Umwelt Bundesamt

TÜVRheinland®
Precisely Right.

CERTIFICATE

of Product Conformity (QAL1)

Certificate No.: 0000090023_00

Certified AMS:	S24N24V + OXYBOX'AIR for O_2
Manufacturer:	SETNAG 22-26 Rue John Maynard Keynes 13013 Marseille France
Test Institute:	TÜV Rheinland Energy & Environment GmbH

This is to certify that the AMS has been tested and found to comply with the standards EN 15267-1 (2009), EN 15267-2 (2023), EN 15267-3 (2023) and EN 14181 (2014).

Certification is awarded in respect of the conditions stated in this certificate (this certificate contains 6 pages).

TÜVRheinland® CERTIFIED

Suitability Tested
EN 15267
QAL1 Certified
Regular Surveillance

www.tuv.com
ID 0000090023

Publication in the German Federal Gazette (BAnz) of 10 July 2026

This certificate will expire on: 9 July 2031

German Environment Agency
Dessau, 17 September 2026

TÜV Rheinland Energy & Environment GmbH
Cologne, 15 September 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.

Test report:	EuL/21263632/B dated 24 October 2025
Initial certification:	10 July 2026
Expiry date:	9 July 2031
Publication:	BAnz AT 10.07.2026 B5, chapter II Number 1.2

Approved application

The tested AMS is suitable for use at plants according to Directive 2010/75/EU, chapter III (combustion plants / 13th BImSchV:2021), Directive 2010/75/EU, chapter IV (waste incineration plants / 17th BImSchV:2024), 30th BImSchV:2019, TA Luft:2021, Directive 2015/2193/EU (44th BImSchV:2022) and the 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 four-month field test at a waste incineration plant.

The AMS is approved for an ambient temperature range of +5 °C to +40 °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 and oxygen concentration relevant to the application.

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

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 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 certification

This certification is based on:

- Test report EuL/21263632/B dated 24 October 2025 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 10.07.2026 B5, chapter II No. 1.2, UBA announcement dated 18 May 2026:

AMS designation:
S24N24V + OXYBOX'AIR for O_2

Manufacturer:
SETNAG, Marseille, France

Field of application:
For installations requiring approval under the 13th BImSchV, the 17th BImSchV, the 30th BImSchV, the TA Luft as well as installations under the 27th BImSchV and the 44th BImSchV

Measuring ranges during the performance test:

Component	Certification range	Supplementary range	Unit
O_2	0 – 25	0 – 10	Vol.%

Software version:
V1

Restriction:
None

Notes:
1. The maintenance interval is four weeks.
2. The measuring system determines the gas concentration in wet flue gas.
3. The measurement system is operated and controlled using the OxyboxAir EXPERT, which runs on a Windows PC that is an integral part of the measuring system.
4. The IP54 protection rating of the measuring system means it can only be installed in locations protected from precipitation.

Test Report:
TÜV Rheinland Energy & Environment GmbH, Cologne
Report No.: EuL/21263632/B dated 24 October 2025

Certified product

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

The certified S24N24V + OXYBOX'AIR measurement system comprises an O_2 analyser designed for the continuous monitoring of oxygen concentration in flue gases. The measuring principle is based on a MicroPoas zirconium dioxide sensor element with an internal metallic reference.

Zirconium dioxide (ZrO_2) is a solid electrolyte that becomes conductive to oxygen ions at high temperatures. In the sensor's design, the electrolyte separates two electrodes that are in contact with gases of different oxygen partial pressures. This generates an electrochemical voltage that can be described according to the Nernst equation, depending on the ratio of the measured oxygen partial pressure to the reference partial pressure. This electrochemical measuring principle enables the continuous determination of the oxygen concentration in the exhaust gas.

The S24N24V sensor operates with an internal metallic reference sealed within the sensor. Together with a type S thermocouple, the sensor is embedded in an aluminium oxide tube to achieve greater mechanical strength. It is mounted on the measurement port via a mounting flange welded to the head.

An external computer must be connected to adjust the zero and reference points. Connection is via the USB port of the OXYBOX'AIR transmitter. The software allows, in particular, the measurement range to be configured, alarms and their limit values to be set, and the zero and reference points to be adjusted. In addition, the software enables the display of parameters such as measured value, furnace temperature, ambient temperature, voltage of the MicroPoas element and air pressure.

The certified measurement system comprises the following components in particular:

- O_2 analyser: S24N24V
- Control unit in electrical cabinet NSYS3D4420T
- Power supply unit
- S24N24V sensor with heating furnace (MicroPoas measuring element)
- Flow meter with alarm
- Transmitter: Oxybox'Air
- Ejector pump
- Pressure gauge
- Digital display
- USB port for an external device to run the software
- Maintenance switch
- Electrically heated sampling lines: M&C Type 4M4/6-S/FR PTFE 180 °C
- Gas sampling probe from M&C, Type SP2000-H/R
- Standard Windows-PC

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. Upon 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 no longer be used.

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

Document history

Certification of the S24N24V + OXYBOX'AIR measuring 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. 0000090023_00: 17 September 2026
Expiry date of the certificate: 9 July 2031
Test report: EuL/21263632/B dated 24 October 2025
TÜV Rheinland Energy & Environment GmbH
Publication: BAnz AT 10.07.2026 B5, chapter II number 1.2
UBA announcement dated 18 May 2026

Umwelt Bundesamt

Certificate:
0000090023_00 / 17 September 2026

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Calculation of overall uncertainty according to EN 14181 and EN 15267-3

Measuring system			
Manufacturer	SETNAG		
AMS designation	S24N24V + OXYBOX'AIR		
Serial number of units under test	590/591		
Measuring principle	Zirkoniumdioxid		
Test report	EuL/21263632/B		
Test laboratory	TÜV Rheinland		
Measured component			
Certification range	0 - 25	Vol.-%	
Evaluation of the cross-sensitivity (CS)			
(system with largest CS)			
Sum of positive CS at zero point	0,00	Vol.-%	
Sum of negative CS at zero point	0,00	Vol.-%	
Sum of postive CS at span point	0,00	Vol.-%	
Sum of negative CS at span point	-0,03	Vol.-%	
Maximum sum of cross-sensitivities	-0,03	Vol.-%	
Uncertainty of cross-sensitivity	u_i -0,019	Vol.-%	

Calculation of the combined standard uncertainty

Tested parameter			u^2	
	u_D	0,053 Vol.-%	0,003	(Vol.-%)²
Lack of fit	u_{lof}	0,058 Vol.-%	0,003	(Vol.-%)²
Zero drift from field test	$u_{d,z}$	-0,064 Vol.-%	0,004	(Vol.-%)²
Span drift from field test	$u_{d,s}$	0,115 Vol.-%	0,013	(Vol.-%)²
Influence of ambient temperature at span	u_t	0,036 Vol.-%	0,001	(Vol.-%)²
Influence of supply voltage	u_v	0,061 Vol.-%	0,004	(Vol.-%)²
Cross-sensitivity (interference)	u_i	-0,019 Vol.-%	0,000	(Vol.-%)²
Influence of sample gas flow	u_b	-0,046 Vol.-%	0,002	(Vol.-%)²
Uncertainty of reference material at 70% of certification range	u_{rm}	0,202 Vol.-%	0,041	(Vol.-%)²

* The larger value is used :
"Repeatability standard deviation at set point" or
"Standard deviation from paired measurements under field conditions"

Combined standard uncertainty (u_C)	$u_c = \sqrt{\sum (u_{max,j})^2}$	0,27	Vol.-%
Total expanded uncertainty	$U = u_c * k = u_c * 1.96$	0,53	Vol.-%

Relative total expanded uncertainty	**U in % of the range 25 Vol.-%**	**2,1**
Requirement of 2010/75/EU	**U in % of the range 25 Vol.-%**	**10,0 ****
Requirement of EN 15267-3	U in % of the range 25 Vol.-%	7,5

** The EU-directive 2010/75/EC on industrial emissions does not define requirements for this component.
A value of 10,0 % was used instead.