

CERTIFICATE

of Product Conformity (QAL1)

Certificate No.: 0000054059_03

DAHS: D-EMS 2020

Manufacturer: DURAG data systems GmbH
Kollastr. 105
22453 Hamburg
Germany

Test Institute: TÜV Rheinland Energy & Environment GmbH

**This is to certify that the data acquisition and handling system (DAHS)
has been tested and found to comply with the standards
EN 17255-1 (2019), EN 17255-2 (2020), EN 17255-3 (2021),
BEP (2023)*, EFÜ (2017)*, EN 14181 (2014)
as well as EN 15267-1 (2009) and EN 15267-2 (2023).**

Certification is awarded in respect of the conditions stated in this certificate
(this certificate contains 9 pages).

The present certificate replaces certificate 0000054059_02 dated 3 July 2024.



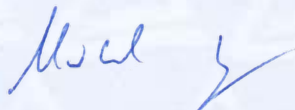
Suitability Tested
EN 15267
QAL1 Certified
Regular
Surveillance

www.tuv.com
ID 0000054059

Publication in the German Federal Gazette
(BAnz.) of 31 October 2025

German Federal Environment Agency (UBA)

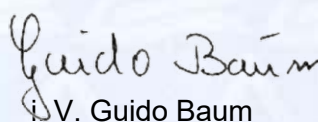
Dessau, 23 March 2026



Dr. Marcel Langner
Head of Section II 4

This certificate will expire on:
22 March 2031

TÜV Rheinland
Energy & Environment GmbH
Cologne, 20 March 2026


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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.

* BEP (2023) Uniform Practice in monitoring emissions 2023 and
EFÜ (2017) teletransmission definition 2017 (remote emission control)

Test report: EuL/21264486/A dated 21 February 2025
Initial certification: 26 March 2018
Expiry date: 22 March 2031
Publication: BAnz AT 31.10.2025 B5, chapter II No. 1.2

Approved application

The tested data acquisition and handling system (DAHS) is suitable for the continuous recording and evaluation of emission measurement data at installations in accordance with TA Luft:2021, the 1. BImSchV:2021, the 2. BImSchV:2020, the 13. BImSchV:2021 (Directive 2010/75/EU, Chapter III), the 17. BImSchV:2024 (Directive 2010/75/EU, Chapter IV), 44th BImSchV:2022, the 27th BImSchV:2013, the 30. BImSchV:2022 and the 31. BImSchV:2024 (Directive 2010/75/EU, Chapter V). The tests were carried out taking into account with the Federal Standard Practice (2023). Data transmission between the AMS and the DAHS is analogue (0 - 20 mA) and digital (VDI 4201 Modbus, 2012).

The system also contains the tele transmission of emission data over modem or FTPES connection.

The tests were carried out as a performance test in the laboratory. In the laboratory test, different types of installations were simulated.

The DAHS is approved for the ambient temperature range of +5 °C to +40 °C.

The notification of suitability of the DAHS, 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 DAHS is suitable for monitoring the emission limit values relevant to the application.

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

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 DAHS 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/21264486/A dated 21 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

Publication in the German Federal Gazette: BAnz AT 31.10.2025 B5, chapter II No. 1.2,
Announcement by UBA dated 27 August 2025:

Data acquisition and handling system:

D-EMS 2020

Manufacturer:

DURAG DATA SYSTEMS GmbH, Hamburg

Field of application:

Emission data acquisition, evaluation and remote data transmission for plants with continuous monitoring according to EN 17255, BEP2023 and plants under the TEHG (Emissions Trading Act) for installations with continuous monitoring.

Tested features during performance testing:

- Analogue data transmission
- Digital data transmission in line with VDI standard 4201, Part 1 (general requirements), Part 2 (Profibus), Part 3 (Modbus) and Part 4 (OPC-UA)
- Remote emission data transmission control via modem and FTPES

Software version:

2.0.2407.22009

Restrictions:

None

Notes:

1. Emission data acquisition and evaluation consists of the system for recording analogue and status signals (D-MS 500KE and D-MS 500FC, IO modules type: 750-453, 750-436, 750-553, 750-536) and a PC with the programme package D-EMS 2020.
2. Supplementary test (test according to EN 17255 and BEP2023) to the notifications of the Federal Environment Agency of 28 June 2019 (BAnz AT 22.07.2019 B8, chapter IV number 1.1) and of 2 April 2025 (BAnz AT 19.05.2025 B3, chapter IV notification 2).

Test Report:

TÜV Rheinland Energy & Environment GmbH, Cologne
Report No.: EuL/21264486/A dated 21 February 2025

Certified product

This certificate applies to DAHS conforming to the following description:

The emission data acquisition and analysis system D-EMS 2020 consists of communication and/or top hat rail unit and a PC. The communication (D-MS 500 KE) and/or top hat rail (FC S(P)) units serve to collect analogue and status signals. A 12 bit analogue to digital converter converts analogue to digital signals. The interval for scanning and storing signals is 1/sec.

Data acquisition with the D-MS 500 KE for analogue and status signals

Shielded inputs serve the purpose of data acquisition of current signals between 0–20 mA. For the transformation of the input current into a measured voltage in the input circle a 100 Ohm resistance is integrated. An analogue to digital converter each converts shielded measuring circuits into a 12 bit word.

Status signals are captured via binary input terminals and forwarded as digital signals.

The D-MS 500 KE communication unit allows data memory over a 30-day period by default; an optional 96 days (compact flash card) is provided. Each D-MS 500 KE communication unit allows for a maximum of 11 I/O components.

Overview of technical specifications:

- 3 serial interfaces: 1xRS485, 2xRS232 by default
- 1 RS232 service interface
- 1 Ethernet TCP/IP port
- 1 CAN port (not in use so far)
- 115/230 VAC / 50/60 Hz 100 VA power supply

Input cards (per card)

- 8 analogue inputs with 12 bit resolution, 0–20 mA, 100 Ohm internal resistance
- 15 digital inputs with 24 V internal supply voltage

Data acquisition with D-MS 500 FC S(P) for analogue signals and status signals

Inputs for current signals in the range of 0–20 mA are used for data acquisition. A 100 ohm resistor is located in the input circuit to convert the input current into a measurement voltage. The measurement circuits are each converted into a 12 bit data word using an analogue-to-digital converter. The measurement circuits on a module are galvanically isolated.

Status signals are identified via an optocoupler and passed on as digital signals.

Data storage for a period of 30 days (default), optionally for 96 days on a SD card.

Overview of technical specifications:

- Top hat rail mounting
- 24 V DC / max. 550 mA power supply
- 1 serial RS232/RS485 interface
- 1 PROFIBUS DP Slave interface
- 1 service interface (downstream of the cover plate)
- 2 Ethernet TCP/IP ports
- Protocols: Modbus RTU and TCP, Elan-Master, PROFIBUS, OPC UA, Mode4-Master
- Up to 256 analogue inputs 0/4–20 mA/100 Ohm (4 per module)
- Up to 256 analogue outputs 0/4–20 mA/0–300 Ohm or 300–600 Ohm (4 per module)
- Up to 256 digital inputs (8 per module)
- Up to 256 digital outputs 24 V/0.5 A (8 per module)

Modules

- Head module: 750-8202 (without Profibus slave interface)
- Head module: 750-8206 (identical to 750-8202, with Profibus slave interface)
- Module with 4 analogue inputs: 750-453
- Module with 8 digital inputs: 750-436
- Module with 4 analogue outputs: 750-553
- Module with 8 digital outputs: 750-536
- Module with RS232/RS485 interface: 750-652
- End module: 750-600

Input cards (per card)

- 8 analogue inputs with 12-bit resolution, 0–20 mA, 100 Ω input impedance
- 15 digital inputs with 24 V internal supply voltage

Digitale interfaces

- Modbus TCP/IP; Modbus RTU
- Profibus
- OPC/UA

Data evaluation

The measured value analysis runs on an industrial PC with the following minimum configuration:

- Operating system: Windows 11 or WinServer 2025
- Processor: Intel Core i5 or higher
- Hard disks: at least 1 TB
- Main memory: 8 GB RAM
- Ethernet interface
- Serial (RS 232) optional / USB interfaces
- DCF77 receiver
- Standard printer (optional)
- Internet connection
- External standard analogue modem V92 for EFÜ or remote maintenance (optional)
- CD / DVD-ROM (optional burner) or external hard drive.

Data evaluation can alternatively be performed on a D-EMS 2020 CS compact computer which features the following minimum specifications:

- Operating system: Windows 8.1 and 10
- Processor: Intel Atom N2600 or higher
- Hard drives: min. 300 GB
- Main memory: 2048 MB RAM
- Ethernet interface
- 3 serial (RS 232) optional / USB ports
- DCF77 receiver
- Modem (external standard V92 analogue modem) for remote emission control or maintenance, optional
- External hard drive, optional
- Up to 12 analogue outputs 0/4–20 mA / 100 Ohm (8 each per D-MS 500 No 51/50 board) (=>max. 16 components: 12 analogue outputs + 4 computing channels)
- Up to 24 digital relay inputs (15 each per D-MS 500 No51/50 board)
- Up to 24 digital relay outputs 24V/5VA (16 each per D-MS 285 No13 board)
- Up to 12 analogue outputs 0/4–20 mA/500 Ohm (8 D-MS 500 No16 board)

For data backup, the PC is equipped with a backup drive (e.g. external hard drive) and/or an Ethernet interface for data backup on another PC/network.

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 request of 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: gal1.de.

History of documents

Certification of D-EMS 2020 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. 0000054059_00: 13 April 2018
Expiry date of the certificate: 25 March 2023
Test report: 936/21226273/B dated 30 September 2017
TÜV Rheinland Energy GmbH
Publication: BAnz AT 26.03.2018 B8, chapter II number 1.1
UBA announcement dated 21 February 2018

Notifications

Statement issued by TÜV Rheinland Energy GmbH dated 23 January 2019
Test report: 936/2122627/3C dated 8 October 2018
Publication: BAnz AT 26.03.2019 B7, chapter IV notification 79
UBA announcement dated 27 February 2019
(Evaluation supplemented with rolling monthly average for refineries according to 13th BImSchV.)

Supplementary testing according to EN 15267

Certificate No. 0000054059_01: 5 November 2019
Expiry date of the certificate: 21 July 2024
Test report: 936/21226273/D dated 12 April 2019
TÜV Rheinland Energy GmbH
Publication: BAnz AT 22.07.2019 B8, chapter IV number 1.1
UBA announcement dated 28 June 2019

Notifications

Statement issued by TÜV Rheinland Energy GmbH dated 21 January 2020
Publication: BAnz AT 24.03.2020 B7, chapter IV notification 12
UBA announcement dated 24 February 2020
(Software changes)

Statement issued by TÜV Rheinland Energy GmbH dated 18 February 2021
Publication: BAnz AT 05.08.2021 B5, chapter IV notification 17
UBA announcement dated 29 June 2021
(Software changes)

Statement issued by TÜV Rheinland Energy GmbH dated 6 January 2022
Publication: BAnz AT 11.04.2022 B10, chapter VI notification 44
UBA announcement dated 9 March 2022
(Compliance with 13th BImSchV:2021)

Statement issued by TÜV Rheinland Energy GmbH dated 14 September 2022
Test report: 936/21255107/A dated 14 September 2022
Publication: BAnz AT 20.03.2023 B6, chapter IV notification 54
UBA announcement dated 21 February 2023
(Software changes and extension for digital data communication - OPC)

Statement issued by TÜV Rheinland Energy & Environment GmbH dated 15 December 2023
Publication: BAnz AT 10.05.2024 B7, chapter V notification 40
UBA announcement dated 19 March 2024
(Software changes)

Renewal of certificates

Certificate No. 0000054059_02: 3 July 2024
Expiry date of the certificate: 21 July 2029

Notifications

Statement issued by TÜV Rheinland Energy & Environment GmbH dated 4 October 2024
Publication: BAnz AT 19.05.2025 B3, chapter IV notification 2
UBA announcement dated 2 April 2025
(Software changes)

Supplementary testing according to EN 15267

Certificate No. 0000054059_03: 23 March 2026
Expiry date of the certificate: 22 March 2031
Test report: EuL/21264486/A dated 21 February 2025
TÜV Rheinland Energy & Environment GmbH
Publication: BAnz AT 31.10.2025 B5, chapter II number 1.2
UBA announcement dated 27 August 2025