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CONFIRMATION

of Product Conformity (QAL1)

Sampling device:	Giano / Gemini for suspended particulate matter PM_{10} and $PM_{2,5}$
Manufacturer:	Dado Lab srl. Via Pellizza das Volpedo 101A 20092 Cinisello B. (MI) Italy
Test Institute::	TÜV Rheinland Energy & Environment GmbH

This is to certify that the AMS has been tested
according to the standards
EN 12341 (2023) as well as EN 15267-1 (2009) and EN 15267-2 (2023).

The sampling device underwent independent expert testing and was accepted.
This confirmation is valid up to the publication of the certificate,
but no longer than 6 months from the date of issue
(this document contains 5 pages).

This confirmation is valid until: 30 April 2026

TÜV Rheinland Energy & Environment GmbH
Cologne, 4 July 2025

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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 certificate D-PL-11120-02-00.

Confirmation:
4 July 2025

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Test Report:	EuL/21261817/A dated 8 February 2025
Expiry date:	30 April 2026

Approved application
The tested sampling device is suitable for sampling PM_{10} and/or $PM_{2.5}$ for subsequent gravimetric determination.

The suitability of the sampling device for this application was assessed on the basis of a laboratory test and a field test at a location close to the highway for over a month.

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

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

Note
The legal regulations mentioned do not correspond to the current state of legislation in every case. Each user should, if necessary, in consultation with the competent authority, ensure that this sampling device 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 confirmation
This confirmation is based on:

- Test report EuL/21261817/A dated 8 February 2025 issued by TÜV Rheinland Energy & Environment GmbH
- The ongoing surveillance of the product and the manufacturing process
- Expert testing and approval by an independent body

AMS designation:
Giano / Gemini for suspended particulate matter PM_{10} and $PM_{2,5}$

Manufacturer:
Dado Lab srl.

Field of application:
Sampling device for gravimetric determination of particulate matter PM2.5 or PM10 in accordance with DIN EN 12341 (2023)

Software version:
V2.4.2001.u

Restrictions:
none

Notes:
1. The test includes the device versions Giano (single-channel version) and Gemini (dual-channel version).
2. The test was carried out with active air conditioning of the filter chamber.
3. The test report on the suitability test can be viewed on the Internet at www.qal1.de.

Test Institute:
TÜV Rheinland Energy & Environment GmbH, Cologne
Report No.: EuL/21261817/A dated 8 February 2025

Tested product

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

The sampling device is an automatic and sequential device designed as a low volume sampler for dust sampling on membrane filters. The two versions, Giano and Gemini, differ only in the number of sampling lines:
Giano version: one sampling line, either for $PM_{2.5}$ or PM_{10}
Gemini version: two sampling lines, $PM_{2.5}$ and PM_{10}

The only structural difference between the versions is that the Gemini version contains an additional, completely independent and identical sampling line. The complete design and construction of the Gemini is otherwise identical to the Giano. For this reason, the test was carried out for both variants with two Gemini test specimens. All results obtained can be transferred 1:1 to the Giano type.

Basically, the system consists of one sampling line (Giano) or two independent sampling lines (Gemini) and can be operated either with a PM_{10} sampling inlet or a $PM_{2.5}$ sampling inlet (Giano) or in parallel with a PM_{10} sampling inlet and a $PM_{2.5}$ sampling inlet. Ambient air is drawn in via the respective sampling inlet for PM_{10} and/or $PM_{2.5}$ with the aid of a pump. The dust-laden air is then separated for each fraction by a membrane filter. After sampling, the dust separated on the filters is determined by external gravimetric weighing in accordance with the European standard EN 12341. In addition, the filters can be used for further analytical procedures such as the detection of heavy metals.

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Technical specifications / operating parameters Giano / Gemini

Sampling device	Giano:	518 mm x 338 mm x 2300 mm (with sampling tube 600 mm) 66.5 kg (without head)
	Gemini	518 mm x 338 mm x 2300 mm (with sampling tube 600 mm) 73.5 kg (without heads)
Sampling tube	Giano:	300 mm to 2500 mm
	Gemini:	300 mm to 2500 mm
Sampling head	$PM_{2.5}$:	Article 102 101 2015 (body) +article 102 101 2019 (nozzle set)
	PM_{10}:	Article 102 101 2015 (body) + article 102 101 2017 (nozzle set)
Power supply		230 VAC, 50 - 60 Hz
Power consumption	Giano:	450 W
	Gemini:	600 W
Installation conditions		
Temperature		-20 to +50 °C
Humidity		0-95% rH
Sampling line	Giano:	1
	Gemini:	2
Sample flow rate		2.3 m³/h = 38.33 l/min constant
Sampling tube		Aluminium, anodised
Filter management		
Filter type		Plane filter, d = 47 mm
Filter holder		Plastic (POM-C) "Smart cartridge" functionality with storage of sampling data directly in the filter holder, readable with reader and "DADOLAB Filter Programming" software, can also be integrated into Sartorius weighing systems via DADOLINK (this function was not part of the test)
Maximum filter capacity		21
Conditioning of the filters after sampling		Optional (conditioning during the test to target value 23°C)
Data recording		
Interval		60 min
Operating parameters		Flow rate, Volume, Pressure drop across the filter, Sampling time, Air temperature after the filter, Filter storage temperature Ambient pressure Ambient temperature Ambient air humidity Device status Calibration logs Test protocols
Interfaces,		USB, GSM-SMS option, 3G modem option (Dadolab Cloud), smart cartridge option