

# DATA SHEET

# TMI-Orion

## CeriDry Split

Temperature,  
humidity and  
shrinkage data logger

**Monitor temperature, humidity and shrinkage in drying processes of bricks, tiles and ceramics with a data logger in two parts for a perfect flow of the hot air. This solution is designed for the drying of hollow bricks, but can be used in other drying processes.**

The CeriDry Split is an autonomous data logger equipped with one temperature sensor, one humidity sensor and one retractometer. This data logger is made in two parts: the retractometer is separated from the temperature and humidity data logger by a high-temperature cable.



The CeriDry Split correlates the changes in relative humidity and air temperature with the shrinkage of bricks, tiles or ceramics during the drying process. It also enables the acute evaluation of drying within two parts of the same brick or tile.

## METROLOGY

	Operating range	Measurement range	Resolution	Uncertainty*
<b>Temperature</b>	- 30°C to +140°C	0°C to +140°C	0.04°C	± 0.1°C
<b>Humidity</b>	0 to 100 % RH non condensed	2 to 98 % HR	0.05 % hr	± 3.5 % RH
<b>Shrinkage</b>	Movement of 20 mm	100 mm to 120 mm	0.01 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 / loop writing
- Time stamped data
- Battery level alert with Qlever software



## TECHNICAL SPECIFICATIONS

<b>Material</b>	316 L Stainless Steel
<b>Dimensions of the temperature and humidity data logger part</b>	Length 80 mm, width 55 mm, height 52 mm
<b>Dimensions of the retractometer part</b>	Length 132 mm, width 50 mm, height 39 mm
<b>Dimensions of the remote retractometer cable</b>	Length upon request, maximum 1 meter
<b>Temperature sensor</b>	PT1000
<b>Humidity sensor</b>	Capacitive
<b>Shrinkage measurement</b>	Linear potentiometer
<b>Positioning support</b>	Temp. & humidity part: 3 points/Retractometer part: 2 points
<b>Memory capacity</b>	12 000 acquisitions per measurement channel
<b>Memory capacity with Big Memory option</b>	73 500 acquisitions per measurement channel
<b>Acquisition rate</b>	Programmable: min. 1 second, max 59 minutes and 59 sec.
<b>Program duration</b>	Programmable: days, hours, minutes
<b>Recording</b>	Programmable start: by date, hour/minute
<b>Power</b>	User replaceable battery pack
<b>Connectivity</b>	USB wired interface to the PC

## AUTONOMY

The CeriDry is powered by a battery pack; its autonomy depends on environment and 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

**CeriDry Split is used 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.

- CeriDry Split family of products includes CeriDry Split FullRadio for full wireless datalogging real time monitoring.



## DELIVERABLES

The CeriDry Split system usually includes the following items:

- The CeriDry Split logger with a battery pack
- The CeriDry Split calibration certificate
- The CeriDry Split 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.

**Accessories:** 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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