

# CERTIFICATE

## of Product Conformity (QAL1)

Certificate No.: 0000040334\_01

**Evaluation device:** MEAC300

**Manufacturer:** SICK AG  
Nimburger Straße 11  
79276 Reute  
Germany

**Test Laboratory:** TÜV Rheinland Energy GmbH

**This is to certify that the data acquisition and handling system (DAHS)  
has been tested and found to comply with the standards:  
Uniform practice in monitoring emissions 2017\*  
and EFÜ interface definition 2017 (remote emission control)  
as well as EN 14181 (2014), EN 15267-1 (2009) and DIN EN 15267-2 (2009).**

Certification is awarded in respect of the conditions stated in this certificate  
(this certificate contains 7 pages).  
The present certificate replaces certificate 0000040334\_00 of 9 September 2014.



Suitability Tested  
EN 15267  
QAL1 Certified  
Regular Surveillance

www.tuv.com  
ID 0000040334

Publication in the German Federal Gazette  
(BAnz) of 22 July 2019

Expiry date:  
21 July 2024

Federal Environment Agency  
Dessau, 05 November 2019

TÜV Rheinland Energy GmbH  
Cologne, 04 November 2019

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Test institute accredited to EN ISO/IEC 17025:2005 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.

\*Uniform practice in monitoring emissions 2017  
- Circular of the FME 23.01.2017- IG I 2 -45053/5

<b>Test Report:</b>	936/21243486/B dated 28 February 2019
<b>Initial certification:</b>	05 August 2014
<b>Expiry date:</b>	21 July 2024
<b>Publication:</b>	BAnz AT 22.07.2019 B8, chapter IV number 1.2

### Approved application

The tested DAHS is suitable for emission data acquisition and evaluation of continuous emission measurements at continuously monitored plants. The system also allows for remote emission control.

This has been demonstrated by way of a performance test in the laboratory and a three-month field test at a municipal waste incinerator.

The data evaluation system is approved for an ambient temperature range of +5 °C to +40 °C.

The notification of suitability of the DAHS and performance testing have been effected on the basis of the regulations applicable at the time of performance testing. As changes in legal provisions are possible, any potential user should ensure that this DAHS is suitable for monitoring the measured values relevant to the application.

Any potential user should ensure, in consultation with the manufacturer, that this data evaluation system is suitable for the installation at which it will be installed.

### Basis of the certification

This certification is based on:

- Test report no. 936/21243486/B dated 28 February 2019 issued by TÜV Rheinland Energy 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 22.07.2019 B8, chapter IV number 1.2,  
UBA announcement dated 28 June 2019:

**Data acquisition and handling system:**

MEAC300

**Manufacturer:**

SICK AG, Hamburg

**Field of application:**

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

**Tested features during performance testing:**

- analogue data transmission
- digital data transmission in line with VDI standard 4201,  
parts 1 (general) and 3 (Modbus)
- remote emission control via modem and FTPS

**Software version:** 4.1.34.17

**Restrictions:**

At IP20 and IP21, the DAHS enclosure did not meet the requirement for the degree of protection during the performance test. The DAHS must be installed in an enclosure for evaluation systems which provides a sufficient degree of protection for the intended site of installation. This must be verified in the context of correct installation.

**Notes:**

1. The data acquisition and handling system comprises a system for the acquisition of analogue and status signals (DAE unit and Wago module, types: 750 - 400/1, 750 - 402/3, 750 - 465, 750 - 504, 750 - 552) and a PC operating the MEAC300 suite.
2. The DAHS comes with a digital Modbus interface (serial and TCP/IP) in accordance with VDI 4201, parts 1 (general) and 3 (Modbus).
3. Supplementary test (in accordance with BEP2017 and moving monthly average for refineries under the 13<sup>th</sup> BImSchV) as regards Federal Environment Agency notices of 12 February 2013 (BAnz AT 05.03.2013 B10, chapter III number 1.1) and of 3 July 2018 (BAnz AT 17.07.2018 B9, chapter III 3<sup>rd</sup> notification).

**Test Report:**

TÜV Rheinland Energy GmbH, Cologne  
Report no. 936/21243486/B dated 28 February 2019

**Certified product**

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

The MEAC300 system consists of:

- Data acquisition unit DAE or Wago modules
- Evaluation system with MEAC300 software

**Features of the data acquisition unit (DAE)**

DAEs are micro-processor controlled devices for data input. They can be installed decentral-ly and are used for the following tasks:

- Acquiring mA-input signals and averaging them over 5 seconds
- Logging of status input signals
- Transfer of the calculated analogue and status signals to the computer
- Intermediate storage of all input values in the case of a computer malfunction (Capacity e.g. 30 days for 16 analogue and 32 status inputs)

**Features of the data acquisition unit (Wago)**

Within the WAGO field bus node, it is possible to connect inputs and outputs to the evaluation system either directly (serially) or via an AS interface level, e.g. Ethernet or PROFIBUS,

- Number of I/O modules 99 with repeater
- Number of I/O points 6000 (depending on the master)

**Standard configuration of the emission evaluation system**

- MS Windows 7 or 10
- 4 GB RAM, hard drive 2x 1 TB hard drive
- DCF77 radio clock
- Interfaces: COM, USB, network, Video, SATA
- Monitor, keyboard, mouse, printer
- Analogue or ISDN modem for remote maintenance and remote emission control (EFÜ)
- USP unit (optional)

**Features of the MEAC300 PC**

- Acquisition of measurement signals
- A MEAC300 evaluation system can handle up to
  - 800 analogue inputs and 400 analogue outputs
  - 2000 status inputs and 1000 status outputs

**Characteristics of the MEAC300 software**

- Storage, processing, presentation of measurement data
- Information and integration of operational values
- Data output and remote transmission



**The evaluation system was against the following requirements:**

- Uniform practice in monitoring emissions (BEP):  
Circular of the Federal Ministry of Environment dated 23 January 2017 - IG I 2 -45053/5
- Remote emission control (EFÜ)/interface definition  
version amended by LAI decision of 28 September 2005, latest version of April 2017
- EN 14181:2014-11 (Stationary source emissions, quality assurance of automated measuring systems): Standard applies to the evaluation of data obtained from emission monitoring systems
- VDI guideline 4201, Performance criteria on automated measuring and electronic data evaluation systems for monitoring emissions –  
Part 1 – General requirements (2010)  
Part 3 – Specific requirements for Modbus (serial and TCP/IP) (2012)
- 13<sup>th</sup> BImSchV (Ordinance on Large Combustion Plants and Gas Turbine Plants) of 2 May 2013, amended 19 December 2017

**General remarks**

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 manufacturing process for the certified product. Both the product and the quality management system shall be subject to regular surveillance.

If a product of the current production does not conform to the certified product, TÜV Rheinland Energy 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 document as well as the certification mark remains property of TÜV Rheinland Energy GmbH. Upon revocation of the publication the certificate loses its validity. After the expiration of the certificate and on request of TÜV Rheinland Energy GmbH this document shall be returned and the certificate mark must no longer be used.

The relevant version of this certificate and its expiration date are also accessible on the internet at [qal1.de](http://qal1.de).

### **Document history**

Certification of the MEAC300 data acquisition and handling system is based on the documents listed below and the regular, continuous surveillance of the manufacturer's quality management system:

### **Basic testing**

Test report: 628172 of 23 December 2005  
TÜV SÜD Industrie Service GmbH, Munich  
Publication: BAnz. 8 April 2006, No. 70, p. 2653, chapter III number 1.5  
UBA announcement dated 21 February 2006

### **Supplementary testing**

Test report: 1724510 of 09 January 2013  
TÜV SÜD Industrie Service GmbH, Munich  
Publication: BAnz AT 05.03.2013 B10, chapter III number 1.1  
UBA announcement dated 12 February 2013  
(New software version)

### **Notifications**

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 25 March 2013  
Publication: BAnz AT 23.07.2013 B4, chapter IV notification 12 [no. 16]  
UBA announcement dated 03 July 2013  
(Change of company name)

Statement issued by TÜV Süd Industrie Service GmbH dated 30 September 2013  
Publication: BAnz AT 01.04.2014 B12, chapter VI notification 5  
UBA announcement dated 27 February 2014  
(New software version)

### **Initial certification according to EN 15267:**

Certificate no. 0000040334\_00: 09 September 2014  
Expiry date of the certificate: 04 August 2019  
Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 03 April 2014  
Test report: 1724510 of 09 January 2013, TÜV SÜD Industrie Service GmbH, Munich  
Publication: BAnz AT 05.08.2014 B11, chapter V notification 28  
UBA announcement dated 17 July 2014

### **Notifications in accordance with EN 15267**

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 24 March 2015  
Publication: BAnz AT 26.08.2015 B4, chapter V notification 1  
UBA announcement dated 22 July 2015  
(New software version)

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 14 October 2015  
Publication: BAnz AT 14.03.2016 B7, chapter V notification 19  
UBA announcement dated 18 February 2016  
(New software version)

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 06 February 2016  
Publication: BAnz AT 01.08.2016 B11, chapter V notification 2  
UBA announcement dated 14 July 2016  
(New software version)

Statement issued by TÜV Rheinland Energy GmbH dated 06 December 2017  
Publication: BAnz AT 26.03.2018 B8, chapter V notification 2  
UBA announcement dated 21 February 2018  
(New software version)



Statement issued by TÜV Rheinland Energy GmbH dated 02 May 2018  
Publication: BAnz AT 17.07.2018 B9, chapter III notification 3  
UBA announcement dated 03 July 2018  
(New software version)

**Supplementary testing according to EN 15267**

Certificate no. 0000040334\_01: 05 November 2019  
Expiry date of the certificate: 21 July 2024  
Test report 936/21243486/B dated 28 February 2019  
TÜV Rheinland Energy GmbH, Cologne  
Publication: BAnz AT 22.07.2019 B8, chapter IV number 1.2  
UBA announcement dated 28 June 2019