

DATA SHEET

TMI-Orion

VACQ xFlat Pt100



Measurement at 10 points simultaneously with Pt100 platinum sensors from -90°C to +260°C.

The VACQ xFlat Pt100 is an autonomous temperature data logger equipped with LEMO®, Fischer Connectors® or Sub-D 25 connectors for 10 Pt100 platinum probes.

The VACQ xFlat Pt100 is used at room temperature outside the process, only the probes are inserted in the process.

METROLOGY

Operating range	Measurement range of the Pt100 probes	Resolution	Internal reference channel uncertainty*
Room temperature	From -90°C to +260°C **	< 0.02°C	±0.1°C from -90°C to +260°C

Each probe 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, class A Pt100 probes, etc...

(**) For different conditions of use, please contact us.

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

TECHNICAL SPECIFICATIONS

Material	Logger body: Anodized aluminum	
Dimensions	L.150 mm x H.20 mm x W.80 mm	
Number of channels and connector type	Fischer Connectors®	10 Fischer Connectors for platinum sensors 1 internal temperature channel (optional)
	LEMO®	10 LEMO connectors for platinum sensors 1 internal temperature channel (optional)
	Sub-D 25	2 Sub-D 25 connectors for the connection of 10 platinum sensors 1 internal temperature channel (optional)
Temperature sensor	Pt100	
Memory capacity	21 813 acquisitions per measurement channel Acquisitions stored in non-volatile memory (EEPROM)	
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	Interchangeable power supply to be used according to the application: AC adapter (+ backup battery pack) or two user replaceable 015S batteries	
Connectivity	USB wired interface with the PC	
Watertightness	Not watertight. Do not immerse. Use at a pressure close to atmospheric pressure.	



VACQ xFlat Pt100
with connectors Fischer Connectors®



VACQ xFlat Pt100 with Sub-D 25 connectors



VACQ xFlat Pt100 with LEMO® connectors



AC adaptor for VACQ xFlat Pt100



AUTONOMY

The VACQ xFlat Pt100 is powered by an AC adapter or by two batteries 015S. With batteries, autonomy depends on environment and operational conditions of the application (extreme temperatures of the mentioned temperature range, data acquisition rate).

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

VACQ xFlat Pt100 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® Vista/7/8/10/11. Data transmission and visualization are done in real time or after the process.

DELIVERABLES

The VACQ xFlat Pt100 solution usually includes the following items:

- The VACQ xFlat Pt100 data logger with a battery pack and/or an AC block + AC adapter,
- The VACQ xFlat Pt100 calibration certificate

- The VACQ xFlat Pt100 configuration and calibration file
- A USB wired interface to the PC - (to be ordered separately)
- Qlever software platform (to be ordered separately)
- A transport case (to be ordered separately)

SERVICES

Maintenance: TMI-Orion recommends annual preventative maintenance and calibration service for functional checking, calibration and adjustment.

Accessories: The battery packs, engineered by TMI-Orion, are replaceable by the user and are referenced in our products list.

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