



# Thermator II – Multifunction temperature calibrator

### Thermator II

## Multifunction temperature calibrator

#### All advantages at a glance

- ✓ Wide temperature range from -35 °C to +165 °C
- Fast and intuitive operation via touch display
- Multifunctional use through four calibration functions in one calibrator
- Flexibility through compact size and a low weight of approx. 13 kg
- Simplified and location-independent control through web interface

- ✓ Precise control: stability <±0.005 °C</p>
- Optimized axial and radial homogeneity through dry block application with Air Shield Technology
- Large calibration volume (Ø 60x170 mm)
- Future-proof through updateable operating system (via USB stick)







## Multifunctional use

#### In the calibration laboratory

The multifunctional application possibilities of the Thermator II are suitable for a flexible execution of temperature calibrations in the laboratory. The easy and quick change of the inserts with the help of the included application tools, enables a high flexibility and fast lead times.



With a total weight of approx. 13 kg, the Thermator ensures II the mobile use and minimal downtime for on-site calibrations. Thus, you can calibrate your measuring equipment directly in your facilities.

The transport trolley (optional), which is especially constructed for all the accessories protect the device additionally during the transport.







# Operating modes



#### Dry block calibrator with Air Shield Technology

For calibration of air and immersion sensors [-35 ... +160 °C]

- The insert sleeve enables an optimal thermal coupling from block to test item
- Insert sleeves with seven bore holes for sensor diameters of 3.5 / 4.5 and 6.5 mm (individual bore holes on request)
- High stability and accuracy due to the dry block application with Air Shield technology
- The Air Shield technology improves the axial and radial homogeneity



#### Micro calibration bath

For calibration of immersion sensors [-35 ... +155 °C]

- Suitable for all common probe diameters
- Very good heat transfer due to the direct contact of the sensor with the calibration liquid
- · Circulation by infinitely variable magnetic stirrer
- Included in the scope of delivery:
  - Cup insert
  - Bath liquid (silicone oil)
  - Magnetic stirrers
  - Tight transport lid with safety valve
  - Sensor basket
  - Magnetic lifter
  - ISO certificate







#### Infrared

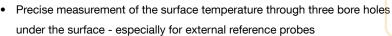
For calibration of infrared measuring devices and thermal imaging cameras [-35 ... +165 °C]

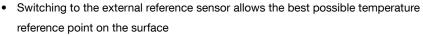
- An emissivity of 0.9994 is achieved by the special design and surface coating of the infrared insert achieved (optimal black body)
- Additional holes in the sleeve for external reference probes for checking the temperature inside the infrared insert



#### Surface

For calibration of common surface probes [-25 ... +150 °C]







## Easy operation through touch display

The new touch display enables intuitive operation of the Thermator II. Program temperature sequences yourself or use the pre-set program sequences for the calibration of your temperature measuring devices. With the operating mode Easy-Mode, you benefit from a simplified input of temperature parameters.

The approach of the temperatures can be shown in a graphic display. Alternatively, the operation is also conveniently via Ethernet connection and web interface from PC possible. All stored calibration results can be downloaded via web interface or via the integrated USB interface.









## Order information

Titel	Description	Order number
Thermator II - Set	Thermator II – SET – multifunction temperature calibrator including all inserts plus ISO calibration certificates	0519 0931
Trolley	Transport trolley	0519 0936

We would be happy to send you an individual quotation. Please contact us:

Phone +49 7661 90901-8000 E-Mail info@testotis.com





## **Technical data**

Characteristics	Thermator II	
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Temperature range*	-35165 °C -25150 °C (Surface)	
Setting range	-50165 °C	
Control sensor (switchable)	External	External + Air Shield Insert
Hysteresis	±0.025 °C	
Dry block (DB)		
Display accuracy	±0.2 °C	±0.099 °C**
Stability	±0.005 °C	±<0.0010.005 °C
Influence of load		±0.01 °C
Temperature distribution Axial Radial		±0.06 °C ±0.01 °C
Infrared (IR)		
Display accuracy	±0.5 °C	-/-
Stability	±0.02 °C	-/-
Surface (SU)		
Accuracy	±1.0 °C	-/-
Stability	±0.15 °C	-/-
Micro calibration bath (LI)		
Display accuracy	±0.137 °C**	
Stability	±0.005 °C	
Influence of load	±0.05 °C	
Temperature distribution Axial Radial	±0.075 °C ±0.05 °C	-/- -/-

<sup>\*</sup> At ambient temperature of 20 °C / 68 °F

<sup>\*\*</sup> Extended measurement uncertainty according to DAkkS-DKD-R 5-4



# **Dimension drawing**



#### **Testo Industrial Services GmbH**

Gewerbestraße 3 79199 Kirchzarten Germany

Fon +49 7661 90901-8000 Fax +49 7661 90901-8010 E-Mail info@testotis.com

www.testotis.com

directly to www.testotis.com

