

DATA SHEET

TMI-Orion

VACQ 3000



48-thermocouple temperature measurement pack for real time temperature measurement at various points for thermal process control.

Combination of 1 VACQ xFlat 4.8 Radio + 1 VACQ xFlat 2.8 Radio, or 3 VACQ xFlat 2.8 Radio, in an easy to store and transport rack for laboratory processes. The rack is used at room temperature outside the process, but the data loggers may be removed from the rack and used fully autonomously inside processes.

The VACQ xFlat 2.8 Radio and VACQ xFlat 4.8 Radio can be powered either by batteries or AC adaptor. The use of the loggers with power adaptor frees the user from battery lifetime concerns. When required by the application, it is possible switch to battery mode so the loggers are fully autonomous.

Examples of combinations :



VACQ 3000 with a combination of 3 VACQ xFlat 2.8 radio in battery mode



VACQ 3000 with a combination of 1 VACQ xFlat 2.8 radio and 1 VACQ xFlat 4.8 Radio with AC Adaptor

TECHNICAL SPECIFICATIONS

Material of the rack	Polyurethane (PU9012)
Material of the data loggers bodies	Anodized aluminum
Dimensions of the rack	L.180 mm x H.140 mm x W.95 mm
Maximum temperature to which the rack can be exposed	50°C (Used only at room temperature)

Please refer to the VACQ xFlat 2.8 Radio and VACQ xFlat 4.8 Radio data sheet for technical specifications concerning the data loggers.



FUNCTIONS

- 2.4 GHz radio communication
- Start set up: immediate or delayed
- Real time or after the process radio data transmission
- Time stamped measurement data
- Battery level alert with Qlever software
- Interchangeable power supply

RADIO FREQUENCY COMMUNICATION

2.4 GHz ISM band (frequency range 2.405 GHz to 2.475 GHz)
/ Can be used without license / Universal band for industrial, scientific and medical devices with low radio transmission power / Maximum radiated power +5 dBm (3,2 mW).

- Radio transmission range depends on the environment.
- TMI-Orion 2.4 GHz radio protocol, based on IEEE 802.15.4 standard / 14 RF channels for the user / Able to manage several pieces of equipment connected in star configuration in the same space.

SOFTWARE AND RELATED PRODUCTS

VACQ xFlat 2.8 Radio and VACQ xFlat 4.8 Radio are used with Qlever software platform and a TMI-Orion radio transceiver.

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. Depending on the use of VACQ xFlat 2.8 Radio and VACQ xFlat 4.8 Radio, data transmission and visualization is done in real time or after the process.

TMI-Orion radio transceiver: this transmitting device connects to the PC in order to ensure radio link with the VACQ xFlat 2.8 Radio and VACQ xFlat 4.8 Radio. Several antennas are available to optimize radio communications in the operational environment.

DELIVERABLES

The VACQ 3000 solution usually includes the following items:

- 1 VACQ xFlat 4.8 Radio data logger + 1 VACQ xFlat 2.8 Radio data logger both with a battery pack and/or AC block + AC adapter,
- OR
- 3 VACQ xFlat 2.8 Radio data loggers each of them with a battery pack and/or AC block + AC adapter,

- A rack
- The data loggers calibration certificates
- The data loggers configuration and calibration files
- A TMI-Orion radio transceiver (to be ordered separately)
- Qlever software platform (to be ordered separately)
- A transport case (optional – 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 the documentation available on our web site.

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