmbH and Addendum EuL/21264142/D of 7. February 2025 issued by TÜV Rheinland Energy & Environment GmbH
- Suitability announced by the German Federal Environment Agency (UBA) as the relevant body
- The ongoing surveillance of the product and the manufacturing process

confirmation:
4 July 2025

Notification of the Federal Environment Agency of 18 February 2016 (BAnz AT 14.03.2016 B7, Chapter III Number 1.1) and of 2 April 2025 (Banz AT 19.05.2025 B3, Chapter IV, 92nd notification).

The current software version for the CO12e*/CO12e for CO measuring system from ENVEA is

v1.3.a

From software version v1.3.a, the measuring system fulfils the requirements of EN 14626 (edition 2024). An addendum to the test report with the report number EuL/21264142/D can be viewed on the Internet at www.qal1.de.

Statement by TÜV Rheinland Energy & Environment GmbH dated 20 May 2025

Tested product

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

The CO 12e is a continuous carbon monoxide analyser. Which uses the method of non-dispersive infrared photometry, designed for the continuous measurement of carbon monoxide in ambient air.

The CO 12e uses the method of infrared absorption according to the Beer-Lambert Law.

The AMS is available in two versions:

- The version **CO 12e** is fitted with a TFT LCD coloured display with backlight and a touch screen function. Signal output as well as operation can also be carried out via the web browser using an external PC connected via Ethernet.
- The version **CO 12e*** is not fitted with a display. Signal output as well as operation can only be operated via the web browser on an external PC connected via Ethernet.

Additionally, the AMS front side is fitted with the main switch.

Apart from that, both versions of the AMS are of identical design.

Fluid inputs and outputs as well as electrical connections are located on the rear side of the AMS.

The analyser's inside can be roughly divided in two components:

The **mechanical** component consists of an electro valve filter unit as well as the measuring cell. The sample to be analysed is led through a dust filter to the module which consists of two magnet valves. The pump draws the sample via the measurement cell in which the CO molecules selectively absorb infrared radiation centered to a wavelength of 4.67 µm. An optical sensor as well as a light source are located within the measurement cell. A selective CO filter allows for zero point correction.

The **electronic** component consists of a power supply providing a supply voltage of 24 V. It is connected to the outlet as well as the connection chip. The supply card provides additional internal supply voltage (24 V, 15 V, 5 V, 3.3 V). The control card controls general operation of the analyser (magnet valves, pressure and temperature control). The measurement card processes the measurement data and controls the motor and the infrared source. The HMI card controls the data output as well as the visualisation on the touch screen display.