

## neoBlock® Dry Block Heater item no. 2-2503

Please read these instructions carefully before use.

### INTRODUCTION

The neoBlock is a very precise and easy to handle dry block heater.

### ATTENTION

Please do not remove the serial number from the temperature probe. A precise temperature calibration is only guaranteed when the probe is used together with the thermostate of same serial number.

### INSTALLATION

Fit the block carefully into the heater well, otherwise the precisely produced, plane surface could be deformed. The heater well and blocks must touch each other in an optimal way for ensuring an optimal temperature control. An extractor tool is provided with each block to remove the blocks safely and easily. The tool should be screwed tightly into the threaded hole in the block.

For reaching a most precise temperature control, please remove the extractor tool and insert the probe in the probe borehole (Ø 3mm). The probe can also be placed in the borehole marked "PROBE" on the back of the device (depth abt. 10 cm). In both cases, the probe has to be inserted completely until there is contact to the back of the borehole.

Please take into account that in case of placing the probe on the back, there will result a difference of shown temperature and real temperature of the samples of several degrees C.

### CONNECTION

If possible, plug the mains cable directly into a wall socket. The necessary voltage is indicated on the number plate on the back of the device. If connected, the "POWER" light will illuminate.

### OPERATION

Push the On/Off button on the back of the unit.

The display „ACTUAL“ shows the actual block temperature, the display „SET“ shows the nominal temperature preselected. For changing the "SET" temperature, press the Δ (up) or ∇ (down) buttons.

„HEATER ON“ is shown when the unit is heating.

The light „BLOCK HOT“ is continuously illuminated after that block temperature has reached 59,9°C.

### CALIBRATION

The neoBlock has been calibrated to 37,0°C ± 0,2°C. A new calibration is normally not necessary.

In case of need, the „ACTUAL“ temperature display can be changed. Press the „CAL/AUTO OFF“ button, then the Δ (up) oder ∇ (down) buttons for changing the displayed value. The neoLab Migge Laborbedarf-Vertriebs GmbH, Rischerstr. 7-9, D-69123 Heidelberg

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buttons have to be pressed for 2 seconds before the value changes (to avoid unintentional changes of values).

Then press the „CAL/AUTO OFF“ button twice to leave the programming mode.

A return to factory settings is possible by entering the (CAL) value 0.0.

## „AUTO OFF“

The automatic timer will set the block heater off after a preselected time.

For programming the timer, press the „CAL/AUTO OFF“ button twice. Then press the  $\Delta$  (up)

or  $\nabla$  (down) buttons to program the time. Hold the  $\Delta$  /  $\nabla$  buttons for 2 seconds. For activating the timer and leave the programming mode, press the „CAL/AUTO OFF“ button.

If the timer is set, the display will show the remaining time (upper display) and the preselected time (lower display). The time is shown in hours (H). Once the timer has counted down to zero, the upper display will start to flash and the lower display will show “OFF”. By pressing the „CAL/AUTO OFF“ button, the display will return to temperature mode.

**For restarting the timer**, press the „CAL/AUTO OFF“ button 3 times, and the preselected time of the last operation will automatically be displayed. To stop the timer, please set the remaining time to 0 or press the On/Off button.

**In case of error, the timer stops and the display starts to flash (no timer “OFF” indication).**

## ERRORS

Flashlight of the upper display shows that no probe has been connected. A connection with a properly functioning temperature probe will stop flashlight.

Flashlights of both displays will start if the temperature probe is not at one of its places in the heating block so that there is no measured temperature increase.

In rare cases, this can also be caused by no temperature raise after placement of new samples into the block or setting of a new block. By security reasons, this cannot be excluded. Quit this error by pushing the On/Off button.

## ADVICE

For ensuring a safe and economical operation, please set the unit off before extracting the probe. Start the unit only after having reset the probe in its place. This avoids unnecessary heating and waiting periods.

## FAULT

In rare cases, a fault in the current delivery can cause undefined display behaviour. Switch off the unit for 5 seconds, then it will be reset to factory settings.

## TECHNICAL DATA

Voltage:	230 V / 50 Hz
Consumption:	max. 160 VA
Dimensions:	107 x 143 x 151 mm
Weight:	1.8 kg