Umwelt Bundesamt

TÜVRheinland®
Precisely Right.

CERTIFICATE

of Product Conformity (QAL1)

Certificate No.: 0000089101_00

Certified sampling system:	PNS for particulate matter PM_{10} or $PM_{2.5}$
Manufacturer:	Comde-Derenda GmbH Kieler Straße 9 14532 Stahnsdorf Germany
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 12341 (2023), EN 15267-1 (2009) and EN 15267-2 (2023).

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

TÜVRheinland® CERTIFIED

Suitability Tested
Complying with 2008/50/EC
EN 15267
Regular Surveillance
www.tuv.com
ID 0000089101

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

Dr. Marcel Langner
Head of Section II 4

TÜV Rheinland Energy & Environment GmbH
Cologne, 15 September 2026

Dipl.-Ing. G. Baum

www.umwelt-tuv.eu qal1-info@tuv.com Tel. + 49 221 806-5200	TÜV Rheinland Energy & Environment GmbH Am Grauen Stein 51105 Köln

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/21265113/A dated 01 October 2025
Initial certification:	10 July 2026
Expiry date:	9 July 2031
Publication:	BAnz AT 10.07.2026 B5, chapter IV number 4.1

Approved application

The tested sampling device is suitable for continuous sampling of PM_{10} or $PM_{2.5}$ for subsequent gravimetric determination.

The suitability for these applications was tested on the basis of a laboratory test and a one-month continuous field test.

The sampling device is approved for the ambient temperature range of -20 ° to +50 °C.

The notification of suitability of the sampling device and performance testing has 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 sampling device is suitable for monitoring the measured values relevant to the application.

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

Basis of the certification

This certification is based on:

- Test report EuL/21265113/A dated 1 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 IV Number 4.1, UBA announcement dated 18 May 2026:

AMS designation:
PNS for particulate matter $PM_{2.5}$ or PM_{10}

Manufacturer:
Comde-Derenda GmbH, Stahnsdorf, Germany

Field of application:
Sampling device for the gravimetric determination of particulate matter $PM_{2.5}$ or PM_{10} in accordance with standard DIN EN 12341 (2023)

Software version:
2.61.001

Restrictions:
None

Notes:

1. The test covers the device versions PNS T-DM (tower version), PNS DMC (rack version) and PNS DM (split version).
2. The PNS T-DM and PNS-DM device versions can be used either with a small pump (4 m³/h, Type VT4.4, manufacturer Becker), a medium-sized pump (6 m³/h, Type VTE6, manufacturer Thomas Gardner Denver) or a large pump (8 m³/h, Type VT4.8, manufacturer Becker), as well as with a Peltier cooling unit (Variant 50 (small) or Variant 100 (large)).
3. The PNS DMC unit version can be equipped with either a small pump (4 m³/h, type VT4.4, manufacturer Becker), a medium-sized pump (6 m³/h, type VTE6, manufacturer Thomas Gardner Denver) or a large pump (8 m³/h, type VT4.8, manufacturer Becker).
4. With the exception of the test for the PNS DMC unit version, the test was carried out with active cooling of the filter magazine for the loaded filters.
5. The test report is available online at www.qal1.de.

Test Report: TÜV Rheinland Energy & Environment GmbH, Cologne
Report No.: EuL/21265113/A dated 1 October 2025

Certified product

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

The PNS sampling device is an automatic, sequential low-volume sampler designed for dust sampling on membrane or fibre filters. The system includes a sampling line and can be operated with either a PM_{10} sampling inlet or a $PM_{2.5}$ sampling inlet. Ambient air is drawn in via the respective sampling inlet for PM_{10} or $PM_{2.5}$ using a pump. The dust-laden air is then separated by a filter. After sampling, the dust collected on the filters is determined by external gravimetric weighing in accordance with EN 12341. In addition, the filters can be used for further analytical procedures such as the detection of heavy metals.

The PNS sampling device is available in the following configurations:

- PNS T-DM (Tower version, all components in a single housing, suitable for indoor and outdoor installation)
- PNS DMC (Rack version, all components in a single housing, suitable for indoor installation in a 19-inch rack)
- PNS DM (Split version, combination of small filter unit (LVS or MVS) and filter changer AFC-DM, suitable for indoor and outdoor installation)

Furthermore, the PNS T-DM and PNS DM models can be equipped with either a small pump (4 m³/h, Type VT4.4, manufacturer Becker), a medium-sized pump (6 m³/h, Type VTE6, manufacturer Thomas Gardner Denver) or a large pump (8 m³/h, Type VT4.8, manufacturer Becker), as well as with a Peltier cooling unit (Variant 50 (small) or Variant 100 (large)). The PNS DMC version can also be equipped with either a small pump (4 m³/h, type VT4.4, manufacturer Becker), a medium-sized pump (6 m³/h, type VTE6, manufacturer Thomas Gardner Denver) or a large pump (8 m³/h, type VT4.8, manufacturer Becker).

Technical data and operating parameters (manufacturer's specifications)

	PNS T-DM	PNS DMC	PNS DM
	(Tower-Version)	(Rack-Version)	(Split-Version)
Sampling unit			
Dimensions in mm	510 x 330 x 1100	483 x 361 x 510	300 x 250 x 450 (LVS/MVS) 440 x 340 x 760 (AFC-DM)
Weight in kg	52 - 59	25.5 – 27.5	31 kg – 33
Sampling pump	4 m³/h, Typ VT4.4, manufacturer Becker,		
	6 m³/h, Typ VTE6, manufacturer Thomas Gardner Denver,		
	8 m³/h, Typ VT4.8, manufacturer Becker		
Sampling tube	up to 3000 mm (800 mm during the test)		
Sampling head	SH 10-47 (PM_{10})		
	SH 2.5-47 ($PM_{2.5}$)		
Power supply	230 VAC at 50/60 Hz		
Power consumption	300 – 470 W	240 – 300 W	240 – 300 W
Installation conditions			
Temperature	-20 to +50 °C		
Humidity	0 - 100% rH		
Sampling line	1		
Sample flow rate	2.3 m³/h = 38.33 l/min constant		
Sampling tube	Aluminium, anodised and internally polished		
Filter management			
Filter type	Flat filter, d = 47 mm		
Filter holde	POM		
Filter capacity	18, 24 oder 29		
Conditioning of filters after sampling	Optional	Not available	Optional
Cooling unit	Variante 50 (small) Variante 100 (large)		Variante 50 (small) Variante 100 (large)
Data logging			
Interval	15 min – 59 h 59 min (15 min during the test)		
Operating parameters	Flow rate (m³/h i.B. and m³/h i.N.)		
	Volume (m³ i.B. and m³ I.N.)		
	Critical nozzle temperature		
	Outside temperature		
	Relative humidity		
	Ambient pressure		
	Filter differential pressure		
	Filter temperature		
	Filter housing temperature		
	Error code		
Interfaces	RS232, SD card,		
	Optional LTE Modem		

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 PNS 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. 0000089101_00: 17 September 2026
Expiry date of the certificate: 9 July 2031
Test report: EuL/21265113/A dated 1 October 2025
TÜV Rheinland Energy & Environment GmbH
Publication: BAnz AT 10.07.2026 B5, chapter IV number 4.1
UBA announcement dated 18 May 2026