

We measure it.



# Infrared temperature measuring instrument

testo 826

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Non-contact measurement of surface temperature, ideally suitable for the food sector

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6:1 optics for fast and accurate measurement

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1-point laser measurement spot marking

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Combined instrument with infrared and penetration measurement

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Two adjustable limit values

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Waterproof and robust thanks to dishwasher-safe protective cover TopSafe, according to protection class IP65

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Hold function and display of min./max. values

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**HACCP from every point of view:** the testo 826 series has just been optimized. A higher resolution thanks to the new processor ensures even more accurate measurement results. This allows the temperature to be recorded to an accuracy of 0.1 °C. The min./max. display shows the limit values of the last measurement. You can measure and monitor the temperature of the goods reliably and safely.

## The advantages:

- Always monitor, measure and document temperature accurately, cleanly and quickly.
- Fulfil HACCP regulations, and be able to provide proof at any time.
- Maintain the cold chain in storage and transport.
- Reduce the quantities of spoiled goods and use resources efficiently.
- Measuring instruments calibrated according to strict regulations.
- Conform to HACCP as well as EN 13485.

## Technical data

### testo 826-T2

testo 826-T2, infrared thermometer with 1 point laser sighting, alarm function, incl. TopSafe and wall/belt holder

Part no. 0563 8282



### testo 826-T4

testo 826-T4, infrared thermometer with penetration probe, 1 point laser sighting, alarm function, incl. TopSafe, wall/belt holder, probe protection cap and frozen food drill

Part no. 0563 8284



#### General technical data

Spectral range	8 to 14 $\mu\text{m}$	
Measurement rate	0,5 s	
Distance to measurement spot	6:1	
Emissivity	0,1 to 1	
Meas. spot marking	1-point laser	
Oper. temp.	-20 to +50 °C	
Storage temp.	-40 to +70 °C	
Battery type	2 AAA micro batteries	
Battery life	Approx. 20 h	
Dimensions	148 x 34.4 x 19 mm	
Display	LCD, 1 line	
Weight	80 g	
Warranty	1 year	
Sensor types	Infrared	NTC (testo 826-T4)
Meas. range	-50 to +300 °C	-50 to +230 °C
Accuracy $\pm 1$ digit	$\pm 1.5$ °C (-20 to +100 °C) $\pm 2$ °C or 2% of mv (remaining range)	$\pm 0.5$ °C (-20 to +99.9 °C) $\pm 1$ °C or 1% of mv (remaining range)
Resolution	0.1 °C	0.1 °C
Spectral range	8 to 14 $\mu\text{m}$	
Measurement rate	0,5 s	1,25 s

## Accessories

#### Accessories for measuring instrument testo 826-T2 + testo 826-T4

#### Part no.

ISO calibration certificate/temperature for air/immersion probes, calibration point -18°C	0520 0061	
ISO calibration certificate/temperature for air/immersion probes, calibration point 0°C	0520 0062	
ISO calibration certificate/temperature For air/immersion probes, calibration points -18°C; +60°C	0520 0043	
ISO calibration certificate/temperature for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001	
ISO calibration certificate/temperature infrared thermometers, calibration points -18°C, 0°C, +60°C	0520 0401	
ISO calibration certificate temperature Infrared thermometers, calibration points 0°C, +60°C	0520 0452	

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# Infrared temperature measuring instrument

**testo 830 – Fast, non-contact measurement of surface temperature**

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Laser measurement point marker and large optics for exact measurement even at greater distances

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Fast recording of measurement values at two measurements per second

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Adjustable emissivity

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Two adjustable alarm limit values

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Good handling thanks to ergonomic "pistol design"

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Hold function and display of min./max. values

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The testo 830 is a universally applicable infrared thermometer for non-contact measurement of surface temperatures in trade and industry. Thanks to a new processor, and therefore better resolution, even more precise measurements are now possible. Temperature can now be recorded to an accuracy of 0.1 °C. Thanks to the min./max. function, the limit values of the last measurement can be displayed and even better monitored.

The testo 830 infrared thermometer in brief:

**testo 830-T1** with 1-point laser measurement spot marking and 10:1 optics.

**testo 830-T2** with 2-point laser measurement spot marking and 12:1 optics.

**testo 830-T3** with 2-point laser measurement spot marking specially for temperature measurement on surfaces with a small diameter.

**testo 830-T4** with 2-point laser measurement spot marking and 30:1 optics. This instrument measures the surface temperature even of smaller objects at a safe distance. External temperature probes can be connected.

# Infrared temperature measuring instruments

## testo 830

### Infrared thermometer with 1-point laser sighting

#### testo 830-T1

testo 830-T1, infrared thermometer, 1 point laser sighting, 10:1 optics, adjustable limit values, alarm function, incl. Batteries and factory calibration certificate

Part no. 0560 8311



### Infrared thermometer with 2-point laser sighting and connection for external probes

#### testo 830-T2

testo 830-T2, infrared thermometer, 2-point laser sighting, 12:1 optics, adjustable limit values, alarm function, connection of external probes, incl. Batteries and factory calibration certificate

Part no. 0560 8312



The fast and universal infrared thermometer with 1-point laser sighting and 10:1 optics in ergonomic "pistol design".

- Fast readings
- Laser sighting
- Adjustable alarm limits
- Audible and visual alarm if limits are exceeded
- User-friendly thanks to "pistol design"
- Backlit display
- Adjustable emission factor (0.1 to 1.0)

#### testo 830-T2 Set

Set testo 830-T2, infrared thermometer with protective leather case, incl. cross-band surface probe, Batteries and factory calibration certificate

Part no. 0563 8312

The fast and versatile infrared thermometer with 2-point laser marking and 12:1 optics. Possibility of connecting an external Type K probe for contact measurement.

In addition to the benefits of testo 830-T1:

- 2-point laser sighting
- Contact measurement with connectable temperature probe
- Emissivity determination with external TC probe

# Infrared temperature measuring instruments

## testo 830

### Infrared thermometer with close focus optics for measuring small objects

#### testo 830-T3

testo 830-T3, infrared thermometer with close focus optics, 2-point laser sighting, adjustable limit values, alarm function, contact temperature probe attachable, incl. Batteries and factory calibration certificate

Part no. 0560 8303



The fast infrared thermometer testo 830-T3 is especially suited to temperature measurements on surfaces with a small diameter. A two-point laser marks the measurement point exactly.

- Small measurement point of 2 mm, distance 25 mm
- °C contact measurement with attachable TC probe
- Backlit display
- Audible and optical alarm when limit values are exceeded
- Emissivity adjustable 0.1 to 1.0

### Infrared thermometer with 30:1 optics for exact measurement at a distance

#### testo 830-T4

testo 830-T4, infrared thermometer, 2-point laser sighting, 30:1 optic, adjustable limit values, alarm function, connection of external probes, incl. Batteries and factory calibration certificate

Part no. 0560 8314



#### Set testo 830-T4

Set testo 830-T4, infrared thermometer with protective leather case, incl. cross-band surface probe, battery and factory calibration certificate

Part no. 0563 8314

The fast and versatile infrared thermometer with 2-point laser marking and 30:1 optics. The surface temperature, also of smaller objects, can be measured at a safe distance. The diameter of the measurement spot is only 36 mm at a distance of 1 m. Possibility of connecting external temperature probes.

- 30:1 optics for measuring temperature at a distance, even on small objects
- °C contact measurement with connectable TC probe
- Emissivity determination with external temperature probe
- Input of upper and lower limit value
- Audible and optical alarm when limit values are exceeded
- Display illumination

# Technical data

## Common technical data for all versions

Spectral range	8 to 14 $\mu\text{m}$
Emissivity	Adjustable 0.1
Storage temp.	-40 to +70 $^{\circ}\text{C}$
Oper. temp.	-20 to +50 $^{\circ}\text{C}$

Battery type	9V block battery
Battery life	15 h
Weight	200 g
Dimensions	190 x 75 x 38 mm
Material/Housing	ABS

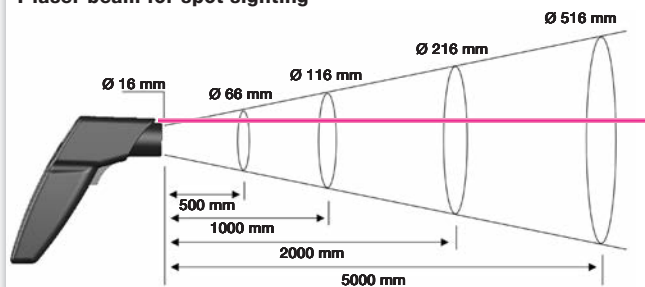
## Varying technical data

	testo 830-T1	testo 830-T2	testo 830-T3	testo 830-T4
<b>Meas. range</b>				
Infrared	-30 to +400 $^{\circ}\text{C}$	-30 to +400 $^{\circ}\text{C}$	-25 to +400 $^{\circ}\text{C}$	-30 to +400 $^{\circ}\text{C}$
Type K (NiCr-Ni)	–	-50 to +500 $^{\circ}\text{C}$	-50 to +500 $^{\circ}\text{C}$	-50 to +500 $^{\circ}\text{C}$
<b>Accuracy <math>\pm 1</math> digit</b>				
Infrared	$\pm 1.5^{\circ}\text{C}$ or 1.5 % of mv (+0.1 to +400 $^{\circ}\text{C}$ ) $\pm 2^{\circ}\text{C}$ or $\pm 2$ % of mv (-30 to 0 $^{\circ}\text{C}$ ) the higher value applies	$\pm 1.5^{\circ}\text{C}$ or $\pm 1.5$ % of mv (+0.1 to +400 $^{\circ}\text{C}$ ) $\pm 2^{\circ}\text{C}$ or $\pm 2$ % of mv (-30 to 0 $^{\circ}\text{C}$ ) the higher value applies	$\pm 1^{\circ}\text{C}$ (-20 to +100 $^{\circ}\text{C}$ ) $\pm 2^{\circ}\text{C}$ or $\pm 2$ % of mv (remaining range)	$\pm 1.5^{\circ}\text{C}$ (-20 to 0 $^{\circ}\text{C}$ ) $\pm 2^{\circ}\text{C}$ (-30 to -20,1 $^{\circ}\text{C}$ ) $\pm 1^{\circ}\text{C}$ or 1 % of mv (remaining range)
Type K (NiCr-Ni)	–	$\pm 0.5^{\circ}\text{C}$ +0.5% of mv	$\pm 0.5^{\circ}\text{C}$ +0.5% of mv	$\pm 0.5^{\circ}\text{C}$ +0.5% of mv
<b>Resolution</b>	0.1 $^{\circ}\text{C}$	0.1 $^{\circ}\text{C}$	0.5 $^{\circ}\text{C}$	0.1 $^{\circ}\text{C}$
<b>Measurement rate</b>				
Infrared	0.5 s	0.5 s	0.5 s	0,5 s
Type K (NiCr-Ni)	–	1.75 s	1.75 s	1.75 s
<b>Meas. spot marking</b>	1-point laser	2-point laser	2-point laser	2-point laser
<b>Distance to measurement spot</b>	10:1	12:1	2.5:1 2 mm @ 25 mm (90%)	30:1 (typical at a distance of 0.7 m to the measurement object 24 mm @ 700 mm (90%))

# Optics

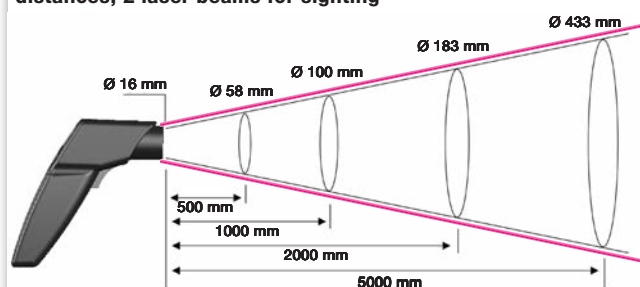
## testo 830-T1

10:1 standard optics,  
1 laser beam for spot sighting



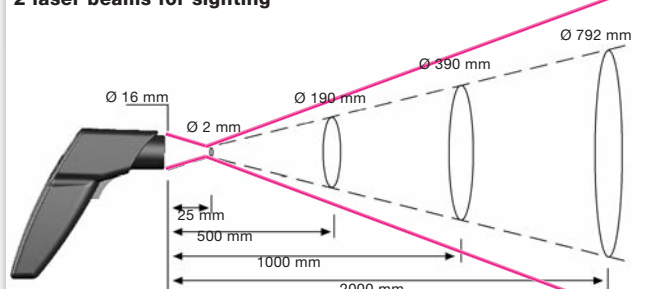
## testo 830-T2

Accurate 12:1 optics enable accurate measurements over great distances, 2 laser beams for sighting



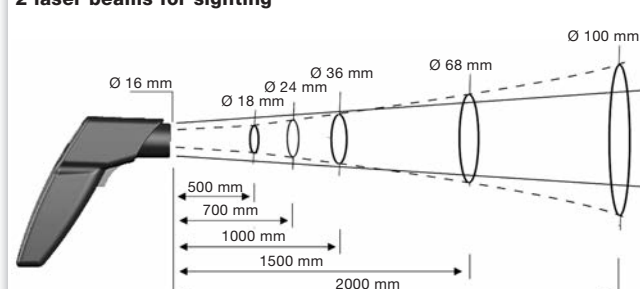
## testo 830-T3

Small measurement point of 2 mm, distance 25 mm,  
2 laser beams for sighting



## testo 830-T4

Distance to measurement spot 30:1,  
2 laser beams for sighting



# Accessories

### Accessories for all testo 830 versions

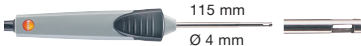

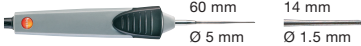
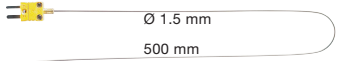

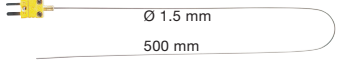
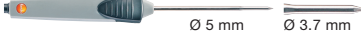
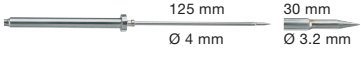

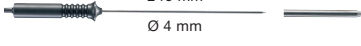
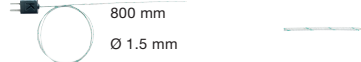
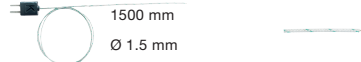
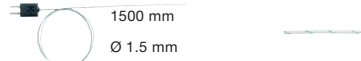
### Part no.

Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), E = 0.95, temperature resistant to +250 °C	0554 0051	
Leather case to protect measuring instrument, including belt holder	0516 8302	
9V rech. battery for instrument, instead of battery	0515 0025	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	
ISO calibration certificate/temperature, infrared thermometer; calibration points +60°C; +120°C; +180°C	0520 0002	

### Accessories for testo 830-T2 / -T3 / -T4

ISO calibration certificate/temperature, meas. instr. with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071	
ISO calibration certificate/temperature, for air/immersion probes, calibration point +60°C	0520 0063	
ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001	
ISO calibration certificate/temperature, Meas. instr. with air/immersion probe; cal. points 0°C; +150°C; +300°C (Applies only to immersion/penetration probe 0602 2693)	0520 0021	

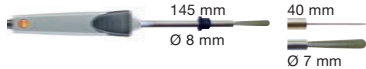
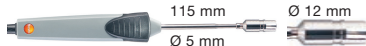
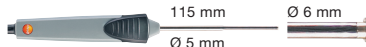

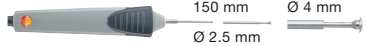
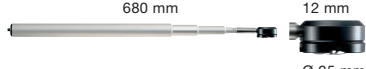


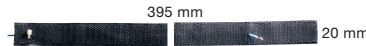



# Probes testo 830-T2 / -T3 / -T4

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*	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*	2 s	0602 0593
Fast-action, waterproof immersion/penetration probe, TC Type K (Calibration not possible over +300 °C), Fixed cable 1.2 m		-60 to +800 °C	Class 1*	3 s	0602 2693
Immersion tip, flexible, TC Type K		-200 to +1000 °C	Class 1*	5 s	0602 5792
Immersion measurement tip, flexible, for measurements in air/exhaust gases (not suitable for measurements in smelters), TC Type K		-200 to +1300 °C	Class 1*	4 s	0602 5693
Immersion tip, flexible, TC Type K		-200 to +40 °C	Class 3*	5 s	0602 5793
Waterproof immersion/penetration probe, TC Type K, Fixed cable 1.2 m		-60 to +400 °C	Class 2*	7 s	0602 1293
<b>Food probes</b>					
Waterproof food probe made of stainless steel (IP65), TC Type K, Fixed cable		-60 to +400 °C	Class 2*	7 s	0602 2292
Robust food probe with special handle, IP 65, reinforced cable (PUR), T/C Type K, Fixed cable		-60 to +400 °C	Class 1*	6 s	0602 2492
Waterproof robust immersion/penetration probe with metal protection hose Tmax +230 °C, e.g. for monitoring temp. in cooking oil, T/C Type K, Fixed cable		-50 to +230 °C	Class 1*	15 s	0628 1292
<b>Thermocouples</b>					
Thermocouple with TC adapter, flexible, 800mm long, fibre glass, TC Type K		-50 to +400 °C	Class 2*	5 s	0602 0644
Thermocouple with TC adapter, flexible, 1500mm long, fibre glass, TC Type K		-50 to +400 °C	Class 2*	5 s	0602 0645
Thermocouple with TC adapter, flexible, 1500mm long, PTFE, TC Type K		-50 to +250 °C	Class 2*	5 s	0602 0646

\*According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (Type K), Class 2 to -40 to +1200 °C (Type K), Class 3 to -200 to +40 °C (Type K)



# Probes testo 830-T2 / -T3 / -T4

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Part no.
<b>Surface probes</b>					
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*	5 s	0602 0193
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*	3 s	0602 0393
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*	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*	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*	20 s	0602 0693
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*	3 s	0602 2394
Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K, Fixed cable		-50 to +170 °C	Class 2*	150 s	0602 4792
Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K, Fixed cable		-50 to +400 °C	Class 2*		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		-50 to +120 °C	Class 1*	90 s	0628 0020
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term to +280°C, TC Type K, Fixed cable		-60 to +130 °C	Class 2*	5 s	0602 4592
Spare meas. head for pipe wrap probe, TC Type K		-60 to +130 °C	Class 2*	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		-50 to +100 °C	Class 2*	5 s	0602 4692

\*According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (Type K), Class 2 to -40 to +1200 °C (Type K), Class 3 to -200 to +40 °C (Type K)



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# Infrared temperature measuring instrument

**testo 831 – Infrared thermometer for distance measurements**



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Non-contact measurement of surface temperature, ideally suitable for the food sector

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2-point laser measurement point marker and 30:1 optics

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Exact measurements even at greater distances

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Large measuring range from -30 to +210 °C

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Hold-function and display of min./max. values

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Two adjustable alarm limit values

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Also available as a set with the core thermometer testo 106

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The testo 831 is an infrared thermometer for distance measurement. Thanks to its 30:1 optics, the measurement point diameter is only 3.6 cm at a distance of 1 m. This allows smaller objects such as yoghurt pots to be conveniently measured at a distance. Thanks to a 2-point laser marker, the diameter of the measurement point is displayed exactly, avoiding measurement errors. At two measurements per second, the testo 831 is so fast that scans of palettes or refrigerated shelving can be carried out.

## **Set testo 831 and testo 106**

For certain temperature measurements in the food sector, it is necessary to carry out an additional core temperature measurement. For this purpose, Testo offers an economic set consisting of the testo 831 and the proven core thermometer testo 106.

## Technical data / Accessories

### testo 831

testo 831, infrared thermometer, 2-point laser sighting, 30:1 optics, belt holder, incl. Batteries and factory calibration certificate

Part no. 0560 8316



#### Sensor type

#### Infrared

Meas. range	-30 to +210 °C
Accuracy ±1 digit	±1,5 °C or ±1,5% of mv (-20 to +210 °C ) ± 2 °C or ±2% of mv (remaining range )
Resolution	0,1 °C
Spectral range	8 to 14 µm

#### General technical data

Measurement rate	0,5 s
Distance to measurement spot	30:1
Emissivity	Adjustable 0.1 to 1.0
Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +70 °C
Battery type	9V block battery
Battery life	15 h
Display	Illuminated LCD
Protection class	IP30
Dimensions	190 x 75 x 38 mm
Weight	200 g
Warranty	1 year

### Set with testo 831 and testo 106

Set with testo 831 and testo 106: infrared thermometer, belt holder, incl. Batteries and factory calibration certificate. testo 106 penetration thermometer, incl. TopSafe, belt holder, incl. batteries

Part no. 0563 8315



#### Accessories

#### Part no.

#### Accessories for measuring instrument

ISO calibration certificate/temperature, infrared thermometers, calibration points -18°C, 0°C, +60°C	0520 0401	
ISO calibration certificate temperature, Infrared thermometers, calibration points 0°C, +60°C	0520 0452	
9V rech. battery for instrument, instead of battery	0515 0025	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	

We measure it.



# Infrared thermometer

**testo 835 – fast, accurate  
infrared measuring instruments  
for trade and industry**

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Measure safely and accurately even at high temperatures

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4-point laser shows the exact measuring range, preventing incorrect measurements

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Safe measurements from a long distance, thanks to 50:1 optics

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Integrated emissivity measurement for absolute measuring reliability

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Patented surface moisture measurement (testo 835-H1)

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Convenient menu guidance with icons and joystick

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Measuring value and location memory, and data analysis on the PC with free PC software "EasyClimate"

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°C

%RH

Take advantage of the benefits the testo 835 series has to offer, in virtually all sectors of trade and industry: e.g. monitoring wall temperature and humidity, inspecting air conditioning and ventilation systems, the maintenance of industrial systems or the quality control of industrially manufactured products.

Testo infrared measuring technology, which delivers first-class results even at long distance, is particularly helpful when monitoring the temperature of objects that are small, moving, difficult to access or extremely hot. The many features increase the room for manoeuvre, for example in the building trade when carrying out surface moisture measurement via infrared, or in the metal, glass and ceramics industry when measuring temperatures up to 1500 °C. So you can be certain of having everything under control and of safeguarding your standards of quality at all times.

## Ordering data

### testo 835-T1

#### Get started in the field of intelligent infrared measuring technology

Maximum safety and precision when measuring the temperature of smaller objects from a reasonable distance, e.g. monitoring wall temperature, troubleshooting in heating and air conditioning systems, or the quality control of industrially manufactured products.

### testo 835-T2

#### The pro when it comes to high temperatures

Measure precise temperatures of up to 1500 °C from a safe distance thanks to its extended temperature measuring range, e.g. when monitoring product temperature in the glass, ceramics and metal industry.

### testo 835-T1

testo 835-T1, infrared temperature measuring instrument, 4-point laser marking, measurement data administration, PC software, incl. batteries and calibration protocol

Part no. 0560 8351



### testo 835-T2

testo 835-T2, infrared high temperature measuring instrument, 4-point laser marking, measurement data administration, PC software, incl. batteries and calibration protocol

Part no. 0560 8352



### testo 835-H1

#### Special instrument with integrated humidity module

Use its unique, patented infrared surface moisture measurement feature to detect the risk of mould in building fabrics early enough, measure humidity or check the dew point distance, for example.

### testo 835-H1

testo 835-H1, infrared temperature measuring instrument, 4-point laser marking, measurement data administration, PC software, humidity module, incl. batteries and calibration protocol

Part no. 0560 8353



# Technical data

	testo 835-T1	testo 835-T2	testo 835-H1
Sensor type Infrared			
Optics	50:1 (regarding the distance of 2.0 m to measuring object typically) + opening diameter of the sensor (24 mm)		
Meas. spot marking	4 point laser		
Spectral range	8 to 14 µm		
Meas. range	-30 to +600 °C	-10 to +1500 °C	-30 to +600 °C
Accuracy ±1 digit	±2,5 °C (-30,0 to -20,1 °C ) ±1,5 °C (-20,0 to -0,1 °C ) ±1,0 °C (+0,0 to +99,9 °C ) ±1% of mv (remaining range )	±2,0 °C or ±1% of mv	±2,5 °C (-30,0 to -20,1 °C ) ±1,5 °C (-20,0 to -0,1 °C ) ±1,0 °C (+0,0 to +99,9 °C ) ±1% of mv (remaining range )
Resolution	0,1 °C	0,1 °C (-10,0 to +999,9 °C ) 1 °C (+1000,0 to +1500,0 °C )	0,1 °C
Sensor type Type K (NiCr-Ni)			
Meas. range	-50 to +600 °C	-50 to +1000 °C	-50 to +600 °C
Accuracy ±1 digit	±(-0.5 °C +0.5% of mv)		
Resolution	0.1 °C		
Sensor type Testo humid. sensor, cap.			
Meas. range	–		0 to 100 %RH
Accuracy ±1 digit	–		±2 %RH ±0.5 °C
Resolution	–		0.1 °C 0.1 %RH 0.1 °Ctd
General technical data			
Emissivity	0.10 to 1.00 (steps 0.01)		
Emissivity table	20 values storable		
Laser spot	On / off		
Memory	200 values storable		
Alarm (upper/lower limit)	IR temperature, TC temperature		
Alarm signal	audible, optical		
Oper. temp.	-20 to +50 °C		
Storage temp.	-30 to +50 °C		
Material/Housing	ABS + PC		
Dimensions	193 x 166 x 63 mm		
Weight	514 g		
Battery type	3 batteries Type AA (or USB operating with PC-Software)		
Battery life	25 h (typical 25°C without laser and backlight) 10 h (typical 25°C without backlight)		
Display	Dot matrix		
Auto-Off (disabled for continuous measurement and USB connection)	Backlight: 30 s Instrument: 120 s		
Standards	EN 61326-1:2006		
Warranty	1 year		



# Accessories

Accessories	Part no.	
Bracket	0440 0950	
USB connection cable instrument to PC	0449 0047	
Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm)	0554 0051	
Silicone heat paste (14g), Tmax = +260°C	0554 0004	
ISO calibration certificate/temperature; infrared thermometer; calibration points +60°C; +120°C; +180°C	0520 0002	
ISO calibration certificate/temperature; infrared thermometers, calibration points -18°C, 0°C, +60°C	0520 0401	
ISO calibration certificate/temperature; meas. instr. with air/immersion probe; cal. points 0°C; +150°C; +300°C	0520 0021	
Aluminium case for testo 835	0516 8450	
PC software "EasyClimate" for downloading from <a href="http://www.testo.com/download">www.testo.com/download</a>	-	



## Information on contact measurement

- Observe the minimum penetration depth for immersion/penetration probes: 10x probe diameter
- Avoid using in aggressive acids or alkalis

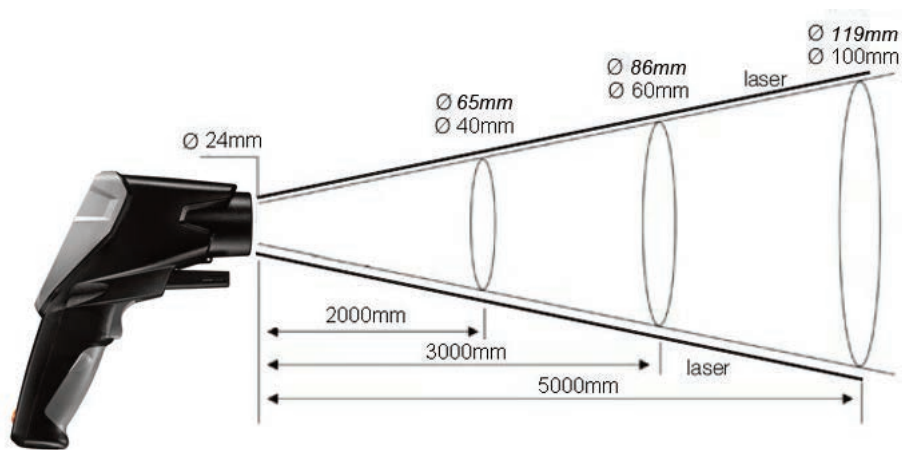
### Measuring range, distance

Depending on the distance of the measuring instrument from the measurement object, a specific measuring range is recorded.

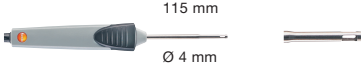
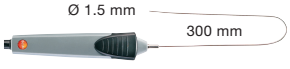
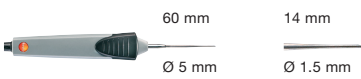


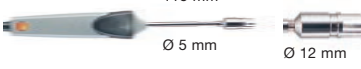

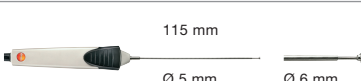

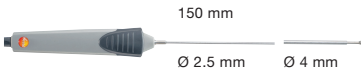
### Measuring lens (ratio of distance : measuring range)

*In italics = laser*

Not in italics = measuring range

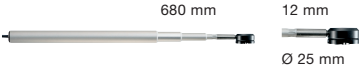

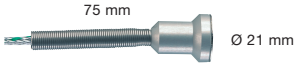
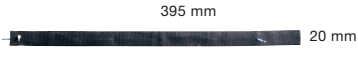
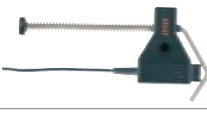
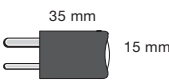

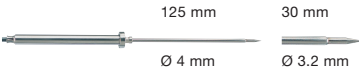


# Probes

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 (available only until 31. Dec. 2012)		-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.



We measure it.



# 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  $\pm 0.75\text{ }^{\circ}\text{C}$  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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°C

%RH

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	1 year

	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

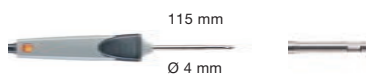

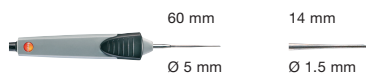

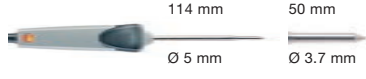
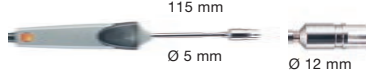
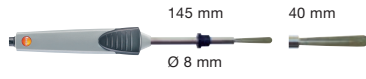
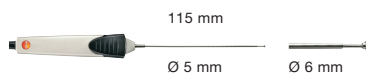

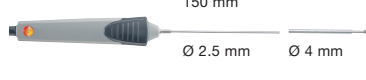
#### Accessories

#### Part no.

##### Accessories for measuring instrument

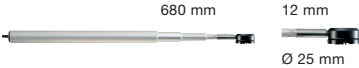


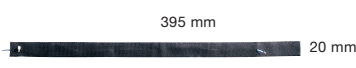



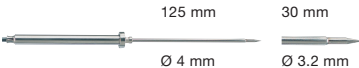
Humidity module, upgradeable for testo 845	0636 9784	
Plug-in mains adapter, 5 VDC 500 mA with European adapter, 100-250 VAC, 50-60 Hz	0554 0447	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle 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.