



Certificate number: 3684788-ts



Industrie Service

# CERTIFICATE

of product conformity (QAL 1)

Certificate number: 3684788-ts

<b>Certified AMS</b>	Dust Monitor S304QAL-D for dust
<b>Manufacturer</b>	Sintrol Oy Ruosilantie 15 00390 Helsinki Finland

**Test institute** TÜV SÜD Industrie Service GmbH

**This is to certify that the AMS has been tested and found to comply with the standards  
DIN EN 15267-1 (2009), DIN EN 15267-2 (2023), DIN EN 15859 (2010) and  
DIN EN 14181 (2015).**

**Certification applies to the conditions listed in this certificate  
(the certificate consists of 5 pages).**



Certificate No.: 3684788-ts

**Publication in the German Federal Gazette  
(BAnz) of 31 October 2024**

**This certificate will expire on:  
30 October 2029**

Umweltbundesamt  
Dessau, 19 November 2024

TÜV SÜD Industrie Service GmbH  
Testing laboratory emission measurement/  
calibration  
Munich, 18 November 2024

Dr. Marcel Langner  
Head of Section II 4

Hans-Jörg Eisenberger

Certificate number: 3684788-ts

<b>Test report</b>	3684788_V2 from 29 February 2024
<b>Initial certification</b>	31 October 2024
<b>Certification validity until</b>	30 October 2029 (5 years)
<b>Publication</b>	BAnz AT 31 October 2024 B9, chapter I, no 1.1

### Approved application

The tested AMS is suitable as dust monitor for filter control behind dust separators at plants requiring authorisation in compliance with the 13th BImSchV:2021, the 17th BImSchV:2021 and the 30th BImSchV:2019 and TA-Luft:2021 plants in accordance with the 27th BImSchV:2013 and the 44th BImSchV:2021. The suitability for this application was assessed on the basis of a laboratory test and a field test of the AMS Dust Monitor S304QAL-D lasting over more than eight months at an ancillary plant of a plant according to Directive 2010/75/EU, chapter IV (17th BImSchV). The measuring system is approved for ambient temperatures between -20 °C bis +50 °C.

The AMS publication, the suitability test and the performance of the uncertainty calculations were conducted based on the provisions valid at the time of testing. Due to possible amendments to legal foundations, every user should ensure before use of the AMS that it is suitable for monitoring the applicable values.

The operator should consult the manufacturer to ensure that the AMS is suitable for the plant at which it is to be installed.

### Note:

The legal regulations mentioned do not always have to correspond to the current state of legislation. Each user should ensure, if necessary in consultation with the competent authority, that this AMS fulfils the legal requirements for the intended use. Furthermore, it cannot be ruled out that legal regulations on the use of a measuring system for emission monitoring may change during the term of the certificate.

### Certification basis

This certificate is based on:

- TÜV SÜD Industrie Service GmbH test report 3684788\_V2 from 29 February 2024
- Suitability announcement by the German Federal Environmental Agency as relevant body
- The ongoing surveillance of the product and the manufacturing process

- Publication in the German Federal Gazette (BAnz AT 31.10.2024 B9, chapter I, no. 1.1, UBA announcement from 21 August 2024)

**AMS:** Dust Monitor S304QAL-D

**Manufacturer:** Sintrol Oy  
Helsinki, Finland

**Suitability:** Dust monitor for filter control behind dust separators at plants requiring authorization in compliance with the 13th BImSchV, the 17th BImSchV, the 30th BImSchV and TA-Luft and at plants of the 27th BImSchV and the 44th BImSchV

**Measurement ranges in the suitability test:**

Component	Certification range	Supplementary measurement ranges		Unit
Dust	0 – 7,5	0 – 15	0 – 100	mg/m <sup>3</sup>

**Software version:**

Dust monitor S304QAL-D: 3.2.4

**Restrictions:**

1. Use in steam saturated flue gases is not possible. Droplet emissions also influence the measured dust concentration.
2. Use directly after electric filters is not possible.
3. Use is possible for flue gas flow rates in the range from 3 – 40 m/s

**Notes:**

1. The maintenance interval is four months.
2. The AMS can only be aligned using the automatic alignment function at zero and span point.
3. At a flue gas flow rate in the 3 – 40 m/s range the dependence of the flue gas flow rate is eliminated by the integrated flow rate compensation. To this end the analogue input 4 – 20 mA shall be covered with a signal to represent the flue gas flow rate. If flow rate compensation is activated the parallel measurements of the QAL2 tests must be carried out at different flue gas flow rates.
4. At constant flue gas flow rates ( $\pm 10\%$  of the average flow rate) a fixed value can also be entered for the flue gas flow rate.
5. When using a purge air feature, adherence to the stipulated purge air amount must be checked.
6. The AMS must be operated at an interval of 24 h for the automatic control cycle.
7. The manufacturer's recommendations on probe lengths must be followed. Probe lengths from 250 mm to 1750 mm can be used.
8. The power supply can be 230 V AC or 24 V DC.
9. The AMS has a digital Modbus interface (serial RS 485), corresponding to VDI 4201 part 1 and 3.

**Test report:**

TÜV SÜD Industrie Service GmbH, Munich  
Report no.: 3684788\_V2 from 29 February 2024

### Certified Product

The certificate applies to AMS that comply with the following description:

The entire tested measuring system Dust Monitor S304QAL-D consists of the probe, the probe extension, the purge air adapter and the electronic unit attached to the probe.

The AMS Dust Monitor S304QAL-D is used to detect the dust mass concentration behind dust separators in flue and process gases. The measuring system works according to the principle of the triboelectric effect, in which an insulated probe is electrically charged by dust particles that hit it or flow past it in the vicinity, and this charge is detected. The measuring system also has a digital interface of the Modbus type, which is implemented serially as EIA-485.

The entire AMS consist of the following components:

#### Entire system

Manufacturer:	Sintrol Oy
Type:	Dust Monitor S304QAL-D
Software:	3.2.4
Measurement principle:	triboelectric effect

#### Accessories:

- Welded adapter MC900229
- Blind cap MC900033
- Tri-Clamp damp MC900034
- Tri-Clamp Teflon seal MC900007
- Purge air dapter MC900203
- Probe extension 250, 500 mm (maximum length 1750 mm)

#### Optional accessories:

- User software Dust Tool
- Interface adapter RS 485 USB EC900041

### General notes

This certificate is based on the analyser tested. The manufacturer is responsible for the continuous compliance of the production to the DIN EN 15267 requirements. The manufacturer is required to maintain an approved quality management system to control the manufacture of the certified product. Regular monitoring must be conducted on both the product and the quality management systems.

If the product from the current production series no longer comply with the certified product, the Environmental Service Department of TÜV SÜD Industrie Service GmbH must be informed (address see footnote).

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 on the product or used in publicity material for the certified product.

This document and the certification mark shall remain the property of TÜV SÜD Industrie Service GmbH.

Should the publication be revoked, this certificate will become invalid. This document must be returned when the period of validity has elapsed and at the request of TÜV SÜD Industrie Service GmbH and the certification mark may no longer be used.

The current version of the certificate and its expiration is also accessible on the internet at **qal1.de**.

The certification of the Dust Monitor S304QAL-D measuring system is based on the following documents and the regular continuous monitoring of the manufacturer's quality management system:

#### **Initial certification in accordance with DIN EN 15267 and DIN EN 15859:**

Certificate no. 3684788-ts	31 October 2024
Certificate validity until	30 October 2029 (5 years)

Report no.: 3684788\_V2 from 29 February 2024,  
TÜV SÜD Industrie Service GmbH  
Publication: BAnz AT 31.10.2024 B9, chapter I no. 1.1  
UBA announcement from 21 August 2024