



# Infrared temperature measuring instrument

**testo 845 – The infrared thermometer with switch optics**




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Non-contact measurement of surface temperature with reference accuracy  $\pm 0.75$  °C and fast measurement technology (scanning 100 ms)

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Switchable optics for measurements in the far-field (75:1) and close focus (1 mm, distance 70 mm)

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Especially bright laser marking of actual measurement point

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Probe input for TC probes for determining emissivity

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Optical and audible alarm when limit values are violated

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The testo 845 is a compact infrared thermometer with switch optics for the non-contact measurement of surface temperatures. The switchable optics for far-field and close focus measurements make it possible to measure at short as well as at greater distances. Measurements in the far-field are taken at an optical resolution of 75:1. This allows surface temperatures to be measured accurately even at greater distances to the measurement object. At a distance of 1.2 metres to the measurement object, the measurement point diameter is only 16 mm. A cross laser marks the measurement site exactly.

For measurements at a short distance to the measurement object, the close focus optics offer a measurement point diameter of only 1 mm at a distance of 70 mm. Two laser points mark the measurement area. Measurements can also be carried out by connecting additional probes. The limit values can be individually stored in the instrument; as soon as these upper and lower limit values are violated, an audible and an optical signal are given.

## Technical data / Accessories

### testo 845

testo 845, infrared temperature measuring instrument with cross laser marking and switchable optics for far-field and close focus measurement, incl. PC software with USB data transfer cable, aluminium case, battery and calibration protocol

Part no. 0563 8450



### testo 845 with integrated humidity module

testo 845, infrared temperature measuring instrument with cross laser sighting incl. humidity module, switchable optics for far-field and close focus measurement, PC software incl. USB data transfer cable, aluminium case, battery and calibration protocol

Part no. 0563 8451



#### General technical data

Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +70 °C
Battery type	2 AA batteries
Battery life	25 h (without laser), 10 h (with laser without light), 5 h (with laser and 50% light)
Measurement rate	t95: 150 ms; Scanning Max/Min/Alarm: 100 ms
Emissivity	Adjustable 0.1 to 1.0
Material/Housing	black/gray, metal screen
Optical resolution	Far field: 75:1 16 mm @ 1200 mm (90%) Close focus: 1 mm @ 70 mm (90%)
Dimensions	155 x 58 x 195 mm
Weight	465 g
Warranty	2 years

	testo 845 + testo 845 with integrated humidity module		testo 845 with integrated humidity module
Sensor types	Infrared	Type K (NiCr-Ni)	Humidity module
Meas. range	-35 to +950 °C	-35 to +950 °C	0 to +100 %RH / 0 to +50 °C / -20 to +50 °C td
Accuracy ±1 digit	±2.5 °C (-35 to -20.1 °C) ±1.5 °C (-20 to +19.9 °C) ±0.75 °C (+20 to +99.9 °C) ±0.75% of mv (+100 to +950 °C)	±0.75 °C (-35 to +75 °C) ±1% of mv (+75.1 to +950 °C)	±2 %RH (2 to 98 %RH) ±0.5 °C (+10 to +40 °C) ±1 °C (remaining range)
Resolution	0.1 °C	0.1 °C	0.1 °C td / 0.1 %RH

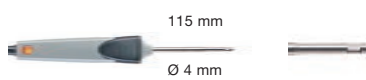

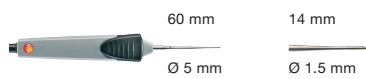

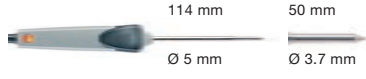
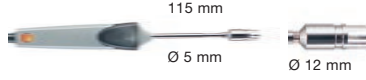

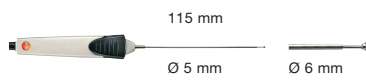

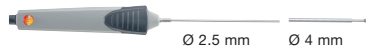
#### Accessories

#### Part no.

##### Accessories for measuring instrument

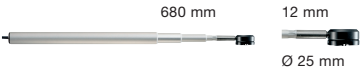


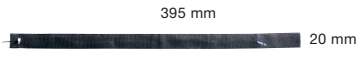



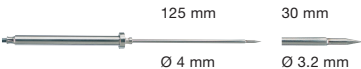
Humidity module, upgradeable for testo 845	0636 9784	
Plug-in mains adapter, 5 VDC 500 mA with European adapter, 100-250 VAC, 50-60 Hz	0554 0447	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610	
Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries	0554 0549	
Spare thermal paper for printer (6 rolls), permanent ink	0554 0568	
testo saline pots for control and humidity adjustment of humidity probes, 11.3 %RH and 75.3 %RH with adapter for humidity probe	0554 0660	
Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), E = 0.95, temperature resistant to +250 °C	0554 0051	
Silicone heat paste (14g), Tmax = +260°C, improves heat transfer in surface probes	0554 0004	

# Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Part no.
<b>Air probes</b>					
Robust air probe, T/C Type K, Fixed cable 1.2 m		-60 to +400 °C	Class 2 <sup>1)</sup>	25 s	0602 1793
<b>Immers./penetr. probes</b>					
Efficient and fast-action immersion probe, waterproof, TC Type K, Fixed cable 1.2 m		-60 to +1000 °C	Class 1 <sup>1)</sup>	2 s	0602 0593
Fast-action, waterproof immersion/penetration probe, TC Type K, Fixed cable 1.2 m		-60 to +800 °C	Class 1 <sup>1)</sup>	3 s	0602 2693
Immersion tip, flexible, TC Type K		-200 to +1000 °C	Class 1 <sup>1)</sup>	5 s	0602 5792
Waterproof immersion/penetration probe, TC Type K, Fixed cable 1.2 m		-60 to +400 °C	Class 2 <sup>1)</sup>	7 s	0602 1293
<b>Surface probes</b>					
Fast-action surface probe with sprung thermocouple strip, also for uneven surfaces, measurement range short-term to +500°C, TC Type K, Fixed cable 1.2 m		-60 to +300 °C	Class 2 <sup>1)</sup>	3 s	0602 0393
Fast-reaction paddle surface probe, for measurements in inaccessible places, e.g. narrow apertures and slots, TC Type K, Fixed cable		0 to +300 °C	Class 2 <sup>1)</sup>	5 s	0602 0193
Waterproof surface probe with widened measurement tip for flat surfaces, T/C Type K, Fixed cable 1.2 m		-60 to +400 °C	Class 2 <sup>1)</sup>	30 s	0602 1993
Fast-action surface probe with sprung thermocouple strip, bent, also for uneven surfaces, measurement range short-term to +500°C, TC Type K, Fixed cable 1.2 m		-60 to +300 °C	Class 2 <sup>1)</sup>	3 s	0602 0993
Efficient, waterproof surface probe with small measurement head for flat surfaces, TC Type K, Fixed cable 1.2 m		-60 to +1000 °C	Class 1 <sup>1)</sup>	20 s	0602 0693

1) According to norm EN 60751, the accuracy of Classes 1 / 2 refers to -40 to +1000/+1200 °C.

# Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Part no.
<b>Surface probes</b>					
Flat head surface probe with telescopic handle max. 680 mm for measurements at hard-to-access points, TC Type K, Fixed cable 1.6 m (correspondingly shorter when telescope extended)		-50 to +250 °C	Class 2 <sup>1)</sup>	3 s	0602 2394
Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K, Fixed cable 1.6 m		-50 to +170 °C	Class 2 <sup>1)</sup>		0602 4792
Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K, Fixed cable 1.6 m		-50 to +400 °C	Class 2 <sup>1)</sup>		0602 4892
Pipe wrap probe with velcro strip; for temperature measurement on pipes with diameter up to max. 120 mm; Tmax. +120 °C; TC Type K, Fixed cable 1.5 m		-50 to +120 °C	Class 1 <sup>1)</sup>	90 s	0628 0020
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term up to +280°C, TC Type K, Fixed cable 1.2 m		-60 to +130 °C	Class 2 <sup>1)</sup>	5 s	0602 4592
Spare meas. head for pipe wrap probe, TC Type K		-60 to +130 °C	Class 2 <sup>1)</sup>	5 s	0602 0092
Clamp probe for measurements on pipes, pipe diameter 15 to 25 mm (max. 1"), meas. range short-term up to +130°C, TC Type K, Fixed cable 1.2 m		-50 to +100 °C	Class 2 <sup>1)</sup>	5 s	0602 4692
<b>Food probes</b>					
Waterproof food probe made of stainless steel (IP65), TC Type K, Fixed cable 1.2 m		-60 to +400 °C	Class 2 <sup>1)</sup>	7 s	0602 2292

1) According to norm EN 60751, the accuracy of Classes 1 / 2 refers to -40 to +1000/+1200 °C.