

DATA SHEET

TMI-Orion

PicoVACQ Pressure and temperature



Pressure and temperature measurement.

PicoVACQ Pressure and Temperature is a very small data logger for temperature and pressure measurement, up to 30 bar. It is equipped with one pressure sensor and one internal temperature sensor.

METROLOGY

	Operating range	Batteries	Temperature resolution	Pressure resolution	Uncertainties*
PicoVACQ PT (5, 15 or 30 bar absolute)	From 0°C to +140°C	015P** 015PV**	0.02°C	0.7 mbar	Pressure: ± 30 mbar from 30 mbar to 15 bar ± 100 mbar at 30 bar Temperature: ± 0.1°C from 0°C to 140°C (+/-0.05°C upon request)
	From -30°C to +85°C	015PW 015PWV			
	From -30°C to +100°C	015M			
	From -30°C to +140°C	016T			
		016PTA			

The letter V indicates battery packs with a thread.

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
- Time stamped measurement data
- Battery level alert with Qlever software



TECHNICAL SPECIFICATIONS

Model	Number of external channels	Pressure probe type	Internal temperature probe	Water tightness	ATEX compliance
PicoVACQ PT	1	Piezoresistive	Internal platinum sensor for pressure sensor compensation	●	
PicoVACQ PT Ex	1			●	●

Material	Logger body: 316L Stainless steel Cover: SS 316L or PEEK				
Dimensions of the logger	Diameter with 316L SS cover	Diameter with PEEK cover	Height without cover	Battery pack	Operating range
	D.17 mm	D.16 mm	H.35 mm	015P**	From 0°C to +140°C
			H.38 mm	015PV**	
			H.60 mm	015PW	From -30°C to +85°C
			H.63 mm	015PWV	
			H.51.5 mm	015M	From -30°C to +100°C
			H.57.5 mm	016T	From -30°C to +140°C
H.83 mm	016PTA				
Memory capacity	8 000 acquisitions per measurement channel				
Acquisition rate	Programmable: minimum 4 acquisitions per second, maximum 1 acquisition per 59 minutes and 59 seconds				
Program duration	Programmable: days, hours, minutes				
Recording	Programmable start: by date, hour, minute or on temperature threshold				
Power	User replaceable battery pack				
Connectivity	USB wired interface to the PC				
ATEX compliance	Please refer to specific documentation on our website				

(**) The battery life decreases significantly below ambient temperature and becomes very short close to 0°C. In applications below ambient temperature, we recommend that you use other battery models or check that the application is compatible with the battery type.



PicoVACQ PT with remote pressure sensor



PicoVACQ PT with 316L SS cover



PicoVACQ PT with PEEK cover



AUTONOMY

The PicoVACQ Pressure and Temperature is powered by a battery pack; its autonomy depends on environment and operational conditions of the application (temperatures at both ends of the mentioned operating range, data acquisition rate).

Please contact our sales department to optimize the choice of the battery pack according to the temperature of your application.

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

SOFTWARE AND RELATED PRODUCTS

PicoVACQ Pressure and Temperature is used with Qlever software.

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®

Vista/7/8/10. Data transmission and visualization are done after the industrial process.

This logger also exists in an ATEX version for use in explosive environments. Download specific datasheet from our website.

DELIVERABLES

The PicoVACQ Pressure and Temperature usually includes the following items:

- The PicoVACQ Pressure and Temperature data logger with a battery pack
- The PicoVACQ Pressure and Temperature calibration certificate

- The PicoVACQ Pressure and Temperature configuration and calibration file
- Qlever software (to be ordered separately)
- A USB wired interface to the PC (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.

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