Umwelt Bundesamt

TÜVRheinland®
Precisely Right.

CERTIFICATE

of Product Conformity (QAL1)

Certificate No.: 0000035011_02

Evaluation device:	UmweltOffice/TALAS
Manufacturer:	Siempelkamp NIS Ingenieurgesellschaft mbH Industriestraße 13 63755 Alzenau 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 8 pages).
The present certificate replaces certificate 0000035011_01 of 28 February 2017.

TÜVRheinland® CERTIFIED

Suitability Tested
EN 15267
QAL1 Certified
Regular Surveillance

www.tuv.com
ID 0000035011

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

Expiry date:
21 July 2024

Federal Environment Agency
Dessau, 05 November 2019

Dr. Marcel Langner
Head of Section II 4.1

TÜV Rheinland Energy GmbH
Cologne, 04 November 2019

ppa. Dr. Peter Wilbring

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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

10/221 2.08

Test Report:	936/21242054/B dated 01 March 2019
Initial certification:	02 March 2012
Expiry date:	21 July 2024
Publication:	BAnz AT 22.07.2019 B8, chapter IV number 1.3

Approved application
The tested DAHS is suitable for emission data acquisition, evaluation and remote emission control at continuously monitored plants.

This has been demonstrated by way of a performance test in the laboratory and a long-term test at a plant within the scope of the 13th BImSchV lasting for three months. In parallel, simulations for additional plants under the TA Luft, the 17th, 27th and 30th BImSchV have been carried out.

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

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 936/21242054/B dated 01 March 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 1.3
UBA announcement dated 28 June 2019:

Data acquisition and handling system:
UmweltOffice/TALAS

Manufacturer:
Siempelkamp NIS Ingenieurgesellschaft mbH, Alzenau

Field of application:
Data acquisition, evaluation and remote emission control at continuously monitored plants

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 versions:
Data evaluation and parameterisation

UmweltOffice:	7.3.1
Oracle data base:	11.2, 11.2 Express or 12.2

Data acquisition:

TALAS/net:	5.3 (000)
TALAS/7	7.3 (001)

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 emission data acquisition and evaluation consists of two parts: the front end system for recording analogous and digital status signal and a PC on which the programme suite UmweltOffice is installed. The following TALAS/net and Talas/7 IO modules are available as frontend systems: IO8/AI, IO8/DI, IO8/AIDI, IO4/AI, IO4/DI, IO4/AIDI, IO4/DIDO.
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. The TALAS/7 programme can optionally run on a TALAS/7 IOC controller, a TALAS/7 LPM controller as hat rail module or an additional PC to receive data.
4. The programme is also offered as small edition “UmweltOffice sE” with 12 analogue inputs and without remote emission control.
5. Supplementary test (adaptation to BEP2017 and moving monthly average for refineries under the 13th BImSchV) as regards Federal Environment notices of 23 February 2012 (BAnz. S. 920, chapter III number 1.1) and of 3 July 2018 (BAnz AT 17.07.2018 B9, chapter III 2nd notification).

Test Report:
TÜV Rheinland Energy GmbH, Cologne
Report no. 936/21242054/B dated 1 March 2019

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

The evaluation system consists of the UmweltOffice programme suite and various frontend systems to ensure the acquisition of analogue operational status signals.

The following systems are available for the acquisition of analogue operational status signals:

- TALAS/net
- TALAS/7 IO modules

TALAS/net

A 12bit analogue to digital converter converts analogue to digital signals. Analogue signals are scanned at a rate of 100/sec.

TALAS/7 IO modules

The TALAS/7 IO modules operate at a scan rate of 40/sec and have a 16bit analogue to digital converter.

TALAS/7

The TALAS/7 programme receives data from the input modules which it then averages and converts in accordance with the calibration function, then standardises and validates measured values and communicates short-term averages to the UmweltOffice. Moreover, raw data is transferred as 5sec-averages for the purpose of documenting data. The TALAS/7 programme can operate on the same PC as the UmweltOffice, on a separate PC or on the TALAS/7 IOC Controller.

The PC operating the UmweltOffice downstream of the data recording unit receives data for the purpose of storing and processing them. The computer classifies and evaluates data in accordance with the applicable provisions and generates the required messages and protocols.

The PC operating UmweltOffice is able to receive and process data from several data recording units. For this purpose, clusters are set up in the programme for each and assigned to a data acquisition unit. Data evaluation can thus be performed for each cluster individually or for several clusters combined. This also applies to remote emission control.

The **TALAS/net** is equipped as follows:

- Analogue input chip with 7 analogue inputs
  (up to 3 optional A/D chips)
- Two chips with 12 digital inputs (up to 4 optional additional digital chips)
- up to 2 optional analogue output chips with 4 outputs each
- up to 2 optional digital output chips with 7 outputs each
- Processor: Motorola MC68EN302 25 MHz
- Multi-user, multi-tasking real-time OS-9/68K operation system
- 1 MByte static RAM
- 1.5 Mbyte programme memory divided into:
- 8 Mbyte Flash-EPROM as data memory (not volatile)
- up to 16 Mbyte dynamic RAM
- internal temperature control
- programmable watchdog
- Ethernet interface
- Serial interface

The **TALAS/7** IO modules are available in the following versions:

Module	AI	DI	AO	DO
TALAS/7 – IO8/AI	28	1		1
TALAS/7 – IO8/DI		29		1
TALAS/7 – IO8/AIDI	14	15		1
TALAS/7 – IO8/AO		1	14	1
TALAS/7 – IO4/AI	12	1		1
TALAS/7 – IO4/DI		13		1
TALAS/7 – IO4/AIDI	6	7		1
TALAS/7 – IO4/DIDO		7		7
TALAS/7 – IO4/AO		1	6	1
TALAS/7 – IO4/DO		1		13

AI = analogue input; DI = digital input, AO = analogue output, DO = digital output

Analogue inputs

Resolution:	0.763 µA (15 Bit)
Scan rate:	~ 25 ms
Measured range:	0 … > 24 mA
Load:	50 Ohm

Protected against polarity reversal, galvanic isolation between pins and from the module

Digital inputs

External voltages:	12 … 230 V AC/DC
Potential-free contacts:	require a 24V power supply
Internal resistance:	> 50 kOhm
Scan rate:	~ 2 ms

Protected against polarity reversal, galvanic isolation between pins and from the module

The computer downstream operating UmweltOffice is an industrial PC with the following minimum configuration:

- Intel Dual Core 2 or equivalent processor
- 2 GB for 32bit Windows 7 or 4 GB for 64bit Windows 7/Server 2008
- 2 hard drives > 500 GB
- Ethernet interface for TALAS/net and TALAS/7 IO modules
- Serial (RS 232)/USB interface for modem
- Parallel interface/USB interface for printer
- Windows 7 or Windows Server 2008 operating system
- DCF77 receiver
- External modem
- CD/DVD ROM (optional writer)

For backup purposes, the PC has been equipped with a second hard drive for data mirroring, a backup drive (e.g. CD writer) and/or an Ethernet interface to backup data on a separate PC. A printer can be connected to the PC. It prints daily protocols, messages and excessive limit values.

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)
- 13th 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**.

Document history

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

Initial certification according to EN 15267

Certificate no. 0000035011: 16 March 2012
Expiry date of the certificate: 01 March 2017
verification report 936/21216122/A dated 19 October 2011
TÜV Rheinland Energie und Umwelt GmbH, Cologne
Publication: BAnz. 2 March 2012, No. 36, p. 920, chapter III number 1.1
UBA announcement dated 23 February 2012

Notifications in accordance with EN 15267

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 14 February 2013
Publication: BAnz AT 23.07.2013 B4, chapter V notification 9
UBA announcement dated 03 July 2013
(New software version)

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 14 February 2014
Publication: BAnz AT 05.08.2014 B11, chapter V notification 29
UBA announcement dated 17 July 2014
(New software version)

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 8 December 2014
Publication: BAnz AT 26.08.2015 B4, chapter V notification 2
UBA announcement dated 22 July 2015
(New software version)

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 15 October 2015
Publication: BAnz AT 14.03.2016 B7, chapter V notification 20
UBA announcement dated 18 February 2016
(New software version)

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 18 January 2016
Publication: BAnz AT 01.08.2016 B11, chapter IV correction 1
UBA announcement dated 14 July 2016
(Manufacturer changed name)

Renewal of the certificate in accordance with EN 15267

Certificate no. 0000035011_01: 28 February 2017
Expiry date of the certificate: 01 March 2022

Notifications in accordance with EN 15267

Statement issued by TÜV Rheinland Energie und Umwelt GmbH dated 12 October 2016
Publication: BAnz AT 15.03.2017 B6, chapter V notification 15
UBA announcement dated 22 February 2017
(New software version)

Statement issued by TÜV Rheinland Energy GmbH dated 08 March 2017
Publication: BAnz AT 31.07.2017 B12, chapter II notification 2
UBA announcement dated 13 July 2017
(New software version)

Statement issued by TÜV Rheinland Energy GmbH dated 02 May 2018
Publication: BAnz AT 17.07.2018 B9, chapter III notification 2
UBA announcement dated 03 July 2018
(New software version)

Supplementary testing according to EN 15267

Certificate no. 0000035011_02: 05 November 2019
Expiry date of the certificate: 21 July 2024
Test report 936/21242054/B dated 01 March 2019
TÜV Rheinland Energy GmbH, Cologne
Publication: BAnz AT 22.07.2019 B8, chapter IV number 1.3
UBA announcement dated 28 June 2019