

CERTIFICATE

on Product Conformity (QAL1)

Number of Certificate: 0000035008

Certified AMS: D-EMS 2000 AiO

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

Test Institute: TÜV Rheinland Energie und Umwelt GmbH

**This is to certify that the DAHS has been tested
and found to comply with:**

**Uniform Practice in monitoring emissions 2010,
Emissions data teletransmission (EFÜ) definition 2005,
Emissions data evaluation according to EN 14181; 2004,
VDI 4201-01:2010 and VDI 4201-02: 2010
EN 15267-1: 2009, EN 15267-2: 2009.**

Certification is awarded in respect of the conditions stated in this certificate
(also see the following pages).



- German Type Approval (Suitability Tested)
- QAL1 certified
- TUV approved
- Annual inspection

Publication in the German Federal Gazette
(BAnz.) of 02 March 2011

The certificate is valid until:
01 March 2017

Umweltbundesamt
Dessau, 16 March 2012

TÜV Rheinland Energie und Umwelt GmbH
Köln, 15 March 2012


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51105 Köln

Accreditation according to EN ISO/IEC 17025 and certified according to ISO 9001:2008.

Certificate:
0000035008 / 16 March 2012

Test report: 936/21217135/B of 14 October 2011
First certification: 02 March 2012
Validity ends: 01 March 2017
Publication: BAnz. 02 March 2012, No. 36, p. 920, chapter III, No. 1.3

Approved application

The certified data acquisition and handling system (DAHS) is suitable for continuous emissions data acquisition, evaluation and teletransmission at plants with continuous monitoring.

The suitability of the data acquisition system for this application was assessed on the basis of a laboratory test and a more than three months field test at a waste incinerator. Additionally a coal fired power plant was simulated.

The AMS is approved for a temperature range of +5 °C to +40 °C.

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

Basis of the certification

This certification is based on:

- Test report: 970550 of 29 February 2008
TÜV Industrie Service GmbH, TÜV Süd Gruppe, Abt. Umwelt-Service, 80686 München
- Test report 936/21217135/B dated 14. Oktober 2011
of TÜV Rheinland Energie und Umwelt GmbH
- suitability announced by the German Environmental Agency (UBA) as the relevant body
- the ongoing surveillance of the product and the manufacturing process
- publication in the German Federal Gazette
BAnz. 11 March 2009, No. 38, page 899, chapter III, No. 1.1
Announcement by UBA from 19 February 2009
BAnz. 02 March 2012, No. 36, page 920, chapter III, No. 1.3
Announcement by UBA from 23 February 2012

AMS name:

D-EMS 2000 AiO

Manufacturer:

DURAG data systems GmbH, Hamburg

Field of application:

Emission data acquisition, evaluation and remote transmission for plants with continuous monitoring

Measuring ranges during suitability test:

- Analog data transmission
- Digital data transmission via Profibus
- Emission remote data transmission

Software version:

Version 4.50

Restriction:

In order to protect the system in combination with the evaluation PC and Win-DEVA software from unauthorised access to saved data during continuous operation, access rights granted by the administrator of the PC operating system have to be restricted on file manager programs (such as Explorer).

Notes:

1. The physical limitations of data transmission via RS 232C/RS 485 or network connection shall be taken into account at the time of installation in combination with a system workstation and the Win-DEVA software.
2. Remote data transmission takes place in combination with a second PC with the D-EMS 2000 software.
3. Complementary testing (changes in software, digital interface for Profibus and Modbus) for notification of the Federal Environment Agency of 19 February 2009 (BAnz. p. 899, chapter III, No. 1.1) and 15 July 2011 (BAnz. p. 2725, chapter III, 6th notification).

Test report:

TÜV Rheinland Energie und Umwelt GmbH, Köln
Report No.: 936/21217135/B of 14 October 2011

Certificate:
0000035008 / 16 March 2012

Certified product

This certificate applies to systems confirming to the following description:

The data acquisition and handling system (DAHS) D-EMS 2000 AiO is an independently working emission calculator, which allows integration into the DURAG & Process Data Management System D-EMS 2000.

The compact system D-EMS 2000 AiO comprises a 19" 3 HE computer, including IO cards, monitor screen, keyboard and mouse. The connection to external Windows PCs equipped with the Win-DEVA visualisation software, external data saving modules, remote data transmission, and the standard system D-EMS 2000 via TCP/IP is optional. D-EMS 2000 AiO is a highly available system of the newest generation. It is equipped with a hard drive (CF), in which relevant data for the authorities of the last 6 years can be saved.

The analog signals change into digital signals via 12-bit analog-digital converters. The temporal resolution of the signals is 1/sec.

Data acquisition with D-MS 2000 AiO for analog signals and status signals

Potential-independent inputs serve for the data acquisition of current signals in the range of 0 - 20 mA. For the transformation of the input current into a measured voltage in the input circle a 100 Ω resistance is integrated. The measured voltages transform into a 12-bit data word via an analog-digital transformer each.

The status signals are collected by relays and passed on as digital signals.

Input card

12 Analog input units with 12-bit resolution, 0-20 mA, internal resistance of 100 Ω

Profibus interface

As profibus interface, the Profibus Master FNL DP of the company COMSOFT GmbH Karlsruhe is used. Revision: 02;SW/FW:2.19.34; HW:02.1, GSD: COMSOA4A.GSD, file version: 2011-09-29. Data transmission takes place according to the interface definition in compliance with VDI 4201 part 1 and part 2.

Evaluation of the data

Data evaluation runs on a CPU card with Linux-based microcomputer.

CPU card: 440, 512 MB RAM, internal features: 1 CF card and 1 SD card, DCF77 receiver, modem for remote servicing (Analog / ISDN), external hard disc, operating system: Linux

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 Energie und Umwelt GmbH must be notified at the given address 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 can be applied to the product or used in publicity material for the certified product is presented on page 1 of this certificate.

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

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

Certificate:
0000035008 / 16 March 2012

Certification of data acquisition and handling system (DAHS) D-EMS 2000 is based on the documents listed below and the regular, continuous monitoring of the Quality Management System of the manufacturer:

Requirements:

Uniform Practice in monitoring emissions; circular of the BMU dated 13.6.2005 - IG I 2 - 45053/5 and 04.8.2010 - IG I 2 - 51134/0.

Emissions data teletransmission (EFÜ) definition in the copy of the resolution of the LAI dated 28.09.2005 (corrected copy dated 15 November 2006).

Basic test:

Test report: 970550 of 29 February 2008
TÜV Industrie Service GmbH
TÜV Süd Gruppe, Abt. Umwelt-Service, 80686 München
Publication: BAnz. 11 March 2009, No. 38, page 899, chapter III No. 1.1
Announcement by UBA from 19 February 2009

Notification

- Statement of TÜV Süd Industrie Service GmbH, München, of 31 March 2009 about software changes
BAnz. 25 August 2009, No. 125, page 2929, chapter III, 21th notification
Announcement by UBA from 03 August 2009
- Statement of TÜV Rheinland Energie und Umwelt GmbH of 31 March 2011 about name change
BAnz. 29 July 2011, No. 133, page 2725, chapter III, 6th notification
Announcement by UBA from 15 July 2011

Initial certification according to EN 15267:

Certificate No. 0000035008: 16 March 2012
Validity of the certificate until: 01 March 2017
Test report: 936/21217135/B of 14 October 2011
TÜV Rheinland Energie und Umwelt GmbH
Publication: BAnz. 02 March 2012, No. 36, p. 920, chapter III, No. 1.3,
Announcement by UBA from 23 February 2012