TMI Data logger, PicoVACQ.

Loggers for explosive environments

PicoVACQ Ex



Measurement of temperature, pressure, humidity in explosive environments

PicoVACQ is the most miniaturized family of products from TMI-Orion. The different models enable measurement of temperature, pressure and humidity during thermal processes, even in the smallest packages.

Some of the PicoVACQ models are available with Ex option, thus enabling the logging of temperature, pressure and humidity in explosive environments, for example inside ethylene oxide autoclaves, during the control of sterilization in hospitals or pharmaceutical industry.

Compliant with regulations:
- EN 60079-0
- EN 60079-11

Marking:
- II 1G Ex ia IIC T6 Ga









PicoVACQ 1Tc Ex



- Pt1000 temperature sensor at the end of a rigid probe (0, 10, 15, 20, 30 mm)

PicoVACQ HT Ex



- Integrated capacitive humidity sensor with protection and Pt1000 temperature sensor

PicoVACQ PT Ex



- Integrated piezoresistive pressure sensor and Pt1000 temperature sensor

Metrology

- Operating range:
  - PicoVACQ 1Tc Ex : from -30°C to 70°C
  - PicoVACQ PT Ex : from -30°C to 70°C
    Pressure: from 30 mbar to 15 bar
  - PicoVACQ HT Ex : from -30°C to 70°C
    Humidity: from 0% to 100% HR non condensed

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Metrology

- **Global calibration uncertainty:**
  - **temperature:** +/- 0.1°C from 0°C to 80°C
  - **pressure:** +/- 12 mbar from 30 mbar to 15 bar
  - **humidity:** +/- 3% HR (+/-1% possible if COFRAC)

The above uncertainties correspond to two type standard deviations.

- **Resolution and noise:**
  - **temperature:** 0.015°C
  - **pressure:** 0.5 mbar
  - **humidity:** 0.01 % HR

Yearly calibration and check-up recommended.
Each logger can be calibrated and verified at the temperature points needed by the user.

Technical specifications

- **Material of the logger body:** INOX 316L
- **Dimensions :**

PicoVACQ 1T and 1Tc Ex
- Diameter 15 mm, height 22 or 40 mm depending on battery pack pile + rigid probe

PicoVACQ PT Ex
- Diameter 16 mm, height 35 or 53 mm depending on the battery pack.

PicoVACQ HT Ex
- Diameter 15 mm, height 59 mm

Watertight up to 15 bar (except for PicoVACQ HT Ex non watertight when used inside autoclave or immersed).

- **Sensors:**
  - **Temperature:** Pt1000
  - **Pressure:** piezoresistive
  - **Humidity:** capacitive

- **Memory capacity:** from 8000 to 16000 acquisitions, depending on number of channels.
- **Programmable acquisition rate:**
  - PicoVACQ 1Tc Ex and HT Ex
    minimum 1 second, maximum 59 minutes and 59 seconds
  - PicoVACQ PT Ex
    minimum 4 acquisitions per second, maximum 59 minutes and 59 seconds
- Programmable acquisition duration
- Programmable recording start by date, hour, minute or temperature threshold
- User replaceable battery
- Non volatile memory (EEPROM)

Software operating conditions

- Data transfer through a communication interrface connected to the USB port of your PC.
- Operates under Windows® XP(SP3)/Vista/7/8

NOTA: Aceasta fisa a fost realizata sub rezerva modificarilor ulterioare de ordin tehnic sau a erorilor de editare.

Fotografia are caracter informativ.

NOTE: Products and specifications are subject to change without prior notice .Pictures may differ from original.