

DATA SHEET

TMI-Orion

DryBal

Flat scale
for drying
processes



DryBal is a 3 cm high scale which logs mass variations in bricks, tiles or ceramics during drying processes.

The DryBal is available in two versions: 5 kg and 30 kg.

In combination with a CeriDry and/or a NanoVACQ Ad-Td, the DryBal allows, during the drying process, the combined measurement of:

- Product mass and shrinkage variations,
- Product internal temperature,
- Air flow speed, temperature, and humidity.

METROLOGY

		Operating range	Measurement range	Resolution	Uncertainty*
Temperature		- 10°C to +140°C	0°C to +140°C	0.05°C	± 0.1°C
Mass	DryBal 5	0 to 5 kg	0 to 5 kg	1 gr	± 0.125 kg
	DryBal 30	0 to 30 kg	0 to 30 kg	5 gr	± 0.450 kg

(*) 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 measurement data,
- Battery level alert with Qlever software.



TECHNICAL SPECIFICATIONS

Material	Aluminum and 316 L Stainless Steel
Dimensions	L 294 mm, W 213 mm, H 30 mm
Temperature sensor	Pt1000
Mass sensor	Strain gauge
Memory capacity	43 500 acquisitions per measurement channel
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 or on temperature threshold
Power	User replaceable battery pack
Connectivity	USB wired interface to the PC

AUTONOMY

The DryBal is powered by a battery pack; its autonomy depends on the environment and the operational conditions of the application (extreme temperatures, electromagnetic disturbances, data acquisition and transmission 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 DryBal is used with Qlever software.

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®

7/8/10/11. Data transmission and visualization are done after the industrial process.

DELIVERABLES

The DryBal solution usually includes the following items:

- The DryBal data logger with a battery pack,
- The DryBal configuration and calibration file, Qlever software (to be ordered separately),
- A USB wired interface to the PC (to be ordered separately),
- A case for storage and transport (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.

TMI-Orion S.A.
Parc Bellegarde - Bâtiment A
1, chemin de Borie
34170 Castelnau-le-Lez - France
T.: +33 (0)4 99 52 67 10 – F.: +33 (0)4 99 52 67 19



USA : TMI-USA, Inc.
11491 Sunset Hills Road, Suite 310
Reston, VA 20190 - USA
T : +1 703 668 0114 – F : +1 703 668 0118