

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)
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)
Weight	2.1 kg (4.6 lbs)

Approvals

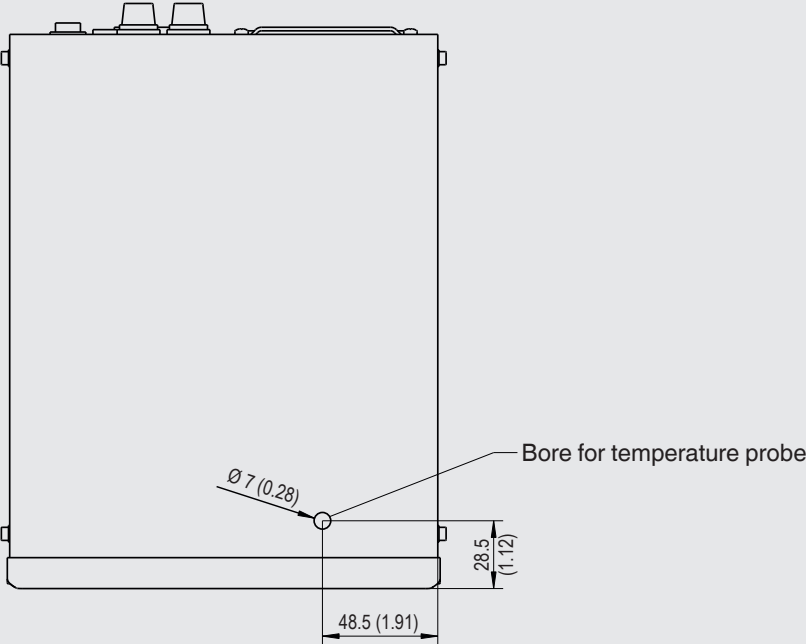
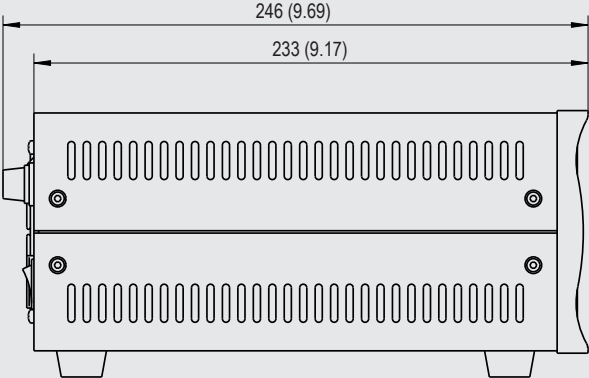
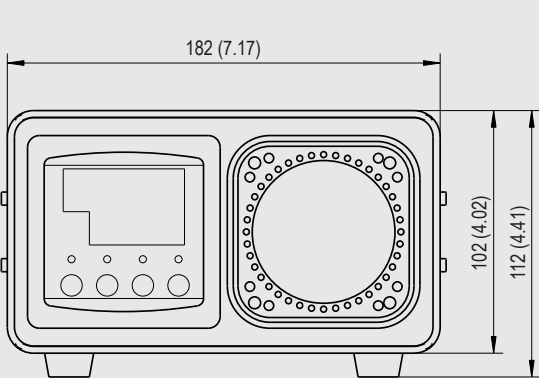
Logo	Description	Country
	EC declaration of conformity ■ EMC directive 2004/108/EC ■ Low voltage directive 2006/95/EC	European Community
	EAC ■ Electromagnetic compatibility ■ Low voltage directive	Eurasian Economic Community
	KazInMetr Metrology, measurement technology	Kazakhstan
	MTSchS Permission for commissioning	Kazakhstan
	BelGIM Metrology, measurement technology	Belarus
	Uzstandard Metrology, measurement technology	Uzbekistan

Certificates

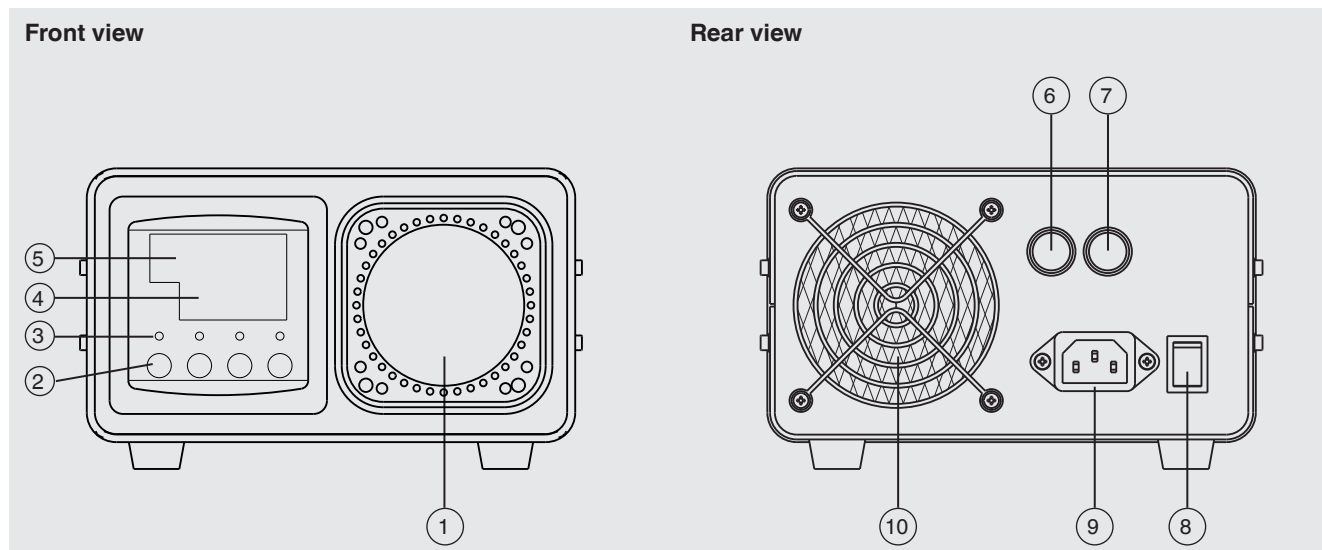
Certificate	
Calibration	Standard: 3.1 calibration certificate per DIN EN 10204 Option: DKD/DAkkS calibration certificate
Recommended recalibration interval	1 year (dependent on conditions of use)

Approvals and certificates, see website

Dimensions in mm (in)



Controls



- ① Measuring surface
- ② Control panel
- ③ Status LED's
- ④ Currently selected set point
- ⑤ Current block temperature

- ⑥ Fuse for the heating
- ⑦ Fuse for the control
- ⑧ ON/OFF switch
- ⑨ Mains connection socket
- ⑩ Fan

Scope of delivery

- Infrared calibrator model CTI5000
- Operating instructions
- Power cord

Ordering information

Model / Mains voltage / Additional ordering information

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We reserve the right to make modifications to the specifications and materials.



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