DATA SHEET

TMI-Orion

NanoVACQ Anemometer

Anemometry and temperature data logger

Air flow and temperature measurement for accurate tuning of the drying process.

NanoVACQ Anemometer is an autonomous data logger equipped with a remote airflow sensor and, depending on the models, a fixed or remote temperature sensor.

The simultaneous use of anemometry and temperature sensors in drying processes allows to measure anemometry and temperature inside dryers, or temperature in the product and ambiant air flow speed.

METROLOGY

		Operating range	Measurement range	Resolution and noise	Uncertainty*
NanoVACQ Ad	**Temperature**	from -30°C to +140°C (short exposure from -70°C to +150°C)	from 0°C to +140°C	0.04°C	± 0.1°C from 0°C to +140°C
	Anemometry	from 0 m/s to 20 m/s	from 0.5 to 20 m/s	0.01 m/s	5% FS (± 0.5 m/s from 0.5 to 20 m/s)

Each logger can be calibrated and adjusted at the temperature points corresponding to the user's needs.

**The specified uncertainties correspond to two standard deviations. The uncertainties are calculated taking into account the various significant error sources, including the calibration probes, the equipment, the environmental conditions, the influence of the logger, repeatability, etc…*

FUNCTIONS

- Start set up: immediate or delayed
- Memory set up: stop at maximum capacity or loop writing
- Time stamped measurement data
- Battery level alert with Qlever software

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TECHNICAL SPECIFICATIONS

Material	Logger body: 316L Stainless steel	
Dimensions	Logger body : height 39 mm, diameter 31 mm	
Models	NanoVACQ Ad	1 removable wing flow sensor
	NanoVACQ Ad-Tc	1 removable wing flow sensor 1 single Pt1000 sensor at the end of a rigid probe D.3mm (length upon request between 10 and 120 mm).
	NanoVACQ Ad-Td	1 removable wing flow sensor 1 single Pt1000 sensor at the end of a rigid probe (D.3 mm and length upon request between 20 and 100 mm) located at the end of a flexible (Teflon®) cable (D. max 5 mm x length upon request between 100 et 1000 mm).
Temperature sensor	Pt1000	
Anemometer	Wing flow sensor	
Memory capacity	48 000 acquisitions divided by number of measurement channels	
Memory capacity with BigMemory option	294 500 acquisitions, divided by number of measurement channels.	
Acquisition rate	Programmable: minimum 1 second, maximum 59 minutes and 59 seconds	
Program duration	Programmable: days, hours, minutes	
Recording	Programmable start: by date, hour, minute	
Power	User replaceable battery pack	
Connectivity	USB wired interface to the PC	

NanoVACQ Ad

NanoVACQ Ad-Tc

Wing flow sensor of the NanoVACQ Ad

NanoVACQ Ad-Td

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AUTONOMY

The NanoVACQ Anemometer is powered by a battery pack; its autonomy depends on environment and operational conditions of the application (extreme temperatures, data acquisition).

As a result of the variety of environments and operational conditions, TMI-Orion does not guaranty the battery lifetime and recommends that the user determine the battery lifetime according to his own process conditions and experience.

SOFTWARE AND RELATED PRODUCTS

NanoVACQ Anemometer is used with Qlever software platform.

Qlever software platform: data acquisition, management and visualization of data from TMI-Orion data loggers. Qlever is installed on a PC and operates under Windows® 7/8/10/11. Data transmission and visualization are done after the industrial process.

- NanoVACQ Ad products family includes NanoVACQ Ad FullRadio for full wireless data logging and real time monitoring.

DELIVERABLES

The NanoVACQ Anemometer solution usually includes the following items:

- The NanoVACQ Anemometer data logger with a battery pack,
- The NanoVACQ Anemometer calibration certificate,
- The NanoVACQ Anemometer configuration and calibration file,
- Qlever software platform (to be ordered separately),
- A USB wired interface to the PC - (to be ordered separately),
- An opening wrench (optional - to be ordered separately),
- A transport case (optional - to be ordered separately).

SERVICES

Maintenance: TMI-Orion recommends annual preventative maintenance and calibration service for the replacement of o-rings, functional checking, calibration and adjustment.

Accessories: The battery packs, engineered by TMI-Orion, are replaceable by the user and are referenced in the documents available on our web site.

Headquarters: TMI-Orion S.A.
Parc Bellegarde - Bâtiment A
1, chemin de Borie
34170 Castelnau-le-Lez - France
T.: +33 (0)4 99 52 67 10 – F.: +33 (0)4 99 52 67 19

www.tmi-orion.com

USA : TMI-USA, Inc.
11491 Sunset Hills Road, Suite 310
Reston, VA 20190 - USA
T : +1 703 668 0114 – F : +1 703 668 0118

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