

Infrared calibrator Model CTI5000

WIKA data sheet CT 41.42



for further approvals
see page 2

Applications

- Testing and calibration of non-contact temperature measuring instruments
- Heating source for on-site laboratories for the calibration of infrared thermometers
- Also suitable for on-site calibration

Special features

- Testing of infrared thermometers across a wide temperature range; 50 ... 500 °C [122 ... 932 °F]
- Large surface area of the black body (Ø 57 mm [2.24 in]) for all types of pyrometers
- Bore to accept a reference sensor
- Low weight and compact design
- Simple operation



Infrared calibrator, model CTI5000

Description

Aim – shoot – test

For the calibration of infrared thermometers above ambient temperature, the model CTI5000 is suitable up to 500 °C [932 °F]. Due to its stability, the new portable infrared calibrator is particularly suited to the calibration of infrared hand-held thermometers.

The black body has a large diameter so that a wide variety of infrared thermometers can be tested, no matter which lenses are fitted.

The emissivity is fixed at 0.95 and the temperature can be controlled in steps of 0.1 °C.

To check the black body, there is a bore located directly behind the surface so that the measurement can be made with contact and the quality monitored.

Specifications Model CTI5000

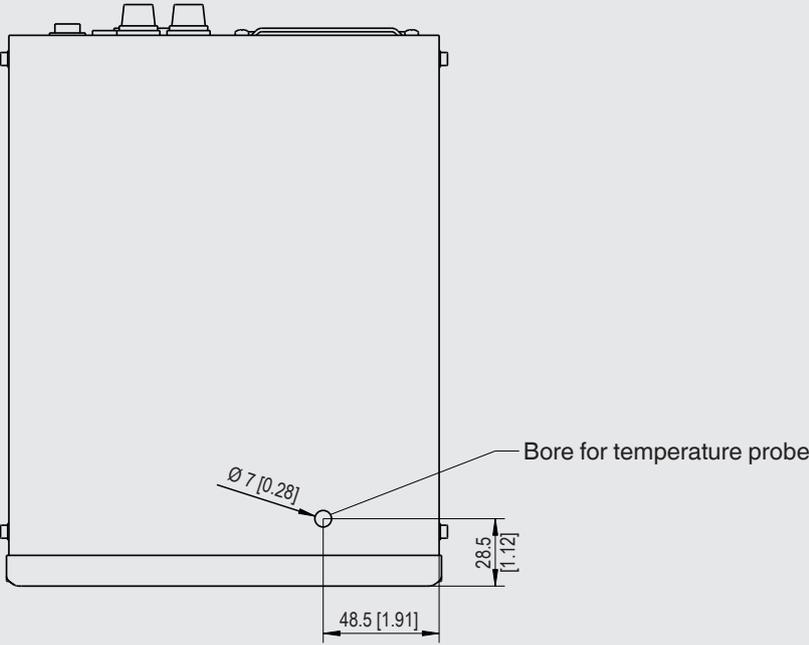
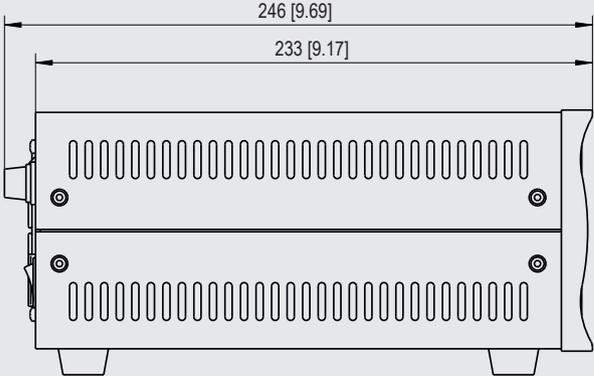
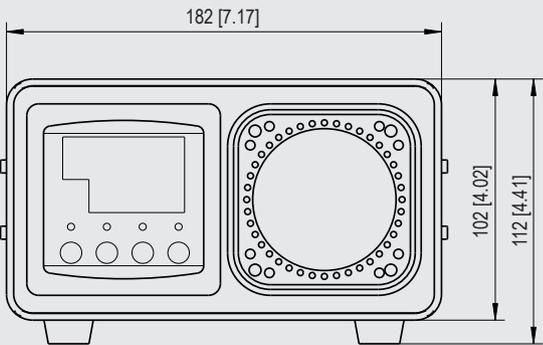
Infrared calibrator	
Indication	
Application range	50 ... 500 °C [122 ... 932 °F]
Stability	±0.1 K to 100 °C [212 °F] ±0.2 K to 350 °C [662 °F] ±0.4 K to 500 °C [932 °F]
Resolution	0.1 K
Temperature control	
Heating time	30 min from T _{amb.} to 500 °C [T _{amb.} to 932 °F]
Cooling time	40 min from 500 °C to 100 °C [from 932 °F to 212 °F]
Stabilisation time	approx. 15 ... 20 min
Measuring surface	
Emissivity	0.95
Diameter of the measuring surface	57 mm [2.24 in]
Bore for temperature probe	suitable for 3 mm [0.12 in] probes with an immersion depth of 68 mm [2.68 in]
Permissible ambient conditions	
Relative humidity	35 ... 85 % r. h. (non-condensing)
Operating temperature	5 ... 35 °C [41 ... 95 °F]
Voltage supply	
Power supply	AC 230 V, 50/60 Hz
Power consumption	275 VA
Case	
Dimensions [W x D x H]	190 x 248 x 113 mm [7.5 x 9.8 x 4.5 in]
Weight	2.1 kg [4.6 lbs]

Approvals

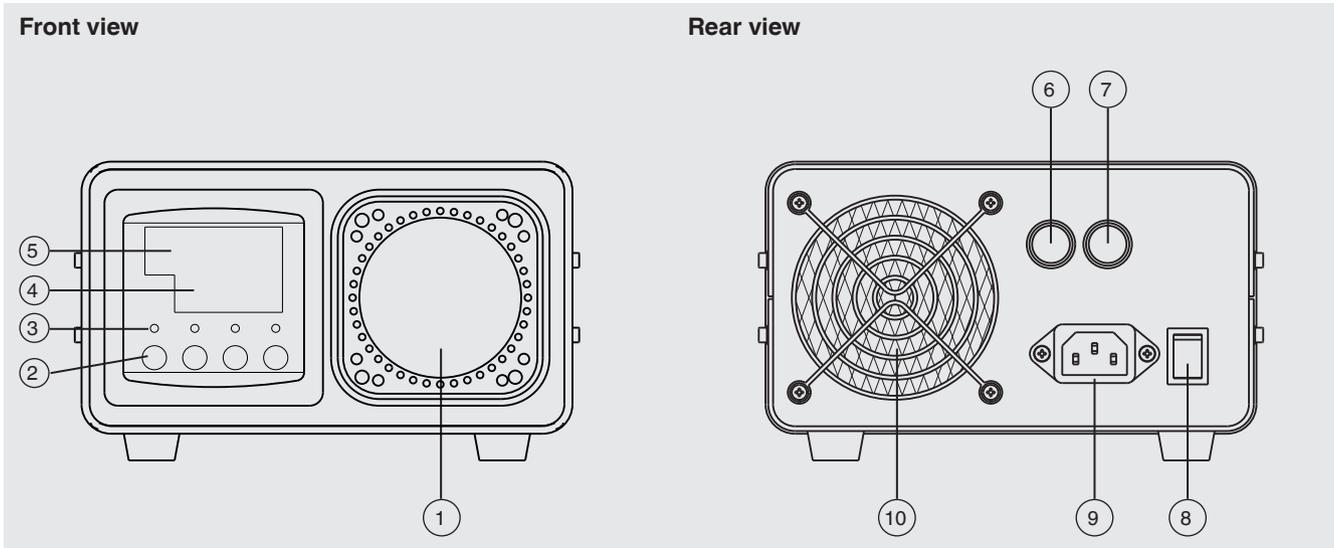
Logo	Description	Country
	EU declaration of conformity ■ EMC directive ■ Low voltage directive ■ RoHS directive	European Union
	EAC ■ EMC directive ■ Low voltage directive	Eurasian Economic Community
-	MTSCHS Permission for commissioning	Kazakhstan
	BelGIM Metrology, measurement technology	Belarus

Approvals and certificates, see website

Dimensions in mm [in]



Controls



- | | |
|--|---------------------------|
| ① Measuring surface | ⑥ Fuse for the heating |
| ② Control panel | ⑦ Fuse for the control |
| ③ Status LED's | ⑧ ON/OFF switch |
| ④ Indication of the currently-selected set temperature | ⑨ Mains connection socket |
| ⑤ Indication of the current block temperature | ⑩ Fan |

Scope of delivery

- Infrared calibrator model CT15000
- Operating instructions
- Power cord

Ordering information

Model / Mains voltage / Further approvals / Additional ordering information

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