NanoVACQ Flat

NanoVACQ Plat has been designed to measure temperature in narrow spaces (diameter 40 mm, height 11mm).

NanoVACQ Flat 1T   : 1 Pt1000 type internal temperature sensor.

NanoVACQ Flat 1Tc   : 1 Pt1000 type temperature sensor at the end of a rigid probe
of 3mm in diameter and length to be determined (10, 20, 40,
75 or 100 mm). Beyond 10 mm, the probe will be reinforced
at its basis (d. 4 mm, length 5mm).

Metrology
- Operation range: from 0°C to +150°C (and more with thermal shield)
- Calibration uncertainty: +/- 0,1°C from 0°C to 140°C (+/- 0.05°C upon request)
  The uncertainties correspond to two standard deviation.
  The uncertainties type are calculated taking into account the various significant error sources, including calibration probes, equipments, environmental conditions, logger influence, repeatability, etc…
- Resolution   : 0,015°C
- Annual recalibration and check up recommended.
- Each logger can be calibrated and checked at the temperature points needed by the user.

Technical specifications
- Dimensions: diameter 40mm, height 11 mm.
- Water tightness : up to10 bar
- External materials biocompatible and sterilizable: 316 L Stainless steel
- Sensors: Pt1000
- Memory capacity: 16 000 acquisitions.
- Programmable acquisition rate: minimum 1 second, maximum 59 minutes and 59 seconds.
- Programmable acquisition duration
- Programmable recording start by date or on temperature threshold
- High autonomy battery.
- High temperature power supply replaceable by the user.
- Non volatile memory (EEPROM).

Software operating conditions
- Data transfer with a communication interface connected to the serial or USB port.
- Operates under Windows® 98/Me/NT/2000/XP

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NanoVACQ Flat with needle: 1 Pt1000 sensor at the end of a rigid probe 2.4 mm in diameter, reinforced on its basis by a thread.

The NanoVACQ Flat « Needle » enables the temperature measurement of a product at all points inside its packaging, avoiding any thermal mass.

For packagings subjected to high pressures (metal boxes for instance), a sheath prolonged by a hollow needle (diameter 4 mm) can be used. It is screwed inside the box before filling and sealing. A thread and an o-ring ensure positioning at the coldest point as well as perfect water tightness. Moreover, the needle allows pinning a product inside the packaging.
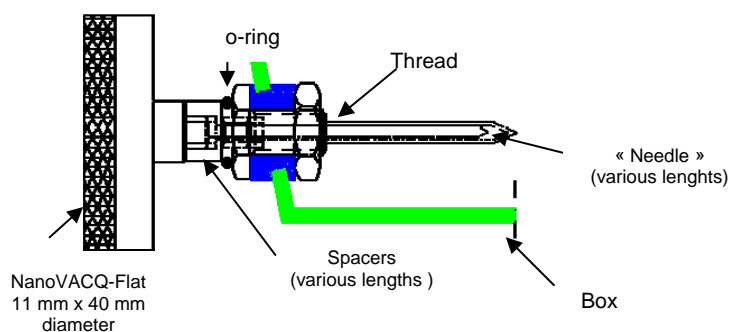
After sealing, just screw the NanoVACQ-Flat into the hollow needle.

This device can adapt to various box dimensions and needle lengths by simply using spacers.

The package is generally composed of:
- 1 NanoVACQ-Flat (probe 2.4 mm in diameter x length to be determined between 20 and 60 mm);
- 1 or more hollow needles (diameter 4 mm x length to be determined between 20 and 60 mm),
- fixing thread,
- 1 kit of spacers,
- 1 kit of o-rings,
- 1 tube of silicon grease,
- 1 tube of silicon mastic.

Sheath with needle and various elements