

Temperature and shrinkage data logger

High-T-Dry

Control of temperature and shrinkage in High Temperature drying processes of bricks, tiles and ceramics. (up to 250°C)



High-T-Dry correlates the evolution of air temperature with the shrinkage of bricks, tiles or ceramics while they dry. It also enables the acute evaluation of drying within two parts of the same brick or tile.

The product has been specifically designed to respond to the high temperature drying processes up to 250°C.



General description



- The **High-T-Dry** consists of two parts, related by high temperature cables : the logger and the sensors unit.
- The logger contains electronics and a user replaceable battery. It is 31 mm in diameter and 39 mm high. The logger may be exposed to temperatures up to 125°C (257°F). It is equipped with watertight connectors and thus can be immersed in the water of a thermal shield.
- The sensors unit contains a temperature sensor and a linear potentiometer, set on a metal plate. It can be exposed to higher temperatures, up to 250°C (482°F).
- Other versions of the **High-T-Dry** can be manufactured upon request (2 linear potentiometers for example) but would have special specifications. Therefore, the conditions of use may vary from the ones described below.



High-T-Dry



Metrology

- **Electronic operation range:** Temperature: From 0°C to +125°C
- **Sensors operation range:** Temperature: From 0°C to +250°C (32°F to 482°F)
- **Measurement range:** From 0°C to +250°C (32°F to 482°F) and from 140 to 160 mm
- **Calibration range in temperature:** from 0°C to 250°C (32°F to 482°F)
- **Resolution:**
 - resolution and noise in temperature : 0.05°C
 - resolution and noise in length : 0.02 mm
- **Uncertainty with interchangeability tolerance:**
Temperature uncertainty of $\pm 0.5^\circ\text{C}$ from 0°C to +140°C and $\pm 0.7^\circ\text{C}$ from 140°C to 250°C
- **Re-calibration:** Optional temperature recalibration software

Technical specifications

- **Sensors:** Pt100 sensor and linear potentiometer
- **Min. dimensions:** Body : $\varnothing 31$ mm x 39 mm
- **Memory capacity:** 48 000 acquisitions divided by number of channels
Storage of the acquisitions in non-volatile memory
- **Acquisition period:** User programmable (minimum 1 acquisition per second, maximum every 59 minutes and 59 seconds)
- Programmable acquisition duration
- Programmable recording start from a date, hour, minute
- **Thermal shield:** 72 hours at 250°C (water 4 liters)

Software operating conditions

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



NOTA:

A yearly maintenance is advised for O-rings replacement, recalibration and adjustment.