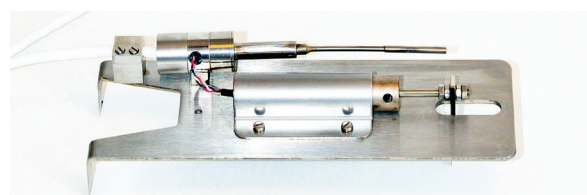
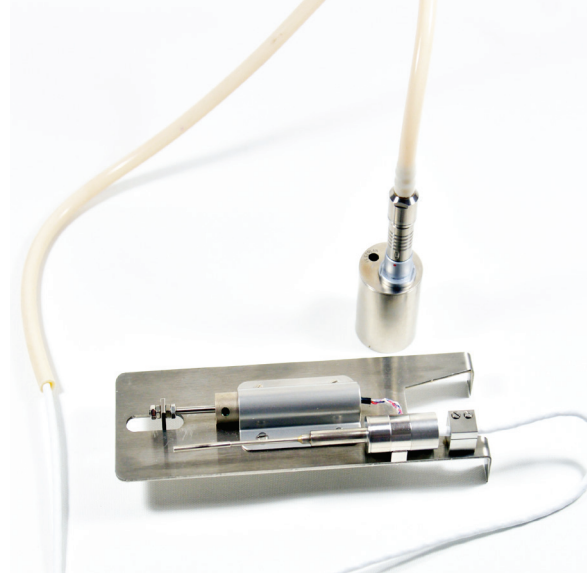


DATA SHEET

TMI-Orion

High-T-Dry

Temperature and shrinkage data logger



Monitoring of temperature and shrinkage in drying processes of bricks, tiles and ceramics. Up to 250°C.

The High-T-Dry is an autonomous data logger equipped with a temperature sensor and a retractometer.

It is made in two parts, the logger and the sensor plate, linked together by a high-temperature cable:

- The logger contains the electronics and a user-replaceable battery pack. It can be exposed to temperatures not exceeding +125°C. It is equipped with watertight connectors and can be immersed in a water thermal shield.

- The sensor plate contains a temperature sensor and a retractometer fixed to a metal plate which can withstand temperatures up to +250°C.

The High-T-Dry correlates the air temperature changes with the shrinkage of bricks during industrial drying. It also enables the acute evaluation of drying within two parts of the same brick or tile.

METROLOGY

| | Logger operating range | Sensor set operating range | Measurement range | Resolution | Uncertainty* With tolerance to interchangeability |
|-------------|------------------------|----------------------------|-------------------|------------|--|
| Temperature | 0°C to +125°C | 0°C to +250°C | 0°C to +250°C | 0.05°C | ± 0.5°C from 0°C to 140°C ± 0.7°C from 0°C to 250°C |
| Shrinkage | 20 mm movement | | 140 mm to 160 mm | 0.02 mm | ± 0.5 mm |

Each logger 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, etc...

FUNCTIONS

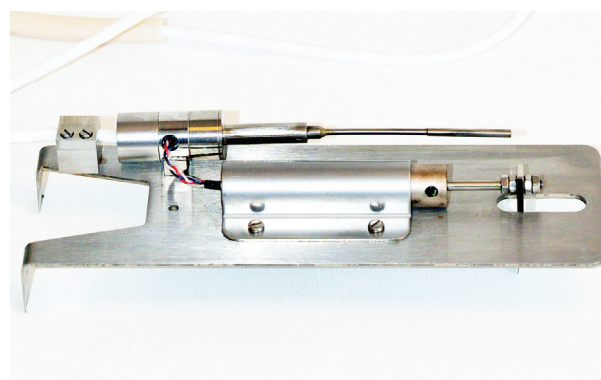
- Start set up: immediate or delayed
- Memory set up: stop at maximum capacity or loop writing
- Time stamped data
- Battery level alert with Qlever software

TECHNICAL SPECIFICATIONS

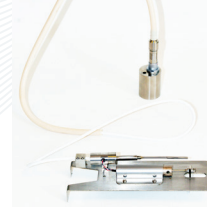
| | |
|---|---|
| Material | 316 L Stainless Steel |
| Dimensions the sensors plate | Length 169 mm, width 55 mm, height 52 mm |
| Dimensions of the logger body | Diameter 31 mm, length 39 mm (minimum) |
| Temperature sensor | PT100 |
| Shrinkage measurement | Linear potentiometer |
| Positioning support | 3 points |
| Length of the high temperature cable | 1 meter |
| Memory capacity | 48 000 acquisitions divided by the number of measurement channels |
| 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 | User replaceable battery pack |
| Connectivity | USB wired interface to the PC |



High-T-Dry



High-T-Dry sensors plate



AUTONOMY

The High-T-Dry is powered by a battery pack; its autonomy depends on the environment and the operational conditions of the application (extreme temperatures, acquisition rate). As a result of the variety of environments and operational

conditions, TMI-Orion does not guaranty the battery lifetime and recommends that the user determine the battery lifetime according to his own process conditions and experience.

SOFTWARE AND RELATED PRODUCTS

The High-T-Dry operates 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. Data transmission and visualization are done after the industrial process.

DELIVERABLES

The High-T-Dry system usually includes the following items:

- The High-T-Dry logger with a battery pack
- The High-T-Dry calibration certificate

- The High-T-Dry 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 - (Optional - To be ordered separately)

SERVICES

Maintenance: TMI-Orion recommends annual preventative maintenance and calibration service for the replacement of o-rings, functional checking, calibration and adjustment.

Accessoires: The battery packs, engineered by TMI-Orion, are replaceable by the user and are referenced in the documents available on our web site.

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