Dry Block Thermostat
Operating Manual

Edition 2021-01

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1. Symbols

The following symbols and abbreviations may be found on the packaging material, the device type plate, and in the instructions for use:

Manufactured by

This product meets the requirements of EC Directives 89/336/EEC "Electromagnetic Compatibility" and 73/23/EEC "Low Voltage Directive".

Caution, refer to the accompanying documents!
Please follow the safety guidelines in the operating manual enclosed with this device.

Please consult user instructions.

Biohazard
Samples containing material of human origin must be treated as potentially infectious. Observe the relevant laboratory guidelines for safe handling.

IP XO — No special protection against moisture penetration (IP = International Protection).

REF — Order number

SN — Serial number

Manufacturer:

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2. Safety Instructions

This device has been tested and left the factory in perfect technical condition. To maintain this condition and to ensure safe, trouble-free operation, the user must follow the instructions and warnings provided in this operating manual.

3. Device safety

The Dry Block Thermostat DZ 003 complies with the safety regulations according to the standard DIN EN 61010-1.

The device meets the EMC requirements for laboratory devices according to the standard DIN EN 61326.

4. Disposal

Diaglobal GmbH will take back and dispose of units that are no longer needed or cannot be repaired, free of charge.

5. General information about the Dry Block Thermostat

In order to carry out kinetics tests more efficiently in the laboratory, it is necessary to preheat the samples before measurement. In addition, the reagents must also be kept at incubation temperature during a series of measurements.
For this purpose, a small and handy dry block thermostat was developed as a stand-alone system in addition to the Diaglobal Photometers.

The features in detail are:

- Temperature unit of 37 °C with an accuracy of ± 0.2 °C
- 12 positions for round cuvettes
- Indication of temperature control by LED
- Heating up in 5 minutes per cuvette filled with 1000 µL
- Power supply: 12 V_{DC} / 15 VA
- AC-Adapter: 110 - 240 V_{AC} 50/60 Hz

6. Delivery and Installation

Delivery

After carefully unpacking the device, check whether it is in perfect condition. Also, check if it is complete according to the delivery note. The box contains the following items:

Dry Block Thermostat and AC-Adapter


The packaging materials must be stored carefully in case an item needs to be returned. Notify your dealer immediately if any defects are found.

Installation

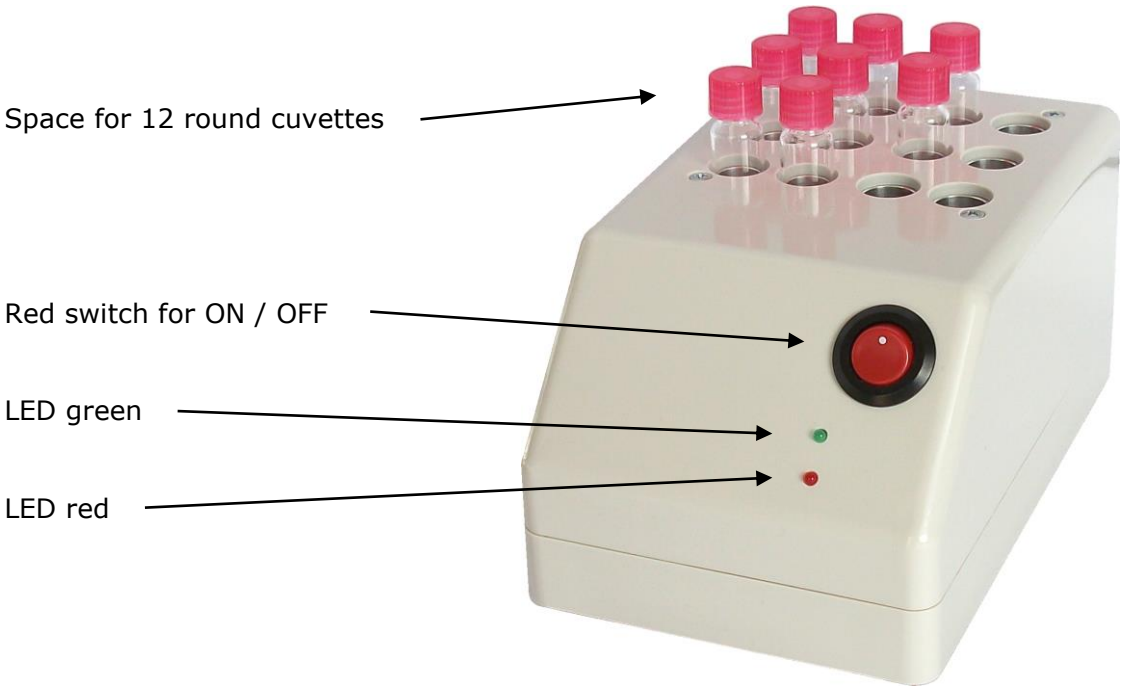
Connect the AC-Adapter to the mains.
The operating voltage range is between 110 V_{AC} and 240 V_{AC} at 50/60 Hz.

Plug the connector into the socket on the backside of the Dry Block Thermostat.

The Dry Block Thermostat DZ 003 is switched on with the red switch on the front of the device.

After a few seconds, the green LED flashes. The red LED shows a continuous light.

7. Operating Elements



8. Operation

After switching on the Dry Block Thermostat DZ 003, the device heats up to a temperature of 37 °C.

The device needs about 20 minutes to heat up.

After the heat-up time, the GREEN LED shows a continuous light.
In this state, the system is ready for use.

The status of the device is shown by two LEDs (Light Emitting Diode):

GREEN LED (used for stability check)

- The LED is flashing: The temperature is not stable.
- The LED lights continuously: The temperature is stable.

RED LED (used for heating power)

- The LED is flashing: The heating is switched on and off.
- The LED lights continuously: The heating is switched on during warm-up.

9. Maintenance

This chapter provides necessary information concerning general maintenance by the user.

 If fault-free operation of the device cannot be achieved, customer service should be contacted. Repairs to the device may only be carried out by authorised specialist staff. Unauthorised repairs can endanger the operator and also invalidate the warranty.

9.1 Cleaning Instructions

 Liquid waste is potentially biohazardous. Always wear gloves when handling these materials. Do not touch any parts of the device other than those specified for use. Consult the laboratory protocol regarding the handling of biohazardous materials.

 Take care that no liquid enters the device! There is no protection against penetrating liquids (Code IP X0).

Commercially available decontaminating solutions commonly used in clinical chemistry laboratories, such as Mikrozid® AF Liquid, Bacillol® plus, 3 % Kohrsolin® or similar, are recommended for cleaning the device and the surface. Before cleaning the unit with a soft cloth and the decontaminating solution, it must be switched off and the electrical power supply must be disconnected.

9.2 Adjustment and Calibration

The Dry Block Thermostat is adjusted and calibrated at the factory on delivery; adjustment by the customer is neither necessary nor possible.

10. Technical Data

10.1 Environmental Conditions

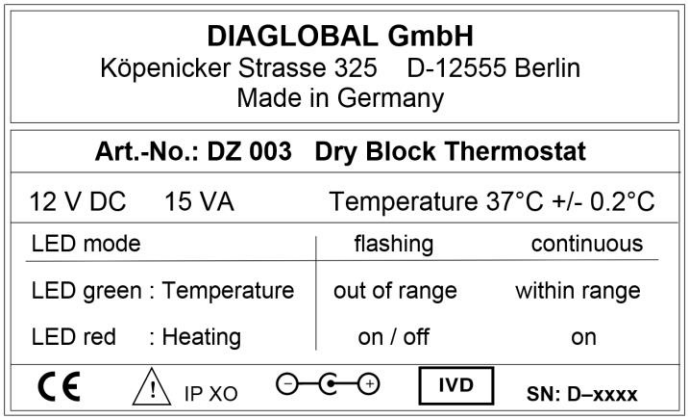
Climatic conditions for storage and transport of the packed device:

- Temperature: -25 °C to +70 °C
- Relative humidity: 20 % to 85 %

The device must be used in an environment that meets the following conditions:

- Temperature: +15 °C to +35 °C
- Relative humidity: 20 % to 85 %
- No direct exposure to sunlight or similar sources of radiant heat
- Well ventilated area
- Free from excessive dust
- Free from flammable gases
- Free from vibrations
- Free from electromagnetic wave interference
- Well distanced from any machine generating a high-frequency voltage

10.2 Type Plate



10.3 Short Specifications

MEASURING SYSTEM

- Microcontroller based temperature device
- Temperature: 37 °C with an accuracy of ± 0.2 °C

POWER SUPPLY

- Supply voltage: 12 V_{DC}
- Maximum current consumption: 1.2 A_{DC}
- Power consumption: < 15 VA
- External mains adapter
  Output: 12 V_{DC}
  Input: 110 V_{AC} up to 240 V_{AC}
  50/60 Hz 0.25 A max.
- Operating with a 12 V_{DC} (car) battery is possible

DIMENSIONS: Dry Block Thermostat

- Dimensions (L/W/H): 160 mm / 100 mm / 85 mm
- Weight: 850 g

DIMENSIONS: AC-Adapter

- Dimensions (L/W/H): 95 mm / 45 mm / 30 mm
- Weight: 250 g

CONTAINER

Dry Block Thermostat DZ 003: 12 positions for round cuvettes

10.4 Certificates

EC Declaration of Conformity

Manufacturer:	Diaglobal GmbH
Adress:	Diaglobal GmbH Innovationspark Wuhlheide Köpenicker Str. 325 / Haus 41 12555 Berlin Germany

Diaglobal GmbH declares under its sole responsibility that the product:

Product name: **Dry Block Thermostat DZ 003**

to which this declaration relates, complies with the requirements of the standards and directives

EN 61326-1

EN 61010

and followed the requirements of **EC Directives 89/336/EEC** "Electromagnetic Compatibility" and **73/23/EEC** "Low Voltage Directive".

This declaration describes a Dry Block Thermostat for laboratory use.

Berlin, October 2008

Diaglobal GmbH