TÜVRheinland®
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CONFIRMATION

of Product Conformity (QAL1)

Approved AMS:	TDLS8000-S2-A3 for NH_3 and H_2O
Manufacturer:	Yokogawa Electric Corporation 2-9-32 Nakacho, Musashino-shi, Tokyo 180-8750 Tokyo Japan
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 March 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.

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Test Report: EuL/21232630/B dated 16 August 2023

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 7 month field test at a waste incineration.

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/21232630/B dated 16 August 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

AMS designation:
TDLS8000-S2-A3 for NH_3 and H_2O

Manufacturer:
Yokogawa Electric Corporation

Field of application:
For plants requiring approval as well as plants according to the 27th BImSchV

Measuring ranges during performance testing:

Component	Certification range	Supplementary measuring ranges	Unit
NH_3	0 – 25*	0 – 50*	mg/m³
H_2O	0 – 30*	0 – 40*	Vol.-%

* related to a measuring path length of 1.0 m

Software version: R2.02.01.A04

Restrictions: none

Notes:
1. The maintenance interval is three months.
2. The suitability test was carried out with the device variant TDLS8000-S2-A3-D8-A1-J-N/SCT. The suitability-tested version of the measuring system can be identified on the rating plate by the suffix code starting with TDLS8000-S2-A3.

Test Institute:
TÜV Rheinland Energy GmbH, Cologne
Report No.: EuL/21232630/B dated 16 August 2023

Tested product

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

The measuring system tested here consists of the laser unit (LU - transmitter unit) and the sensor control unit (SCU - receiver unit), each with a purge line for the optics and the process window. The purge gas, usually instrument air, is regulated to a specific flow rate via a flow meter. In addition, there are external pressure and temperature sensors on the measuring system for the calculation.

A heatable flow cell with a measuring section of 1.0 m was used for the test gas tasks during the laboratory and field tests. This is temperature-controlled.

To maintain the temperature stability of the laser and sensor unit, heating jackets were installed on the device. Additional fan units were also installed on the flow cell for the test gas task during the field test.

During the suitability test, 2 transmitter and 2 receiver units were used. In the laboratory test, all test gas tasks, with the exception of the swirl test and the vibration test, could take place in parallel, as two flow cells were available there. In the field test, only one flow cell was used for environmental reasons, so that the test gas tasks always took place one after the other. The YH8000 operating software was used to access the measuring device and make any settings, such as range calibration

The software version R2.02.01.A04 did not change over the entire test period.

The model name of the tested measuring system is: TDLS8000-S2-A1-D8-A1-J-N/SCT/Z. For the better differentiation, the suitability-tested version was given the suffix code TDLS8000-S2-A3-D8-A1-J-N/SCT.

The measuring system tested here consists of:

- Laser unit LU (transmitter unit)
- Sensor control unit SCU (receiver unit)
- Heatable flow cell with control unit (temperature approx. 180 °C)
- Flow meter
- External pressure and temperature sensor
- Fans and heating jackets
- Manual version Rev.1
- Operating software YH8000
- Software version R2.02.01.A04