TÜVRheinland®
Precisely Right.

CONFIRMATION

of Product Conformity (QAL1)

AMS designation:	N200 for NO, NO_2 and NO_x
Manufacturer:	Teledyne API 9970 Carroll Canyon Road San Diego, CA, 92131 USA
Test Laboratory:	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 14211 (2012), EN 14211 (2024) EN 15267-1 (2009) and EN 15267-2 (2023).

he AMS underwent independent expert testing and was accepted.
This confirmation is valid up to the publication of the certificate,
but no longer than 9 months from the date of issue
(this certificate contains 4 pages).

This confirmation is valid until: 31 December 2026

TÜV Rheinland Energy & Environment GmbH
Cologne, 10 April 2026

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

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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.

Test report: 936/21255654/A of 25 January 2023 and Addendum EuL/21272240/A of 15. July 2025

Expiry date: 31 December 2026

Approved application
The certified AMS is suitable for continuous ambient air monitoring of nitrogen oxides (stationary operation).

The suitability of the AMS for this application was assessed on the basis of a laboratory test and a three-month field test.

The AMS is approved for an ambient temperature range of +0 °C to +45 °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 regulations are possible, any potential user should ensure that this AMS is suitable for monitoring the limit value relevant to the application.

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

Basis of the conformation
This certification is based on:

- Test report 936/21255654/A of 25 January 2023 by TÜV Rheinland Energy GmbH and Addendum EuL/21272240/A of 15. July 2025 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

Notification on the announcements of the Federal Environment Agency of 05th July 2023 (BAnz AT 02.08.2023 B7, Chapter II number 2.1) and of 2nd April 2025 (Banz AT 19.05.2025 B3, Chapter IV, 67th notification).

The measurement system N200 for NO, NO_2 and NO_x from Teledyne API fulfils the requirements of EN 14211 (edition 2024). An addendum to the test report with the report number EuL/21272240/A can be viewed online at www.qal1.de.

Statement by TÜV Rheinland Energy & Environment GmbH dated 15 July 2025

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Genau. Richtig.

Tested product

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

The Nitric Oxide Analyzer N200 determines the concentration of Nitric Oxide (NO), Total Nitric Oxide (NO_x, the sum of NO and NO_2) and Nitrogen Dioxide (NO_2) of a sample drawn into the instrument. For this purpose, sample and calibration gases must be provided at ambient air pressure to ensure a constant gas flow through the reaction chamber. In the reaction chamber, ozone (O_3) is applied to the sample gas, causing a light-emitting chemical reaction (chemiluminescence). The instrument measures the amount of chemiluminescence to determine the NO content in the sample gas. A catalytic-reactive converter converts any NO_2 in the sample gas to NO, which is then displayed as NO_x, including the NO in the sample gas. NO_2 is calculated as the difference between NO_x and NO.

The only gas that is actually measured in the N200 is NO. Any NO_2 contained in the gas is not detected because NO_2 does not react with O_3 to be exposed to chemiluminescence. To measure the concentration of NO or NO_x, the N200 periodically cycles the sample gas stream through a converter cartridge filled with molybdenum chips and heated to a temperature of 315°C. The heated molybdenum reacts with the NO_2 in the sample gas and converts it to NO. After the NO_2 in the sample gas is converted to NO, it is passed through the reaction chamber where it is subjected to the chemiluminescence reaction.

By converting the NO_2 in the sample gas to NO, the analyzer can measure the total NO_x (NO + NO_2) content in the sample gas. By turning the NO_2 converter on and off in and out of the gas stream at 6 - 10 second intervals, the analyzer can quasi continuously measure both NO and total NO_x content. The NO_2 concentration is ultimately not measured, but calculated by subtracting the known NO content from the sample gas from the known NO_x content.