



Committing to the future

2011

## Measurement Engineering for Restaurants, Catering and Supermarkets







# Testo measuring instruments – The important ingredient for good food

Of course your customers expect from you food products which are fresh and food which is prepared with care and is wholesome. To achieve this, ambient conditions on display surfaces, in refrigerated cabinets and storage rooms must be monitored along with the temperatures of cooking units or the condition of the oil in a deep-fat fryer.

Testo is here to help you with all your measurement tasks. We make a point of following closely all the latest developments in the monitoring of foodstuffs. In this way, we are always in a position to offer up-to-date solutions optimised to suit your applications. It's no wonder that tens of thousands of Testo instruments are used regularly by supermarkets, food specialist stores, restaurants and catering services.

## Measurement solutions for field use

The freshness of food products and the digestibility of food is difficult to judge. Measurements can help you make decisions. The procedures are usually time-consuming and often can only be carried out in the laboratory. Testo offers user-friendly measurement engineering solutions suitable for daily use. One good example are the new pH probes which work with a gel electrolyte as a reference medium for pH measurement and, unlike conventional sensors, are leak-proof, maintenance-free and

not affected by dust and dirt particles. A real highlight is the electronic cooking oil tester which provides you with reliable information within seconds about the state of the oil in a hot deep-fat fryer. The advantage for you is that you can determine the flavour of your deep-fried food and also use cooking oil sparingly. Analysis of the state of the oil based on polarisable substances is recognised internationally but has been mainly carried out in laboratories up to now or was determined via test sets for which replacements had to be purchased.

## Fully reliable and efficient

Measuring instruments must be accurate at all times. We offer you well-engineered instruments which have not only been subjected to stringent tests during the development phase but have undergone comprehensive year long field tests prior to being released on the market. The instruments also have to be calibrated to ensure food safety. Calibration should be carried out annually to augment legal certainty. Our calibration laboratories are held in high esteem internationally and are also approved for calibrations on behalf of the Deutsche Akkreditierungsstelle DAkkS (successor organization of the DKD German Calibration Service).

### Documenting parameters systematically

You have to document your measurements so that they are verifiable. Many of Testo's instruments can be read out with a practical fast printer via infrared. Measurement data is documented practically automatically. The data in our dataloggers, with which you can record temperatures and air humidity in storerooms, freezers or display surfaces, for example, can also be collected by a „data collector“ and then sent to a PC. A convenient method to collect data from different sites.

### Better measurements with better equipment

Often, it is the right accessory which makes a measurement engineering solution complete. Testo offers a wide range of accessories for its instruments which, in turn, helps you to complete your measurement tasks efficiently. The range extends from numerous different probe types and designs, optional wireless or conventional probes via a fast printer and data collector to a dishwasher-safe TopSafe protection case with which you can protect your instrument from dirt, impact and moisture.

### Learning changes

What was that again – who has to measure with calibrated measuring instruments? What exactly is the connection between germ multiplication and temperature?

If you need answers to the above questions, just give us a call. We will do our best to answer them.



## Top engineering for first class products



Horst Zahner,  
Managing Director  
and Company  
founder,  
Traiteur GmbH,  
Freiburg, Germany

Zahner Traiteur GmbH in Freiburg, Germany was founded in the year 1970 and over the years has developed into a modern production business in the food sector. The high levels of product warranty, reliability and quality have been consistently improved on over the past 30 years of the company's existence. The company is one of the most renowned in the delicatessen and catering segment. More than 90 employees work to supply top products on a daily basis. 36 small haulage contractors are responsible for delivering prepared goods every day.

We spoke to Managing Director and Company founder Horst Zahner:

„You cannot compromise on quality – we cannot just sign and that's it – we live it every day with our whole team; regardless of whether it is catering, delicatessen dishes, party service or our fresh pasta.

Closed quality assurance systems, which can be documented, are an indispensable requisite for our continued market success. We recognised at an early stage that Testo speaks our language exactly. No other supplier offers the range of products and this level of efficiency. As you can imagine, in our business not only is highest quality important, punctuality and speed are also top priorities and Testo's product line accommodates us with user-friendly operation, manageability and robustness. Now, that's what I call field-oriented measurement engineering.

By the way, the ever resourceful Testo developers really hit the mark with their logger systems. Now we can monitor transport of our highly sensitive products non-stop; nothing is left to chance and documentation of the measurement data just couldn't be easier.

Over the last few years, we have started sending our employees regularly to Testo for training. Not only do we gain important insights into the optimum use of Testo measurement engineering, but we also learn how we can quickly adapt to the latest legal requirements.

That's what I call all-inclusive – Keep up the good work Testo – after all, we quality fanatics have to stick together...”



# Exactly the right instrument





for every requirement





## Temperature measurement – fast and easy

### Mini thermometer

The quick-action immersion/penetration thermometer is ideal for measuring the temperature in air, soft or powdery substances and liquids.

The surface thermometer has a widened measurement tip especially for surface measurements.

- Easy to read thanks to large display
- Can be used anywhere

#### Mini thermometer 1

up to +150 °C, length 133 mm

Part no. 0560 1110

#### Mini thermometer 2

up to +250 °C, length 213 mm

Part no. 0560 1111

#### Mini surface thermometer 3

up to +300 °C, length 120 mm

Part no. 0560 1109

1 + 2

Immersion/penetration probe Ø 3.5 mm

3

Surface temperature probe with widened measurement tip Ø 15 mm, robust design

Technical data	1	2	3
Meas. range	-50 to +150 °C	-50 to +250 °C	-50 to +300 °C
Accuracy ±1 digit	±1 °C (-10 to +99.9 °C) ±2 °C (-30 to -10.1 °C) ±2% of mv (+100 to +150 °C)	±1 °C (-10 to +99.9 °C) ±2% of mv (+100 to +199.9 °C) ±3% of mv (+200 to +250 °C)	±1 °C (-30 to +250 °C) ±2 °C (remaining range)
Resolution	0.1 °C (-19.9 to +150 °C) 1 °C (remaining range)	0.1 °C (-19.9 to +199.9 °C) 1 °C (remaining range)	0.1 °C (-19.9 to +199.9 °C) 1 °C (remaining range)
Oper. temp.	-10 to +50 °C	-10 to +50 °C	-10 to +50 °C



Fast spot check measurements

#### Accessories Ordering data Part no.

Button cell batteries, Type LR 44, 1.5 Volt (4 off) 0515 0032

## Temperature measurement - accurate and super-fast

### testo 905-T1

One of the fastest penetration thermometers, with a broad measurement range and high accuracy

#### testo 905-T1 1

testo 905-T1: penetration thermometer incl. attachment clip, battery

Part no. 0560 9055

### testo 905-T2

The surface thermometer in professional quality with a sprung thermocouple measurement head, very fast reaction time and high accuracy.

#### testo 905-T2 2

testo 905-T2: surface thermometer with cross-band probe, incl. attachment clip, battery

Part no. 0560 9056

Technical data	1	2
Meas. range	-50 to +350 °C Short-term to +500 °C	-50 to +350 °C Short-term to +500 °C
Accuracy ±1 digit	±1 °C (-50 to +99.9 °C) ±1% of mv (remaining range)	±(1 °C ±1% of mv)
Resolution	0.1 °C	Battery life 1000 h
Oper. temp.	0 to +40 °C	Storage temp. -20 to +70 °C

Accessories testo 905-T1	Part no.
ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001

Accessories testo 905-T2	Part no.
ISO calibration certificate/temperature, meas. instr. with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071

1

testo 905-T1: Immersion/penetration probe, Ø 3mm with pro sensor (thermocouple Type K)

2

testo 905-T2: sprung thermocouple cross-band Ø 12 mm adapts to any surface



Checking hotplates and griddles

## Temperature measurement – fast and easy

### Waterproof mini thermometer

Fast spot check temperature measurement with the watertight mini thermometer is an important topic in the food sector. Thanks to the large, easily legible display, temperature checks are possible even under bad light conditions.

- Easy to read thanks to large display
- Can be used anywhere

#### Waterproof mini thermometer

up to +230 °C, length 133 mm,  
Protective sleeve for probe shaft

Part no. 0560 1112

#### Technical data

Meas. range	-40 to +230 °C
Accuracy	±1 °C (-20 to +99.9 °C)
±1 digit	±2% of mv (+100 to +199.9 °C) ±3% of mv(+200 to +230 °C)
Resolution	0.1 °C (-19.9 to +199.9 °C) 1 °C (remaining range)
Oper. temp.	-10 to +50 °C

Immersion/penetration  
probe, Ø 3.5 mm



Spot checks at a food counter

#### Accessories Ordering data

Button cell batteries, Type LR 44, 1.5 Volt (4 off)

#### Part no.

0515 0032

## Ambient condition measurements - versatile and easy

### testo 605-H1

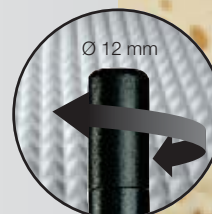
The thermo-hygrometer you can bend. Small, compact and accurate. The long-term stable sensor guarantees correct measurement results even after years.

#### testo 605-H1

testo 605-H1: thermohygrometer with  
duct holder, incl. attachment clip and  
battery

Part no. 0560 6053

- Dewpoint calculation from  
-20 to +50 °Ctd
- Long-term stable Testo humidity  
sensor
- Ideal for measurements in ducts
- Display can be angled for easy  
readout of measurement values



Sensor protection due to  
rotatable protective cap,  
probe shaft 125 mm long



With flexible joint

Monitoring air humidity

#### Technical data

Meas. range	+5 to +95 %RH 0 to +50 °C -20 to +50 °C td		
Accuracy ±1 digit	±3 %RH / ±0.5 °C		
Resolution	0.1 %RH / 0.1 °C	Battery life	Approx. 1000 h
Oper. temp.	0 to +50 °C	Storage temp.	-20 to +70 °C

#### Accessories Ordering data

ISO calibration certificate/humidity, Calibration point  
75.3%RH at +25°C

#### Part no.

0520 0096

ISO calibration certificate humidity, Calibration points  
11.3 %RH and 75.3 %RH at +25°C

0520 0006



## testo 103 - The smallest folding thermometer

### Convenient for measurements of all types...

- At 11 cm the smallest folding thermometer of its class.
- It fits into any hand and any pocket.

### Practical...

- It is quickly ready to hand and always available.
- Its narrow probe tip is ideal for spot check measurements.
- It has an easy-to-clean white ABS housing, ensuring hygienically sound temperature measurements.

### Strong in application...

- Fulfills protection class IP55.
- Is equipped with a robust probe – an allround talent!

#### testo 103 folding thermometer

Part no. 0560 0103

#### Technical data

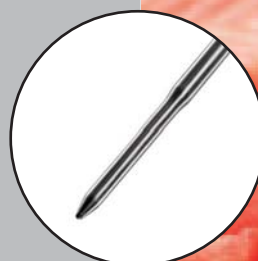
Measurement unit	Temperature (°C / °F)
Sensor type	NTC
Measuring range	-30 to +220 °C
Accuracy	±0.5 °C (-30 to +1. + 99.9 °C) ±1% of the measurement value (+100 to +220 °C)
Resolution	0.1 °C / °F
Operating temperature	-20 to +60 °C
Storage temperature	-30 to +70 °C
Battery type	2 x CR2032 Lithium batteries
Life	300 h (typical)
Dimensions (LxWxH)	189 x 35 x 19 mm (probe folded out)
Probe length / diameter	75 mm / ø 3 mm
Probe tip / diameter	22 mm / ø 2.3 mm
Display	LCD, 1-line, not illuminated
Response time	t <sub>99</sub> = 10 sec
Switching on/off	With folding mechanism (ca. 30°) / Auto Off after 60 mins
Housing material	ABS
Weight	49 g (incl. battery)
Protection class	IP55
Warranty	2 years
Certificate	EN 13485



A folding thermometer can be this handy.



It fits in any breast or trouser pocket.



The narrow probe tip is suitable for spot check measurements.





## testo 104 - The first waterproof thermometer which can also be folded

### Convenient for measurements of all types...

- Ideally suited to core temperature measurements thanks to a robust metal folding joint and a long, stable measurement probe...
- Protection class IP65, allows cleaning under running water and use under all conditions.

### Practical...

- The rubber-coated surface guarantees non-slip handling.
- The especially large, illuminated display allows fast and error-free readout of the measurement values.
- Thanks to the coloured strips included in delivery, you can allocate the instrument to individual persons or certain areas of work.

### Strong in application...

- Automatic final value recognition thanks to Auto-Hold and storage of min./max. values.
- The 1st thermometer which combines a folding mechanism and waterproofness.

### testo 104 folding thermometer

Part no. 0563 0104

Technical data	
Measurement unit	Temperature (°C / °F / °R)
Sensor type	NTC
Measuring range	-50 to +250 °C
Accuracy	±1.0 °C (-50 to -30.1 °C) ±0.5 °C (-30 to +99.9 °C) ±1% of the measurement value (+100 to +250 °C)
Resolution	0,1 °C / °F / °R
Operating temperature	-20 to +60 °C
Storage temperature	-30 to +70 °C
Battery type	2 x AAA batteries
Life	100 h (typical)
Dimensions (LxWxH)	265 x 48 x 19 mm (probe folded out)
Probe length / diameter	106 mm / ø 3 mm
Probe tip / diameter	32 mm / ø 2.3 mm
Display	LCD, 1-line, illuminated
Response time	t <sub>99</sub> = 10 sec
Further functions	Auto Hold, Hold, Min / Max
Switching on/off	With folding mechanism (ca. 30°) / Auto Off after 60 mins
Housing material	ABS/TPE/PC, diecast zinc, stainless steel
Weight	165 g (incl. battery)
Protection class	IP65
Warranty	2 years
Certificate	EN 13485



It is particularly robust thanks to a metal facing on the front.



The testo 104 is waterproof, and thus very hygienic.



The testo 104 can be personalized using coloured strips.



## Core thermometer – fast and robust

### testo 106

The core thermometer testo 106 with a thin, robust measuring tip, excellently suited for fast core temperature checks

- Automatic recognition of final value (Auto-Hold)



Only in combination with Topsafe

Accessories Ordering data	Part no.
TopSafe (indestructible protection case), waterproof and dishwasher-safe protection case (IP67)	0516 8265
Frozen food drill, loss-proof attachment to belt clip	0554 0826
Holding clip with probe protection cap	0554 0825
ISO calibration certificate/temperature, for air/immersion probes, calibration point +60°C	0520 0063
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; 0°C	0520 0041
ISO calibration certificate/temperature, for air/immersion probes, calibration points -8°C; 0°C; +40°C	0520 0181

#### testo 106

testo 106, core thermometer incl. probe protecting cap and battery

Part no. 0560 1063

#### Set testo 106

Set testo 106, core thermometer incl. TopSafe (waterproof protective case, IP 67), belt clip, probe protecting cover and battery

Part no. 0563 1063

Waterproof and protected from impact with protective case TopSafe

Set accessories

- 1 TopSafe
- 2 Probe protecting cap
- 3 Practical belt-clip



Checking the correct temperature of sensitive foodstuffs, e.g. fish

#### Technical data

Meas. range	-50 to +275 °C		
Accuracy	±1 % of mv (+100 to +275 °C) ±1 digit	±1 °C (-50 to -30.1 °C)	
Resolution	0.1 °C	Battery life	350 h
Oper. temp.	-20 to +50 °C	Dimensions	215 x 34 x 19 mm
Storage temp.	-40 to +70 °C	Weight	80 g

## Robust one-hand thermometer – With interchangeable measurement tips

### testo 105

The robust food thermometer with interchangeable measurement tips for control measurements in abattoirs, refrigerated storerooms, lorries etc.

#### testo 105

One-hand thermometer with standard measurement tip, incl. battery and belt/wall holder

Part no. 0563 1051

#### Technical data

Probe type	NTC
Meas. range	-50 to +275 °C
Accuracy	±0.5 °C (-20 to +100 °C) ±1 digit ±1 °C (-50 to -20.1 °C) ±1 % of mv (+100.1 to +275 °C)
Resolution	0.1 °C
Storage temp.	-40 to +70 °C
Oper. temp.	-20 to +50 °C
Battery type	4 x Button cell LR44
Auto Off	10 min
Protection class	IP65
Dimensions	145 x 38 x 195 mm
Weight	139 g

- 2 user-defined limit values, visual or audible alarm
- Built-in display illumination
- Audible key feedback
- 1 line display
- Waterproof (IP 65) and robust

#### Accessories Ordering data

Standard measurement tip, 100 mm long

Part no. 0613 1051

Frozen food tip, 90 mm long

Part no. 0613 1052

Long measurement tip, 200 mm long

Part no. 0613 1053

Aluminium case for the testo 105 one-hand thermometer and accessories

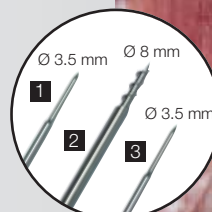
Part no. 0554 1051

Button cell batteries, Type LR 44, 1.5 Volt (4 off)

Part no. 0515 0032

ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C

Part no. 0520 0041



- 1 Standard measurement tip 100 mm
- 2 Frozen food tip 90 mm
- 3 Long measurement tip 200 mm

Easy-to-change measurement tips



Measuring core temperature on delivery of fresh meat

#### testo 105 with frozen food measurement tip

testo 105 with frozen food measurement tip, belt/wall holder and batteries

Part no. 0563 1054

#### Complete case

One-hand thermometer with standard measurement tip, frozen food tip, long measurement tip and belt/wall holder in aluminium case

Part no. 0563 1052





## Mini thermometer – With penetration probe

### Mini thermometer

The affordable mini thermometer with Min/Max alarm. Small in size but big on quality! The penetration probe is attached to the instrument (80 cm cable) and is suitable for measuring the temperature in air, in soft powdery substances and in liquids.

- Securely attached probe
- Adjustable Min/Max alarm
- Integrated clip for attachment to clothing, wall, placing in position

#### Mini thermometer

Mini thermometer, battery included

Part no. 0900 0530

#### Ordering data/Quantity discount

#### Part no.

Mini thermometer, from 5 off

Mini thermometer, from 10 off

Mini thermometer, from 25 off

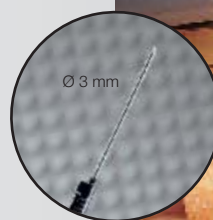
Mini thermometer, from 50 off

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



Securely attached penetration probe, 80 cm probe cable, probe pipe 190 mm long



Routine checks on cheese counters

#### Technical data

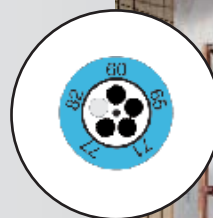
Meas. range	-50 to +150 °C	Oper. temp.	0 to +50 °C
Accuracy	±1 °C (-10 to +100 °C)	Storage temp.	-20 to +70 °C
±1 digit	±2 °C (remaining range)	Battery life	100 h
Resolution	0.1 °C (-19.9 to +150 °C)	Battery type	2 AAA micro batteries
	1 °C (-50 to -20 °C)		

## Temperature clock indicators

### testoterm clock indicators

testoterm clock indicators are self-adhesive, temperature-resistant foils with heat-sensitive elements to monitor temperature.

- Practical booklet with 10 clock indicators
- Clock indicators available on sheets from 5000 off (100 sheets of 50 off)



Actual size  
Irreversible change in colour within 2 seconds



Monitoring temperature in cooking or smoking cabinets

#### testoterm clock indicators

+40 to +54 °C

Part no. 0646 0071

+60 to +82 °C

Part no. 0646 0072

+88 to +110 °C

Part no. 0646 0073

+116 to +138 °C

Part no. 0646 0074

+143 to +166 °C

Part no. 0646 0075

+171 to +193 °C

Part no. 0646 0076

+199 to +224 °C

Part no. 0646 0077

+232 to +260 °C

Part no. 0646 0078

#### Ordering data/Quantity discount

1 to 4 booklets (with 10 each)

5 to 9 booklets (with 10 each)

10 to 19 booklets (with 10 each)

20 to 49 booklets (with 10 each)

50 to 99 booklets (with 10 each)

1000 on sheets of 50

(Minimum quantity 5000 off)

#### Technical data

Accuracy: from +43 °C to +154 °C: ±1.5 °C; from +160 °C: ±1% ±1 °C of respective temperature value  
Maximum operating temperature: corresponding to respective measuring ranges  
Storage of clock indicators: up to +65 °C: max. 9 months;  
remaining measuring ranges up to 2 years; max. storage temperature +25 °C.  
Storage in refrigerator recommended.

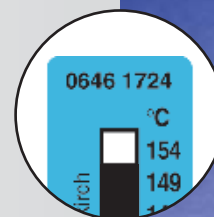


## Thermometer strips – Convenient and reliable

### testoterm strips

testoterm thermometer strips are self-adhesive foils with temperature sensitive elements for temperature control and regulation e.g. monitoring batches during cooking.

- +37 to +280 °C
  - Thermometer strips available on rolls (e.g. for labelling machines) from a minimum order quantity of 5000 off.
- Ordering options:  
1 roll of 5000 off  
5 rolls of 1000 off



Irreversible change in colour within 2 seconds



Practical booklet with 10 thermometer strips

Checks temperature in warehouses, during transport...

#### testoterm strips

+37 to +65 °C

Part no. 0646 0108

+71 to +110 °C

Part no. 0646 0916

+116 to +154 °C

Part no. 0646 1724

+161 to +204 °C

Part no. 0646 2532

+204 to +260 °C

Part no. 0646 3341

+249 to +280 °C

Part no. 0646 0005

#### Ordering data/Quantity discount

- 1 to 4 booklets (with 10 each)
- 5 to 9 booklets (with 10 each)
- 10 to 19 booklets (with 10 each)
- 20 to 49 booklets (with 10 each)
- 50 to 99 booklets (with 10 each)
- 1000 on a roll
- (minimum quantity 5000 off)
- 5000 on a roll
- Ordering option for 5000 off:
- 1 roll of 5000 off
- 5 rolls of 1000 off
- Further rolls of 1000 can be ordered

#### Technical data

Same as temperature single indicators, see below

Dimensions l x w: 50 x 18 mm or 39 x 18 mm

## Temperature single indicators – Convenient and reliable

### Single indicators

testoterm single indicators are self-adhesive temperature sensitive foils with elements to check a given maximum temperature.

- +43 to +199 °C
- Practical single indicator booklet
- Single indicators on rolls or sheets available from a minimum order quantity of 5000 off.

#### Ordering data/Quantity discount

- 1 to 4 booklets (with 50 each)
- 5 to 9 booklets (with 50 each)
- 10 to 19 booklets (with 50 each)
- 20 to 49 booklets (with 50 each)
- 50 to 99 booklets (with 50 each)

5000 on sheets

on sheets or rolls

Ordering options for rolls

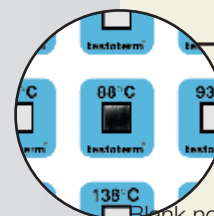
1 roll of 5000 off

5 rolls of 1000 off

In stock:

71 °C, 77 °C, 82 °C, 110 °C, 143 °C

For all additional single indicators (46/49/54/60/65/88/93/99/104/116/121/127/132/138/149/154/166/177/182/188/193/199/204/210/216/224/232/241/249/254/260 °C) the following applies: Delivery time of 6 weeks for minimum order of 10 booklets.



Irreversible change in colour within 2 seconds

#### Charge slip

Blank no.	15.3.04
No. of boiling process	384
Chamber no.	17
Beg./End of procedure	3
Final temperature	320/114
	104 °C

Temperature control, for example, during storage, transport, when analysing damage etc.

#### Single indicators

Measuring range: +46°C to +199°C

Part no. 0646 1... (...=reading)

Ordering examples:

Single indicator: +46°C: 0646 1046

Single indicator: +199°C: 0646 1199

#### Technical data

Accuracy: From +46 °C to +154 °C:  $\pm 1.5$  °C; from +160 °C:  $\pm 1\% \pm 1$  °C of respective reading  
Max. operating temperature corresponds to the respective measuring ranges

Storage of single indicators: Up to +65 °C: max. 9 months; other measuring ranges up to 2 years; max. storage temperature +25 °C. Storage in a refrigerator is recommended.

Dimensions l x w: 15 x 14 mm

## Temperature monitoring – Highly accurate

### testo 110

The highly accurate, versatile testo 110 temperature measuring instrument is ideal for the food sector on account of its optional TopSafe protection case. The engineering used is specially designed for applications in refrigerated store rooms and cabinets and for outdoors.

In addition to the wide range of conventional probes available with cable, a wireless radio probe can be used simultaneously (if radio module is used in instrument).

- Wireless measurement with radio probes possible (optional)
- Audible alarm (adjustable alarm limits)
- Displays max/min readings in 2 line, backlit display

Measurement data printout on site on Testo fast printer (optional)



Only in combination with TopSafe

### testo 110

testo 110, 1 channel temperature measuring instrument NTC, audible alarm, connection to an optional radio probe, with battery and calibration protocol

Part no. 0560 1108

#### Printer and Accessories

#### Part no.

Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries 0554 0549

Spare thermal paper for printer (6 rolls), measurement data documentation legible for up to 10 years 0554 0568

Spare thermal paper for printer (6 rolls) 0554 0569

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

#### Additional accessories

#### Part no.

9V rech. battery for instrument, instead of battery 0515 0025

Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery 0554 0025

Lithium battery, button cell, type CR 2032 for wireless probes 0515 0028

#### Transport and Protection

#### Part no.

TopSafe, protects from impact and dirt 0516 0221

Case for measuring instrument and probes 0516 0210

Transport case for meas. instr. and probes (405 x 170 x 85 mm) 0516 0201

Transport case for measuring instrument, 3 probes and accessories (430 x 310 x 85 mm) 0516 0200

#### Calibration Certificates

#### Part no.

ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C 0520 0001

DAkkS calibration certificate/temperature, meas. instr. with air/immersion probe; calibration points -20°C; 0°C; +60°C (Successor organization of the DKD) 0520 0211

ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +60°C 0520 0072

ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +120°C 0520 0073

\* TopSafe: TPU casing; TPE lid; PC stand



Inspects a refrigerated counter for sufficient refrigeration power



TopSafe, the indestructible protective case (optional)



Checks incoming goods, no annoying cables thanks to radio probe

### Recommended Set: testo 110 – Starter set

testo 110, 1 channel temperature measuring instrument NTC, audible alarm, connection to an optional radio probe, with battery and calibration protocol 0560 1108

TopSafe, protects from impact and dirt 0516 0221

Waterproof NTC immersion/penetration probe 0613 1212

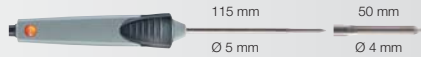
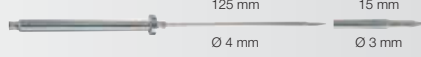
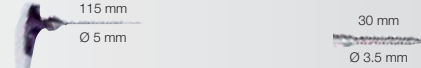
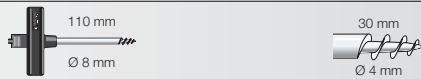
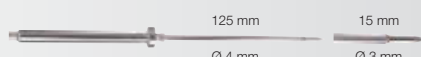

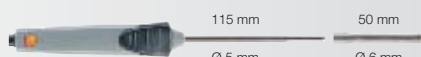
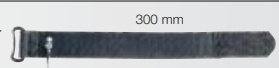
Transport case for meas. instr. and probes (405 x 170 x 85 mm) 0516 0201

#### Technical data

Probe type	NTC
Meas. range	-50 to +150 °C
Accuracy ±1 digit	±0.2 °C (-20 to +80 °C) ±0.3 °C (remaining range)
Resolution	0.1 °C
Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +70 °C
Battery type	9V block battery, 6F22
Battery life	200 h (connected probe, backlight off) 45 h (radio mode, backlight off) 68 h (connected probe, backlight always on) 33 h (radio mode, backlight always on)
Dimensions	182 x 64 x 40 mm
Weight	171 g



## Suitable probes at a glance / Option: Radio

Immersion/penetration probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Waterproof NTC immersion/penetration probe		-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	10 s	0613 1212 Conn.: Fixed cable, 1.2 m
Stainless steel NTC food probe (IP65) with PUR cable		-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 2211 Conn.: Fixed cable, 1.6 m
Robust NTC food penetration probe with special handle, reinforced PUR cable		-25 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	7 s	0613 2411 Conn.: Fixed cable
Frozen food probe NTC, corkscrew design (incl. plug-in wire)		-50 to +140 °C <sup>1)</sup>	±0.5% of mv (+100 to +140 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	20 s	0613 3211 Conn.: Plug-in cable
Stainless steel NTC food probe (IP67) with PTFE cable to +250°C		-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 3311 Conn.: Fixed cable
Air probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Efficient, robust NTC air probe		-50 to +125 °C <sup>2)</sup>	±0.2 °C (-25 to +80 °C) ±0.4 °C (remaining range)	60 s	0613 1712 Conn.: Fixed cable
Surface probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Waterproof NTC surface probe for flat surfaces		-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	35 s	0613 1912 Conn.: Fixed cable
Pipe wrap probe with Velcro for pipe diameter to max. 75 mm, T <sub>max</sub> +75°C, NTC		-50 to +70 °C	±0.2 °C (-25 to +70 °C) ±0.4 °C (-50 to -25.1 °C)		0613 4611 Conn.: Fixed cable


The measuring instrument inside TopSafe is waterproof with this probe.

1) Long-term meas. range +125 °C, short-term +140 °C  
2) Long-term meas. range +125 °C, short-term +150 °C

## Radio module for upgrading measuring instrument with radio option

Country versions	Radio freq.	Part no.
Radio module for measuring instrument, 869.85 MHz, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0188
Radio module for measuring instrument, 915.00 MHz FSK, approval for USA, CA, CL	915.00 MHz FSK	0554 0190

## Radio probes for immersion/penetration measurements

Radio immersion/penetration probes		Meas. range	Accuracy	Resolution	t <sub>99</sub>
Radio immersion/penetration probe, NTC		-50 to +275 °C	±0.5 °C (-20 to +80 °C) ±0.8 °C (-50 to -20.1 °C) ±0.8 °C (+80.1 to +200 °C) ±1.5 °C (remaining range)	0.1 °C	t <sub>99</sub> (in water) 12 s
Country versions			Radio freq.	Part no.	
Radio immersion/penetration probe, NTC, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO			869.85 MHz FSK	0613 1001	
Radio immersion/penetration probe, NTC, approval for USA, CA, CL			915.00 MHz FSK	0613 1002	

## Radio probes: General technical data

Probe type	Radio immersion/penetration probe, NTC	Radio handle	Measuring rate	Radio transmission
Battery type	2 x 3V button cell (CR 2032)	2 AAA micro batteries	0.5 s or 10 s, adjustable on handle	Unidirectional
Battery life	150 h (meas. rate 0.5 s) 2 months (meas. rate 10 s)	215 h (meas. rate 0.5 s) 6 months (meas. rate 10 s)	Radio coverage	Oper. temp. -20 to +50 °C
			Up to 20 m (without obstructions)	Storage temp. -40 to +70 °C
				Protection class IP54

## Calibratable Temperature Measuring Instrument

### testo 112

testo 112 combines two temperature measuring instruments in one. In addition to the complete NTC probe range, Pt100 probes can also be attached. In this way, the temperature range of -50 to +300 °C is covered to the highest accuracy level. testo 112 is therefore the ideal instrument for food measurements ranging from the deep-freeze sector to the oil temperature in deep-fat fryers.

The backlit display makes it easy to read in environments with poor lighting. Minimum and maximum readings can be called up at the touch of a button. It is possible to print readings on site, for documentation purposes, on a fast printer (accessory).

- Large, backlit display with 14 mm high characters
- Call up max/min values at the touch of a button

Data printout on site on the Testo fast printer (optional)



TopSafe, indestructible protection case (optional)



Monitors temperature in refrigerated counter

### testo 112

testo 112, 1 channel temperature measuring instrument NTC/Pt100, calibratable, with battery

Part no. 0560 1128

14.40

92.03

PTB Type approval






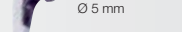

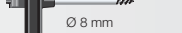

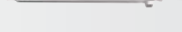

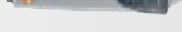

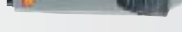

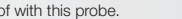
Printer and Accessories	Part no.
Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries	0554 0549
Spare thermal paper for printer (6 rolls)	0554 0568
Spare thermal paper for printer (6 rolls)	0554 0569
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH 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
Additional accessories and spare parts	Part no.
9V rech. battery for instrument, instead of battery	0515 0025
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025
Transport and Protection	Part no.
TopSafe, protects from impact and dirt	0516 0220
Transport case for meas. instr. and probes (405 x 170 x 85 mm)	0516 0201
Transport case for measuring instrument, 3 probes and accessories (430 x 310 x 85 mm)	0516 0200
Calibration Certificates	Part no.
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 surface probe; calibration points +60°C; +120°C; +180°C	0520 0071

\* TopSafe: TPU housing; TPE lid; PC stand

Technical data		
Probe type	NTC	Pt100
Meas. range	-50 to +120 °C	-50 to +300 °C
Accuracy ±1 digit	±0.2 °C (-25 to +40 °C) ±0.3 °C (+40.1 to +80 °C) ±0.5 °C (remaining range)	±0.2 °C (-50 to +200 °C) ±0.3 °C (remaining range)
Resolution	0.1 °C	0.1 °C
Oper. temp.	-20 to +50 °C	
Storage temp.	-30 to +70 °C	
Battery type	9V block battery, 6F22	
Battery life	100 h	
Dimensions	182 x 64 x 40 mm	
Weight	171 g	



## Suitable probes at a glance

Immers./penetr. probes (not calibratable)	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
 Waterproof NTC immersion/penetration probe	 115 mm Ø 5 mm 50 mm Ø 4 mm	-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	10 s	0613 1212 <b>Conn.:</b> Fixed cable
 Stainless steel NTC food probe (IP65) with PUR cable	 125 mm Ø 4 mm 15 mm Ø 3 mm	-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 2211 <b>Conn.:</b> Fixed cable
 Robust NTC food penetration probe with special handle, reinforced PUR cable	 115 mm Ø 5 mm 30 mm Ø 3.5 mm	-25 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	7 s	0613 2411 <b>Conn.:</b> Fixed cable
 Frozen food probe NTC, corkscrew design (incl. plug-in wire)	 110 mm Ø 8 mm 30 mm Ø 4 mm	-50 to +140 °C <sup>1)</sup>	±0.5% of mv (+100 to +140 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	20 s	0613 3211 <b>Conn.:</b> Plug-in cable
 Stainless steel NTC food probe (IP67) with PTFE cable to +250°C	 125 mm Ø 4 mm 15 mm Ø 3 mm	-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 3311 <b>Conn.:</b> Fixed cable
Air probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
 Efficient, robust NTC air probe	 115 mm Ø 5 mm 50 mm Ø 4 mm	-50 to +125 °C <sup>2)</sup>	±0.2 °C (-25 to +80 °C) ±0.4 °C (remaining range)	60 s	0613 1712 <b>Conn.:</b> Fixed cable
Surface probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
 Waterproof NTC surface probe for flat surfaces	 115 mm Ø 5 mm 50 mm Ø 6 mm	-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	35 s	0613 1912 <b>Conn.:</b> Fixed cable
 Pipe wrap probe with Velcro for pipe diameter to max. 75 mm, Tmax. +75°C, NTC	 300 mm	-50 to +70 °C	±0.2 °C (-25 to +70 °C) ±0.4 °C (-50 to -25.1 °C)		0613 4611 <b>Conn.:</b> Fixed cable

 The measuring instrument inside TopSafe is waterproof with this probe.

1) Long-term meas. range +125 °C, short-term +140 °C  
 2) Long-term meas. range +125 °C, short-term +150 °C

## testo 926 – Fast, accurate versatile thermometer

### Experts are our favourite customers



Detlef Higgelke,  
Head of the  
Testo Academy

...because they know what they are doing. We offer you our support with our field-oriented trainings on measurement procedures, stipulations and on physical interrelationships.

Even more important is the exchange with other specialists from your branch. After all, we are dealing with your competence and your professional routine when using our instruments.

By the way: 98% of our training participants fully recommend our seminars and training.



Wireless measurement  
using radio probes



Displays max./min. values  
in a two-line, backlit  
display



TopSafe. protects  
measuring instrument  
from impact, dirt and  
water, dishwasher-safe  
(optional)



On-site readings printout  
on Testo fast printer  
(optional)





## testo 926

The fast-action, efficient temperature measuring instrument, testo 926, for the food sector. The optional TopSafe protection case renders it insensitive to dirt, therefore making it the ideal partner for large-scale kitchens, hotels, restaurants or the food industry. Besides measuring minimum and maximum values, readings can also be printed on site on the Testo fast printer. In addition to the wide range of standard probes with cable, a wireless radio probe can be used simultaneously, if required.

- Measurement parameters °C, °F, °R
- Fast-action probes for every application
- Wireless measurement with radio probes possible (optional)
- Audible alarm (adjustable alarm limits)
- Measurement data printout on site on the Testo fast printer
- TopSafe, the indestructible protection case (optional)



TopSafe, fast cleaning in the dishwasher



Air temperature measurement in refrigerated display counters and freezers



Auto-hold automatically recognises full-scale value



Measurement of penetration temperature when smoking foods, wireless radio transmission of measurement data

Printer and Accessories	Part no.
Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries, for printing out measurements on site	0554 0549
Spare thermal paper for printer (6 rolls), measurement data documentation legible for up to 10 years	0554 0568
Spare thermal paper for printer (6 rolls)	0554 0569
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
Additional accessories	Part no.
9V rech. battery for instrument, instead of battery	0515 0025
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025
Lithium battery, button cell, type CR 2032 for wireless probes	0515 0028
Transport and Protection	Part no.
TopSafe, protects from impact and dirt	0516 0220
Case for measuring instrument and probes	0516 0210
Transport case for meas. instr. and probes (405 x 170 x 85 mm)	0516 0201
Transport case for measuring instrument, 3 probes and accessories (430 x 310 x 85 mm)	0516 0200
Calibration Certificates	Part no.
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 surface probe; calibration points +60°C; +120°C; +180°C	0520 0071
ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +60°C	0520 0072
ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +120°C	0520 0073
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 point +60°C	0520 0063
ISO calibration certificate/temperature, for air/immersion probes, calibration points -8°C; 0°C; +40°C	0520 0181

### testo 926

testo 926-1, 1 channel food temperature measuring instrument T/C Type T, audible alarm, connection to an optional radio probe, with battery and calibration protocol

Part no. 0560 9261

### testo 926, Starter set

testo 926, Starter set, 1 channel food temperature measuring instrument T/C Type T, incl. TopSafe, standard immersion/penetration probes, battery and calibration protocol

Part no. 0563 9262

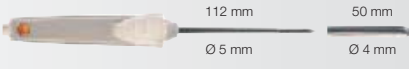
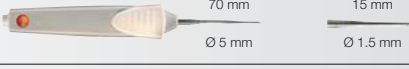
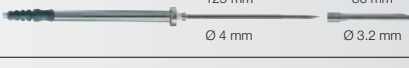
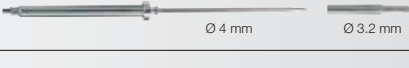
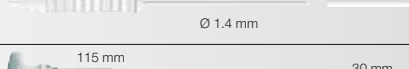
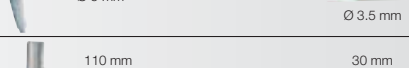
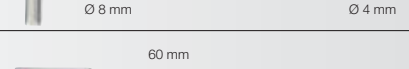
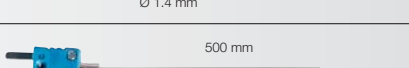
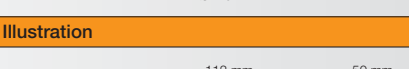
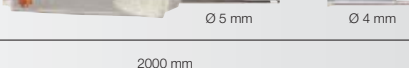
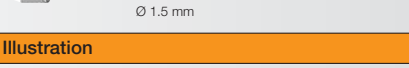
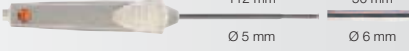
### Time for the essentials

"To be honest with you, the telephone is usually quiet between 6 and 7pm but the few people who do call are delighted. That's why I'm happy to be here too. Testo's Sales and Customer Service in Germany can be reached between 7am and 7pm."



Regina Walz  
Sales

## Suitable probes at a glance / Technical data

Immersion/penetr. probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Waterproof standard immersion/penetration probe, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	7 s	0603 1293 <b>Conn.:</b> Fixed cable
Waterproof precision immersion/penetration probe without visible penetration hole, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)		0603 2693 <b>Conn.:</b> Fixed cable
Stainless steel food probe (IP67) with PUR cable, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	7 s	0603 2192 <b>Conn.:</b> Fixed cable
Stainless steel food probe (IP67), with PTFE cable to +250 °C, TC Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	7 s	0603 3392 <b>Conn.:</b> Fixed cable
Waterproof, super-quick needle probe for measurements without visible penetration hole, T/C Type T		-50 to +250 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	2 s	0628 0027 <b>Conn.:</b> Fixed cable
Robust food penetration probe with special handle, reinforced cable (PVC), T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	6 s	0603 2492 <b>Conn.:</b> Fixed cable
Frozen food probe, corkscrew design, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	8 s	0603 3292 <b>Conn.:</b> Plug-in cable
Quick needle probe to monitor cooking in oven, T/C Type T		-50 to +250 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	2 s	0628 0030 <b>Conn.:</b> Fixed cable
Measurement tip with T/C adapter Type T, ideal for fast-action measurement on incoming goods		-50 to +350 °C	Class 1	5 s	0628 0023
Air probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Robust, affordable air probe, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	25 s	0603 1793 <b>Conn.:</b> Fixed cable
Flexible oven probe, T <sub>max</sub> +250 °C, PTFE cable		-50 to +250 °C	Class 1	5 s	0603 0646
Surface probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Waterproof surface probe with widened measurement tip for flat surfaces, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	30 s	0603 1993 <b>Conn.:</b> Fixed cable

The measuring instrument inside TopSafe is waterproof with this probe.

### Technical data

Probe type	Type T (Cu-CuNi) or NTC and Type K if radio immersion/penetration probes are used
Parameters	°C, °F, °R
Meas. range	-50 to +400 °C
Accuracy	±0.3 °C (-20 to +70 °C) ±1 digit ±(0.7 °C ±0.5% of mv) (remaining range)
Resolution	0.1 °C (-50 to +199.9 °C) 1 °C (remaining range)
Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +70 °C
Battery type	9V block battery, 6F22
Battery life	200 h (connected probe, backlight off) 45 h (radio mode, backlight off) 68 h (connected probe, backlight always on) 33 h (radio mode, backlight always on)
Dimensions	182 x 64 x 40 mm
Weight	171 g




## Option: Radio



### Radio module for upgrading measuring instrument with radio option

Country versions	Radio freq.	Part no.
Radio module for measuring instrument, 869.85 MHz, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0188
Radio module for measuring instrument, 915.00 MHz FSK, approval for USA, CA, CL	915.00 MHz FSK	0554 0190


### Radio probes for immersion/penetration measurements

Radio immersion/penetration probes	Meas. range	Accuracy	Resolution	t <sub>99</sub>
<b>Radio immersion/penetration probe, NTC</b> 	-50 to +275 °C	±0.5 °C (-20 to +80 °C) ±0.8 °C (-50 to -20.1 °C) ±0.8 °C (+80.1 to +200 °C) ±1.5 °C (remaining range)	0.1 °C	t <sub>99</sub> (in water) 12 s
Country versions	Radio freq.	Part no.		
Radio immersion/penetration probe, NTC, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0613 1001		
Radio immersion/penetration probe, NTC, approval for USA, CA, CL	915.00 MHz FSK	0613 1002		

### Assembled for you: Radio handles with probe head

Radio handles with probe head for air-/ immersion-penetration-meas.	Meas. range	Accuracy	Resolution	t <sub>99</sub>
<b>Radio handle for attachable probe heads with T/C probe head for air and immersion/penetration measurement</b> 	-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	t <sub>99</sub> (in water) 10 s
Country versions	Radio freq.	Part no.		
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189		
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191		
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handles with probe head for surface measurement	Meas. range	Accuracy	Resolution	t <sub>99</sub>
<b>Radio handle for attachable probe heads with T/C probe head for surface measurement</b> 	-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	5 s
Country versions	Radio freq.	Part no.		
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189		
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191		
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	

### Radio handles, separate

Radio handles for attachable T/C probes	Meas. range	Accuracy	Resolution
<b>Radio handle for attachable probe heads incl. adapter for attaching T/C probes (Type K)</b> 	-50 to +1000 °C	±(0.7 °C +0.3% of mv) (-40 to +900 °C) ±(0.9 °C +0.5% of mv) (remaining range)	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)
Country versions	Radio freq.	Part no.	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191	

### Radio probes: General technical data

Probe type	Radio immersion/penetration probe, NTC	Radio handle	Measuring rate	Radio transmission
Battery type	2 x 3V button cell (CR 2032)	2 AAA micro batteries	0.5 s or 10 s, adjustable on handle	Unidirectional
Battery life	150 h (meas. rate 0.5 s) 2 months (meas. rate 10 s)	215 h (meas. rate 0.5 s) 6 months (meas. rate 10 s)	Radio coverage	Oper. temp. -20 to +50 °C
			Up to 20 m (without obstructions)	Storage temp. -40 to +70 °C
				Protection class IP54

## Spot check thermometer - Fast and efficient

### testo 925

Fast-action spot check thermometer with special probes for hotels, industrial kitchens, catering industry, supermarkets etc.

- Stable surface probe for checking cooking plate, heating and baking tin temperatures e.g. in fast food restaurants.

- Robust immersion/penetration probe to monitor cooking processes or cooking oil temperature.

- Super-fast needle probe for temperature checks on thin goods such as hamburgers.

- Air probe for a fast temperature check e.g. in freezers.

An additional temperature probe can be displayed in the testo 925

measuring instrument; data transmission is by radio, i.e. wireless.

- Special probes for industrial kitchen sector
- 1 channel measuring instrument with optional radio probe
- Continuous display of max/min values
- Display light
- An audible alarm sounds when limit values are exceeded

#### testo 925

testo 925, 1 channel temperature measuring instrument T/C Type K, audible alarm, connection of an optional radio probe, with battery and calibration protocol

**Part no. 0560 9250**



TopSafe, indestructible case, protects from dirt and impact (option)



Measurement data printout on site on Testo fast printer (optional)



Practical checks on cooking plate temperature, for example



Practical monitoring during cheese storage, wireless, measurement data transmission via radio

#### Printer and Accessories

#### Part no.

Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries

0554 0549

Spare thermal paper for printer (6 rolls), measurement data documentation legible for up to 10 years

0554 0568

Spare thermal paper for printer (6 rolls)

0554 0569

Lithium battery, button cell, type CR 2032 for wireless probes

0515 0028

#### Transport and Protection

#### Part no.

TopSafe, protects from impact and dirt

0516 0221

Case for measuring instrument and probes

0516 0210

Transport case for meas. instr. and probes (405 x 170 x 85 mm)

0516 0201

Transport case for measuring instrument, 3 probes and accessories (430 x 310 x 85 mm)

0516 0200

#### Calibration Certificates

#### Part no.

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 surface probe; calibration points +60°C; +120°C; +180°C

0520 0071

#### Technical data

**Probe type** Type K (NiCr-Ni) or NTC if radio immersion/penetration probes are used

**Meas. range** -50 to +1000 °C

**Accuracy** ±(0.5 °C +0.3% of mv) (-40 to +900 °C)  
±1 digit ±(0.7 °C +0.5% of mv) (remaining range)

**Resolution** 0.1 °C (-50 to +199.9 °C)  
1 °C (remaining range)

**Oper. temp.** -20 to +50 °C

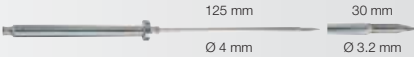
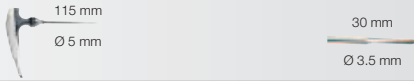
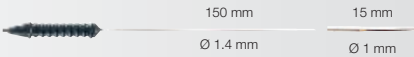
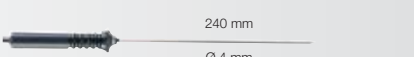
**Storage temp.** -40 to +70 °C

**Battery type** 9V block battery, 6F22

**Battery life** 200 h (connected probe, backlight off)  
45 h (radio mode, backlight off)  
68 h (connected probe, backlight always on)  
33 h (radio mode, backlight always on)

**Dimensions** 182 x 64 x 40 mm

**Weight** 171 g


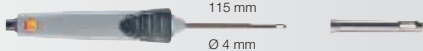
Immers./penetr. probes	Illustration	Meas. range	Accuracy	t99	Part no.
Waterproof food probe made of stainless steel (IP65), T/C Type K		-60 to +400 °C	Class 2	7 s	0602 2292 Conn.: Fixed cable
Robust food probe with special handle, IP 65, reinforced cable (PUR), T/C Type K		-60 to +400 °C	Class 1	6 s	0602 2492 Conn.: Fixed cable
Waterproof super-fast needle probe, highly accurate measurements without visible penetration hole. Specially for food, ideal for hamburgers, steaks, pizza, eggs etc., T/C Type K		-60 to +250 °C	Class 1	1s	0628 0026 Conn.: Fixed cable
Waterproof robust immersion/penetration probe with metal protection hose Tmax +230°C, e.g. for monitoring temp. in cooking oil, T/C Type K		-50 to +230 °C	Class 1	15 s	0628 1292 Conn.: Fixed cable

The measuring instrument inside TopSafe is waterproof with this probe.

\* TopSafe: TPU casing; TPE lid; PC stand



## Suitable probes at a glance / Option: Radio



Surface probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Stable, robust surface probe with PTFE standing area and metal protection hose T <sub>max</sub> +230 °C for cooking surfaces, heating and baking trays, T/C Type K		-50 to +230 °C	Class 2	45 s	0628 9992 Conn.: Fixed cable
Air probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Robust air probe, T/C Type K		-60 to +400 °C	Class 2	25 s	0602 1793 Conn.: Fixed cable

 The measuring instrument inside TopSafe is waterproof with this probe.


### Radio module for upgrading measuring instrument with radio option

Country versions	Radio freq.	Part no.
Radio module for measuring instrument, 869.85 MHz, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0188
Radio module for measuring instrument, 915.00 MHz FSK, approval for USA, CA, CL	915.00 MHz FSK	0554 0190

### Assembled for you: Radio handles with probe head

Radio handles with probe head for air-/ immersion-penetration-meas.	Meas. range	Accuracy	Resolution	t <sub>99</sub>
Radio handle for attachable probe heads with T/C probe head for air and immersion/penetration measurement		-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range) t <sub>99</sub> (in water) 10 s
Country versions		Radio freq.	Part no.	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO		869.85 MHz FSK	0554 0189	
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL		915.00 MHz FSK	0554 0191	
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handles with probe head for surface measurement	Meas. range	Accuracy	Resolution	t <sub>99</sub>
Radio handle for attachable probe heads with T/C probe head for surface measurement		-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range) 5 s
Country versions		Radio freq.	Part no.	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO		869.85 MHz FSK	0554 0189	
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL		915.00 MHz FSK	0554 0191	
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	

### Radio handles, separate

Radio handles for attachable T/C probes		Meas. range	Accuracy	Resolution
Radio handle for attachable probe heads incl. adapter for attaching T/C probes (Type K)		-50 to +1000 °C	±(0.7 °C +0.3% of mv) (-40 to +900 °C) ±(0.9 °C +0.5% of mv) (remaining range)	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)
Country versions			Radio freq.	Part no.
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO			869.85 MHz FSK	0554 0189
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL			915.00 MHz FSK	0554 0191

### Radio probes: General technical data

Probe type	Radio immersion/penetration probe, NTC	Radio handle	Measuring rate	Radio transmission
Battery type	2 x 3V button cell (CR 2032)	2 AAA micro batteries	0.5 s or 10 s, adjustable on handle	Unidirectional
Battery life	150 h (meas. rate 0.5 s) 2 months (meas. rate 10 s)	215 h (meas. rate 0.5 s) 6 months (meas. rate 10 s)	Radio coverage	Oper. temp. -20 to +50 °C Storage temp. -40 to +70 °C Protection class IP54
			Up to 20 m (without obstructions)	

## Highly accurate alarm and logger thermometer – With site management

### Monitoring food

#### Risk factor: Bacteria

Consumers may be exposed to health risks caused by bacteriological contamination of food. This risk becomes dangerous when a specified quantity of germs is exceeded. Bacterial growth relies on temperature!

#### Measurements on non-frozen food

For fast and accurate measurements, the penetration probe must be inserted at least 5 times, better 10 times as deep as it is thick.

#### Measurements on frozen food

Use probes suitable for large pieces (e.g. screw-in frozen food probe) and insert sufficiently (min. 4 cm). In the case of flat products (e.g. pizza, fish), use probes with a thin or reinforced measurement tip.

#### Measurements in freezers and cold storage rooms

The air temperature in freezers and cold storage rooms should be a constant  $-18^{\circ}\text{C}$ . If monitoring over longer time periods, data loggers with alarm, if limit values are exceeded, are recommended. Fast-response probes for measuring penetration temperature are recommended when dispensing food. A minimum temperature of  $+65^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  is recommended.

#### Non-contact temperature measurement (screening test)

At greater distances, the ideal distance between measuring instrument and the object being measured is dependent on the optics of the infrared measuring instrument. Always measure the temperature of the packaging on packaged food; in the case of plastic seal packaging, only measure at points where the packaging comes into direct contact with the product. Major measurement errors occur if ice crystals or shiny, reflective surfaces are measured.



Wireless measurement using radio probes



Analyses and documents readings according to product names using PC software (included)



Displays site and parameter. Up to 99 product names can be stored in the instrument



On-site readings printout on Testo fast printer





## testo 735-2

The robust and compact measuring instrument with a probe socket for highly accurate Pt100 probes and two sockets for fast-action thermocouple probes. Readings from up to three additional temperature probes can be displayed in the testo 735-2 measuring instrument's clear display; data transmission is by radio, i.e. wireless. The measurement values can be simultaneously transferred to a PC and stored there. In this way, a total of 6 channels is recorded by the measuring instrument. A system accuracy of 0.05 °C with a resolution of 0.001 °C is reached using the plug-in highly accurate Pt100 immersion/penetration probe. The measuring instrument is therefore ideally suited for use as a working standard.

Temperature characteristics are recorded in the instrument and then analysed in graphics and tables on your PC/Notebook. Data is printed on site on the Testo fast printer using infrared.

Selectable user profiles, i.e. allocation of specific function buttons to an application facilitate intuitive and fast operation. Individual protocols or measurement series can be stored according to site. Up to 99 sites can be stored in the instrument. The storage cycle is user-defined between 0.5 seconds and 24 hours.

- System accuracy up to 0.05 °C
- Instrument memory for up to 10,000 readings
- PC software for filing, analysing and documenting measurement data (included)
- Displays, saves and prints Delta T, min, max and mean values
- Audible alarm if limit values are exceeded
- Protection class IP65

PC software for filing and documenting measurement data (included)



Spot checks for frozen goods in refrigerated rooms



Fast documentation thanks to on-site data printout

Checks temperature when dispensing food; no annoying cables thanks to radio probes



### testo 735-2

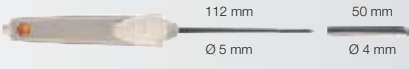
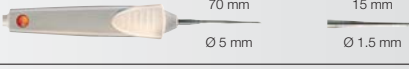
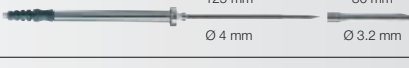
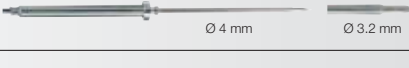
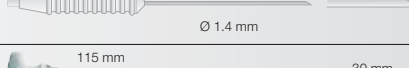
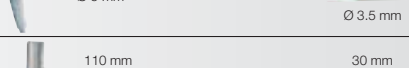
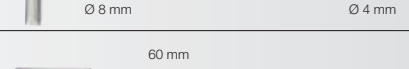
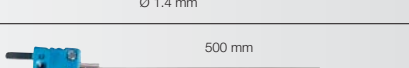
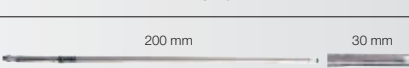
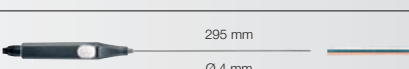
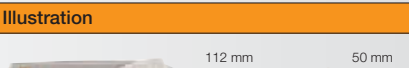
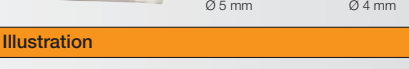
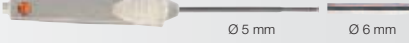
testo 735-2, 3 channel temperature measuring instrument T/C Type T/J/K/S/Pt100, audible alarm, connection for max. 3 optional radio probes, with data memory, PC software and USB data transmission cable, with battery and calibration protocol

Part no. 0563 7352

Printer and Accessories	Part no.
Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries	0554 0549
Spare thermal paper for printer (6 rolls), measurement data documentation legible for up to 10 years	0554 0568
Spare thermal paper for printer (6 rolls)	0554 0569
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
Additional accessories	Part no.
Plug-in mains adapter, 5 VDC 500 mA with European adapter, 100-250 VAC, 50-60 Hz	0554 0447
Lithium battery, button cell, type CR 2032 for wireless probes	0515 0028

Transport and Protection	Part no.
Service case for basic equipment of measuring instrument and probes, dimensions: 400 x 310 x 96 mm	0516 0035
Service case for measuring instrument, probes and accessories, dimensions 520 x 380 x 120 mm	0516 0735
Calibration Certificates	Part no.
ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +60°C	0520 0072
ISO calibration certificate/temperature, single point calibration for surface thermometer; calibration point +120°C	0520 0073
ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001
ISO calibration certificate/temperature, for air/immersion probes, calibration points -8°C; 0°C; +40°C	0520 0181

## Suitable probes at a glance / Technical data

Immersion/penetration probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Waterproof standard immersion/penetration probe, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	7 s	0603 1293 Conn.: Fixed cable
Waterproof precision immersion/penetration probe without visible penetration hole, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)		0603 2693 Conn.: Fixed cable
Stainless steel food probe (IP67) with PUR cable, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	7 s	0603 2192 Conn.: Fixed cable
Stainless steel food probe (IP67), with PTFE cable to +250 °C, TC Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	7 s	0603 3392 Conn.: Fixed cable
Waterproof, super-quick needle probe for measurements without visible penetration hole, T/C Type T		-50 to +250 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	2 s	0628 0027 Conn.: Fixed cable
Robust food penetration probe with special handle, reinforced cable (PVC), T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	6 s	0603 2492 Conn.: Fixed cable
Frozen food probe, corkscrew design, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	8 s	0603 3292 Conn.: Plug-in cable
Quick needle probe to monitor cooking in oven, T/C Type T		-50 to +250 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	2 s	0628 0030 Conn.: Fixed cable
Measurement tip with T/C adapter Type T, ideal for fast-action measurement on incoming goods		-50 to +350 °C	Class 1	5 s	0628 0023
Laboratory probe Pt100, glass-coated, exchangeable glass pipe (Duran 50), resistant to corrosive substances		-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range)	45 s	0609 7072 Conn.: Fixed cable
Highly accurate Pt100 immersion/penetration probe incl. calibration protocol (test points 0 °C and +157 °C)		-40 to +300 °C	±0.05 °C (+0.01 to +100 °C) ±(0.05 °C + 0.05% of mv) (remaining range)	60 s	0614 0235 Conn.: Fixed cable
Air probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Robust, affordable air probe, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	25 s	0603 1793 Conn.: Fixed cable
Surface probes	Illustration	Meas. range	Accuracy	t <sub>99</sub>	Part no.
Waterproof surface probe with widened measurement tip for flat surfaces, T/C Type T		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range)	30 s	0603 1993 Conn.: Fixed cable

The measuring instrument inside TopSafe is waterproof with this probe.

Technical data				
Probe type*	Pt100	Pt100 with probe 0614 0235	Type K (NiCr-Ni)	Type T (Cu-CuNi)
Meas. range	-200 to +800 °C	-40 to +300 °C	-200 to +1370 °C	-200 to +400 °C
Accuracy ±1 digit	±0.2 °C (-100 to +199.9 °C) ±0.2% of mv (remaining range)	See probe data	±0.3 °C (-60 to +60 °C) ±(0.2 °C + 0.3% of mv) (remaining range)	±0.3 °C (-60 to +60 °C) ±(0.2 °C + 0.3% of mv) (remaining range)
Resolution	0.05 °C	0.001 °C (-40 to +199.999 °C) 0.01 °C (remaining range)	0.1 °C	0.1 °C
Probe type*	Type J (Fe-CuNi)	Type S (Pt10Rh-Pt)		
Meas. range	-200 to +1000 °C	0 to +1760 °C		
Accuracy ±1 digit	±0.3 °C (-60 to +60 °C) ±(0.2 °C + 0.3% of mv) (remaining range)	±1 °C		
Resolution	0.1 °C	1 °C		
Battery type	Alkali manganese, mignon, Type AA		Oper. temp.	-20 to +50 °C
Battery life	Approx. 300 h with TC probe Approx. 250 h with Pt100 Approx. 60 h with 0614 0235		Storage temp.	-30 to +70 °C
			Dimensions	220 x 74 x 46 mm
Protection class IP65			Weight	428 g

\*Probe type NTC when using radio immersion/penetration probes



## Option: Radio

### Radio module for upgrading measuring instrument with radio option

Country versions	Radio freq.	Part no.
Radio module for measuring instrument, 869.85 MHz, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0188
Radio module for measuring instrument, 915.00 MHz FSK, approval for USA, CA, CL	915.00 MHz FSK	0554 0190

### Radio probes for immersion/penetration measurements

Radio immersion/penetration probes	Meas. range	Accuracy	Resolution	t <sub>99</sub>
Radio immersion/penetration probe, NTC	-50 to +275 °C	±0.5 °C (-20 to +80 °C) ±0.8 °C (-50 to -20.1 °C) ±0.8 °C (+80.1 to +200 °C) ±1.5 °C (remaining range)	0.1 °C	t <sub>99</sub> (in water) 12 s
Country versions	Radio freq.	Part no.		
Radio immersion/penetration probe, NTC, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0613 1001		
Radio immersion/penetration probe, NTC, approval for USA, CA, CL	915.00 MHz FSK	0613 1002		

### Assembled for you: Radio handles with probe head

Radio handles with probe head for air-/ immersion-penetration-meas.	Meas. range	Accuracy	Resolution	t <sub>99</sub>
Radio handle for attachable probe heads with T/C probe head for air and immersion/penetration measurement	-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	t <sub>99</sub> (in water) 10 s
Country versions	Radio freq.	Part no.		
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189		
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191		
T/C probe head for air/immersion/penetration measurement, attachable to radio handle, T/C Type K			0602 0293	
Radio handles with probe head for surface measurement	Meas. range	Accuracy	Resolution	t <sub>99</sub>
Radio handle for attachable probe heads with T/C probe head for surface measurement	-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	5 s
Country versions	Radio freq.	Part no.		
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189		
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191		
T/C probe head for surface measurement, attachable to radio handle, T/C Type K			0602 0394	

### Radio handles, separate

Radio handles for attachable T/C probes	Meas. range	Accuracy	Resolution
Radio handle for attachable probe heads incl. adapter for attaching T/C probes (Type K)	-50 to +1000 °C	±(0.7 °C +0.3% of mv) (-40 to +900 °C) ±(0.9 °C +0.5% of mv) (remaining range)	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)
Country versions	Radio freq.	Part no.	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189	
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191	

### Radio probes: General technical data

Probe type	Radio immersion/penetration probe, NTC	Radio handle	Measuring rate	Radio transmission
Battery type	2 x 3V button cell (CR 2032)	2 AAA micro batteries	0.5 s or 10 s, adjustable on handle	Unidirectional
Battery life	150 h (meas. rate 0.5 s) 2 months (meas. rate 10 s)	215 h (meas. rate 0.5 s) 6 months (meas. rate 10 s)	Radio coverage	Oper. temp. -20 to +50 °C
			Up to 20 m (without obstructions)	Storage temp. -40 to +70 °C
				Protection class IP54

## Reference measuring instrument – With highest precision

### testo 950

Assuring quality means adhering to temperatures. The testo 950 precision measuring instrument can be used for frozen food temperatures to high oven temperatures. The measuring instrument combines user-friendly menu-driven operation and has a system accuracy of up to 0.05 °C.

A readings memory for max. 500,000 readings is available for long-term measurement. All important parameters such as start and end of measurement, measurement intervals, limits exceeded/fallen short of and date/time can be programmed.

The saved measurement data can be analysed using PC software or printed on the Testo fast printer on site.

- System accuracy up to 0.05 °C and up to a resolution of 0.001 °C with precision probe 0614 0240
- System adjustment integrated in measuring instrument – fast thermocouple probes can be adjusted to a reference value using the 0614 0240 precision probe.

#### testo 950

Reference temperature measuring instrument, incl. battery, Li cell and calibration protocol

Part no. 0563 9501



Monitoring the cooking temperature

Accessories for measuring instrument/Probes	Part no.	Printer and Accessories	Part no.
Rech. batt. set for instr. (2 rech. 2.4V/1100mAh), selected for quick recharging in instrument	0554 0196	Attachable printer (securely attached) including 1 roll of thermal paper and batteries	0554 0570
Mains unit 230 V/ 8 V/ 1 A, for instrument (European plug), for mains operation and battery recharging	0554 1084	Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries	0554 0549
Car charging adapter, ready to measure following recharging in car, battery is recharged while travelling in car	0554 0424		
Software and Accessories	Part no.	SoftCase for instrument and printer	Part no.
ComSoft 3 - Professional with data management, incl. database, analysis and graphics function, data analysis, trend curve	0554 0830	SoftCase (protects instrument from impact) with carrier strap, magnetic holder and probe holder	0516 0401
RS232 cable, connects instrument to PC (1.8 m) for data transfer	0409 0178	SoftCase for attachable printer (protects printer from dirt/impact)	0516 0411
Ethernet adapter, RS232 - Ethernet incl. software driver, mains unit, facilitates data communication in network	0554 1711		
		System case	Part no.
		System case (plastic) for measuring instrument, probes and accessories, probes in lid make it easy to find parts in case (540 x 440 x 130 mm)	0516 0400

Description	Illustration	Meas. range	Accuracy	t99	Part no.
Highly accurate immersion/penetration probe incl. calibration protocol (test points 0 °C)		-40 to +300 °C	±0.05 °C (+0.01 to +100 °C) ±(0.05 °C ±0.05% of mv) (-40 to 0 °C) ±(0.05 °C ±0.05% of mv) (+100.01 to +300 °C)	60 s	0614 0240 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required
Super quick-action immersion/penetration probe for measurements in gases and liquids with a low-mass tip		-200 to +600 °C Class 1		1 s	0604 9794 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required
Robust immersion/penetration probe with sharpened measuring tip, waterproof and oven-proof		-200 to +400 °C Class A		30 s	0604 2573 Conn.: Fixed cable
Robust food probe with special handle, IP 65, reinforced cable (PUR), T/C Type K		-60 to +400 °C Class 1	Please also order the 0600 1693 T/C adapter	6 s	0602 2492 Conn.: Fixed cable
Super quick-action surface probe, probe tip at 90° angle, with sprung thermocouple strip		-200 to +300 °C Class 2		3 s	0604 0994 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required
Stable, robust surface probe with PTFE standing area and metal protection hose Tmax +230 °C for cooking surfaces, heating and baking trays, T/C Type K		-50 to +230 °C Class 2	Please also order the 0600 1693 T/C adapter	45 s	0628 9992 Conn.: Fixed cable
Precision air probe		-100 to +400 °C	1/10 Class B (0 to 100 °C) 1/5 Class B (rem. range) to EN 60751	75 s	0628 0017 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required

For further information and calibration certificates, please refer to our brochure "Portable Reference Measurement Engineering" and [www.testo.com](http://www.testo.com).



## Monitor ambient storage conditions – Efficiently and Accurately

### testo 608-H1 /-H2

The affordable standard testo 608-H1 hygrometer measures humidity, temperature and dewpoint non-stop.

The efficient testo 608-H2 alarm hygrometer with LED alarm function for accurate signals when limits are exceeded.

- With dewpoint calculation and Max/Min value display
- Humidity sensor unaffected by condensation

#### testo 608-H1

Humidity/Dewpoint/Temperature measuring instrument incl. battery

Part no. 0560 6081

#### testo 608-H2 with alarm

Humidity/dewpoint/temperature measuring instrument, incl. LED alarm, battery and calibration protocol

Part no. 0560 6082

Technical data	testo 608-H1	testo 608-H2
Meas. range	+10 to +95 %RH 0 to +50 °C -20 to +50 °C td	+2 to +98 %RH -10 to +70 °C -40 to +70 °C td
Accuracy ±1 digit	±3 %RH (+10 to +95 %RH) ±0.5 °C (at +25 °C)	±2 %RH (+2 to +98 %RH) ±0.5 °C (at +25 °C)
Oper. temp.	0 to +50 °C	-10 to +70 °C
Resolution	0.1 %RH / 0.1 °C	Measuring rate 18 s
Storage temp.	-40 to +70 °C	Dimensions 120 x 89 x 40 mm
Battery life	8736 h	Weight 168 g

Display easily legible at a distance

testo 608-H2 with LED alarm

Reliable monitoring of storage conditions in the food sector

#### Accessories Ordering data

#### Part no.

ISO calibration certificate humidity, Calibration points 11.3 %RH and 75.3 %RH at +25 °C

0520 0006

## Mini infrared thermometer – Pocket-size

### testo 805

The infrared thermometer, which is only 80 mm in size, fits inside any pocket and is always ready at hand for fast measurements in Incoming Goods, for example.

Also ideal for quick measurements when distributing food.

- High accuracy in a critical area for food
- Packaging remains undamaged
- TopSafe is dishwasher-proof
- Display of minimum and maximum values
- Scan mode for permanent measurement

Robust, waterproof protection case (IP65), optional

Fast temperature measurement as you pass by

#### testo 805

Mini infrared thermometer and battery

Part no. 0560 8051

#### Set for fast inspections

Mini infrared thermometer, TopSafe and battery

Part no. 0563 8051

#### Accessories Ordering data

#### Part no.

TopSafe, robust, waterproof protection case (IP65)

0516 8051

ISO calibration certificate/Temperature, Infrared thermometers, calibration points 0 °C, +60 °C

0520 0452

#### Technical data

Meas. range	-25 to +250 °C	
Accuracy	±3 °C (-25 to -21 °C) ±2 °C (-20 to -2.1 °C) ±1 °C (-2 to +40 °C)	±1.5 °C (+40.1 to +150 °C) ±2% of mv (+150.1 to +250 °C)
Resolution	0.1 °C (-9.9 to +199.9 °C)	1 °C (remaining range)
Distance to measurement spot 1:1		
Emissivity	0.95 (adjustable to 0.95 or 1.00)	
Reaction time	< 1.0 s	Dimensions 80 x 31 x 19 mm
Oper. temp.	0 to +50 °C	Weight 28 g
Storage temp.	-20 to +65 °C	

## Temperature measurement – Non-contact

### testo 826-T1

Non-contact and fast temperature monitoring of food, convenient and without damaging the packaging.

- High accuracy
- Wall/belt holder included
- Visual alarm testo 826-T1
- Audible alarm testo 826-T2

### testo 826-T2

The thermometer has an additional laser sighting.

- 6:1 opening ratio (distance/spot diameter)
- Fast measurement without destroying packaging

Water-proof and robust on account of TopSafe (IP67) (included)



#### testo 826-T1

Infrared thermometer without sighting, with TopSafe and wall/belt holder

Part no. 0563 8261

#### testo 826-T2 with laser

Infrared thermometer with laser sighting and audible alarm, incl. TopSafe and wall/belt holder

Part no. 0563 8262

#### Accessories Ordering data

ISO calibration certificate/temperature, Infrared thermometers, calibration points -18°C, 0°C, +60°C  
Part no. 0520 0401

#### Technical data

Meas. range	-50 to +300 °C	
Accuracy	±1.5 °C (-20 to +100 °C) ±2 °C or 2% of mv (remaining range)	
Resolution	0.5 °C	Storage temp. -40 to +70 °C
Oper. temp.	0 to +50 °C (826-T1)	-20 to +50 °C (826-T2)
Battery life	Approx. 150 h	Approx. 20 h (cont. oper.) (826-T2)

testo 826-T2 with laser sighting and audible alarm

Temperature screening test on food e.g. in freezers, refrigerated storerooms etc.

## Temperature measurement – Non-contact or direct

### testo 826-T3/-T4

Fast, non-contact measurement and core temperature measurement in one instrument. The surface temperature is measured with the infrared side while the penetration side can be used to measure the core temperature.

826-T4 also has a laser sighting and a reliable audible alarm.

- High accuracy
- Wall/belt holder included
- TopSafe case protects from impact, dirt and water
- Optical alarm testo 826-T3
- Audible alarm testo 826-T4
- 6:1 opening ratio (distance/spot diameter)



Only in combination with TopSafe

testo 826-T4 with laser sighting and audible alarm



#### testo 826-T3

Infrared and contact thermometer with TopSafe, wall/belt holder, probe protection cap and drill for frozen food

Part no. 0563 8263

#### testo 826-T4 with laser

Infrared and contact thermometer with laser and alarm, TopSafe, wall/belt holder, protection cap, frozen food drill

Part no. 0563 8264

#### Accessories Ordering data

ISO calibration certificate/temperature, for air/immersion probes, calibration point -18°C  
Part no. 0520 0061

ISO calibration certificate/temperature, for air/immersion probes, calibration point 0°C  
Part no. 0520 0062

ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C, 0°C, +60°C  
Part no. 0520 0001

ISO calibration certificate/temperature, Infrared thermometers, calibration points -18°C, 0°C, +60°C  
Part no. 0520 0401

ISO calibration certificate/temperature, Infrared thermometers, calibration points 0°C, +60°C  
Part no. 0520 0452

Thin, robust measurement tip



Temperature screening test and core temperature measurement

Technical data	Infrared thermometer	Contact thermometer
Meas. range	-50 to +300 °C	-50 to +230 °C
Accuracy ±1 digit	±1.5 °C (-20 to +100 °C) ±2 °C or 2% of mv (remaining range)	±0.5 °C (-20 to +99.9 °C) ±1 °C or 1% of mv (remaining range)
Resolution	0.5 °C	0.1 °C
Oper. temp.	0 to +50 °C (826-T3)	-20 to +50 °C (826-T4)

## Distance thermometer for infrared monitoring measurements

### testo 831

Thanks to its 30:1 optics, the measurement spot diameter is only 3.6 cm at a distance of 1 m. This means that even small objects such as yoghurt pots can be easily measured at a distance. Measurement errors are avoided due to a 2-point laser which indicates the exact measurement spot. At two measurements per second, the testo 831 is so fast that measurements on pallets or refrigerated shelves can be carried out in seconds.

- Infrared thermometer with 30:1 optics
- Broad measurement range of -30 to +210 °C
- Backlit display
- Alarm limit values can be set and are optically and audibly indicated
- Including belt holder and factory calibration certificate
- Also available as a set with the core thermometer testo 106

#### Set

In certain applications, it is necessary to carry out an additional core temperature measurement, or an additional core thermometer is required for measuring the temperature of food before serving. For this purpose, Testo offers an economical set consisting of testo 831 and the proven testo 106 core thermometer.

#### testo 831

testo 831, infrared thermometer including belt holder, battery, instruction manual and factory calibration certificate with the measurement points -20 and +80 °C

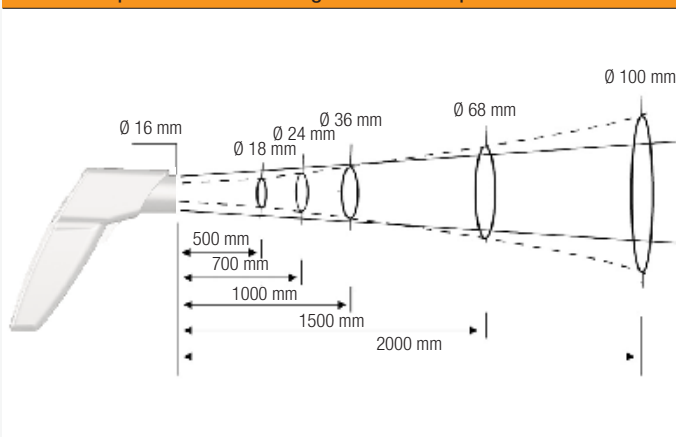
Part no. 0560 8310

#### Set with testo 831 and testo 106

Set testo 831 and testo 106 - Infrared thermometer including belt holder, battery, instruction manual and factory calibration certificate with the measurement points -20 and +80 °C, and penetration thermometer testo 106 including TopSafe, belt holder, battery and instruction manual

Part no. 0563 8310

#### testo 831: 2-point laser for marking measurement spot



2-point laser marking  
(actual measurement spot)

Backlit display

Fast and easy checks on refrigerated displays



Set consisting of : testo 831 and the core thermometer testo 106

Accessories Ordering data	Part no.
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 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

Technical data	
Meas. range	-30 to +210 °C
Spectral range	8 to 14 µm
Accuracy	±1,5 °C or ±1,5% of mv (-20 to +210 °C) ±1 digit
Resolution	0,5 °C
Meas. spot marking	2-point laser
Distance to measurement spot	30:1
Emissivity	Adjustable 0.2 to 1.0
Oper. temp.	-20 to +50 °C
Storage temp.	-40 to +70 °C
Display	Illuminated LCD
Protection class	IP30
Dimensions	190 x 75 x 38 mm
Weight	200 g

Technical data testo 106 see page 10



## testo 845 – the infrared measurement technology for temperature with integrated humidity module

For the first time, surface temperatures with smallest diameters can be measured accurately at short and long distances. The switchable optics for far-field and close focus measurement make this possible. Measurements in the far-field are made with an optical resolution of 75:1. Surface temperatures can thus be measured accurately even at greater distances from the object to be measured. At a distance of 1.2 metres from the object, the measurement point diameter is only 16 mm. A cross laser marks the measurement point exactly.

For measurements at a small distance from the object to be measured, the close focus optics provide a measurement point diameter of only 1 mm at a distance of 70 mm! Two laser points mark the measurement point.

- Switchable optics for far-field measurements (75:1) and close focus (1 mm, 70 mm distance)
- Especially bright cross laser sighting for indicating the actual measuring point
- Reference accuracy  $\pm 0.75\text{ }^{\circ}\text{C}$  with super-fast measurement technology (scanning 100 ms)
- Backlit display (3-line) showing  $^{\circ}\text{C}$ , min./max. values, alarm limit values and degree of emission
- Optical and audible alarm when limit values are exceeded
- Instrument memory for 90 measurement protocols
- PC software for archiving and documenting measurement data (included in delivery)
- Tripod fitting for online measurement via USB cable (included in delivery)



Switch optics 1:  
Far-field 75:1 (16 mm,  
distance 1200 mm) with  
cross laser marking



Switch optics 2:  
close focus (1 mm,  
distance 70 mm) with 2-  
point laser marking



testo 845 with additional  
humidity module for  
measuring ambient air  
humidity and for  
determining  
dewpoint  
distance



Fast documentation with  
measurement data  
printout on site



# Infrared Thermometer with Switchable Optics (far-field/close focus)

## 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

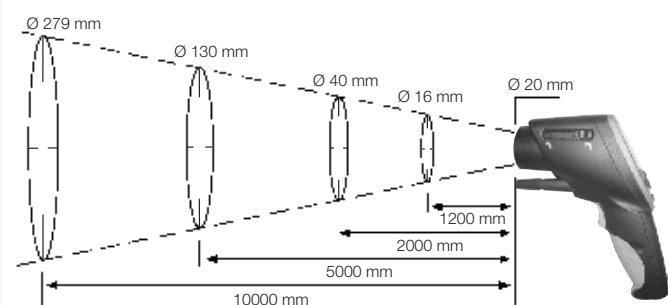
testo 845, infrared temperature measuring instrument with cross laser sighting incl. humidity module, switchable optics for far-field and close focus measurement, contact temperature probe attachable, optical/audible alarm, reading memory, PC software incl. USB data transfer cable, aluminium case, battery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

Part no. 0563 8451

Description	Meas. range	Part no.
Fast-action surface probe with sprung thermocouple strip, also for uneven surfaces, measurement range short-term to +500°C, TC Type K	-60 to +300 °C	0602 0393
		
Robust air probe, T/C Type K	-60 to +400 °C	0602 1793
		

Accessories Ordering data	Part no.
Humidity module, upgradeable for testo 845 (0563 8450)	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, for printing out measurements on site	0554 0549
Spare thermal paper for printer (6 rolls), measurement data documentation legible for up to 10 years	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
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

## Far-field measurement



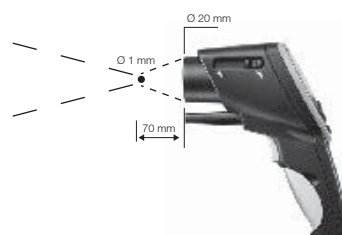
Probe socket for TC probes for determining emissivity

Aluminium case for instrument and accessories (included)

Secure measurement, even of small products, in Incoming Goods

Technical data	Infrared	Contact (type K)	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
Emission factor	Adjustable 0.1 to 1.0		
Optical resolution	Far-field: (75:1) Ø 16 mm at a distance of 1200 mm (90%) Close focus: Ø 1 mm, at a distance of 70 mm (90%)		
Measuring rate	t95: 250 ms; Scanning Max/Min/Alarm: 100 ms		
Dimensions	155 x 58 x 195 mm		
Battery type	2 AA batteries		
Battery life	25 h (without laser), 10 h (with laser without light), 5 h (with laser and 50% light)		
Material/Housing	ABS Black/gray, metal screen		
Oper. temp.	-20 to +50 °C		
Storage temp.	-40 to +70 °C		

## Close focus measurement



Switch to far-field measurement at a measurement distance > 250 mm.





## testo Saveris™ – Measurement data monitoring in the food industry

In restaurants, food retail and in large kitchens, the cold chain must be guaranteed at all times. In order to keep foodstuffs fresh and to adhere to hygiene requirements, the uninterrupted documentation of the cold chain is necessary. testo Saveris provides optimum support here.

testo Saveris automates the monitoring of the cooling chain and thus provides you with security and time savings.

Should a limit value be exceeded, testo Saveris immediately issues an alarm. Various alarm options can be set based on your wishes. You thus receive not only uninterrupted documentation, but also will be informed immediately if the temperatures are outside the prescribed range.

The testo Saveris wireless probes stand out thanks to their easy, fully automatic commissioning and absolutely safe transfer of measurement data.

The testo Saveris base saves all measurement values in its long-term memory, and sends optical and audible alarm reports, e.g. by SMS.

**Now new!**

The testo analog coupler enables the integration of all transmitters with standardized current/voltage interfaces, e. g. 4 to 20 mA

**Conforms to important standards in the food industry (HACCP and EN 12830)**

### Note on the radio frequencies

868 MHz: EU countries and certain other countries (e.g. CH, NOR)

2.4 GHz: non-EU countries (country list can be called up under [www.testo.com/saveris](http://www.testo.com/saveris))

The network-capable testo Saveris software offers a central overview of the measurement data, and uninterrupted documentation.







### Saveris set

Set 1: 868 MHz, consisting of base 0572 0120, 3 NTC radio probes without display 0572 1110, mains unit for base 0554 1096 and SBE software 0572 0180 incl. USB cable

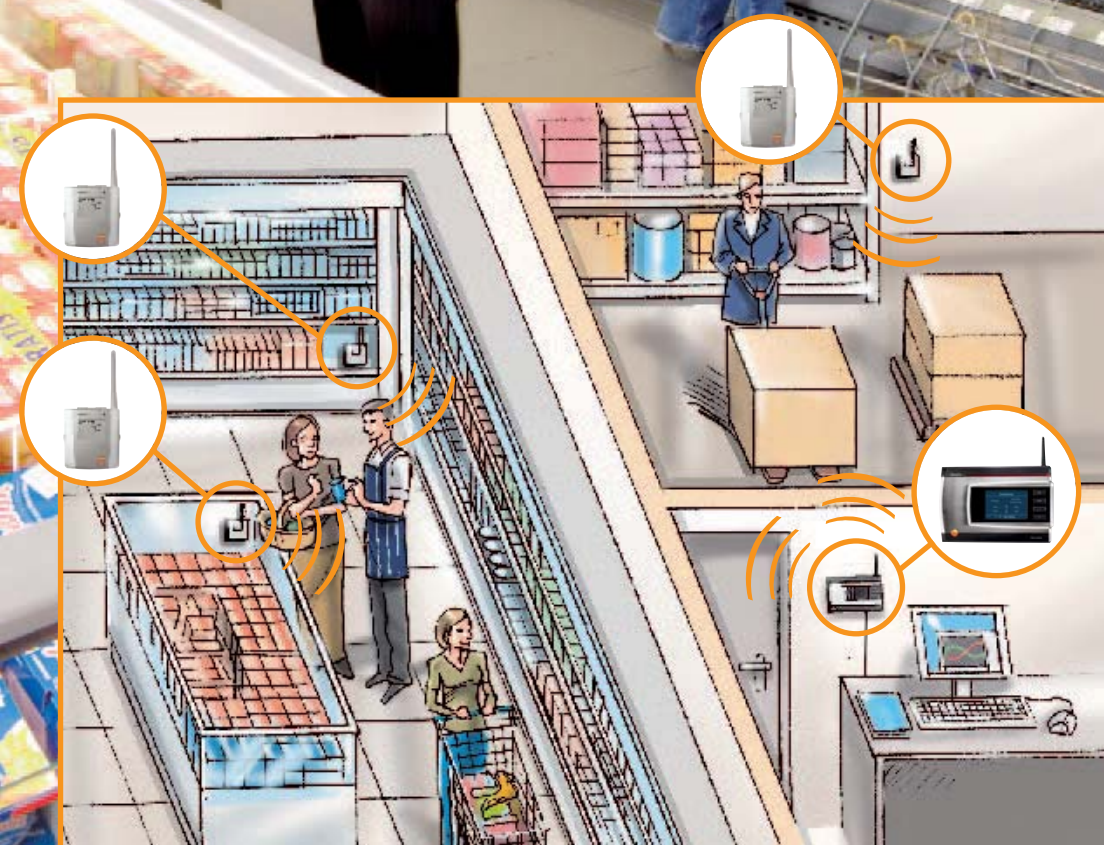
### Set 868 MHz

Part no. 0572 0110

Set 1: 2.4 GHz, consisting of base 0572 0160, 3 NTC radio probes without display 0572 1150, mains unit for base 0554 1096 and SBE software 0572 0180 incl. USB cable

### Set 2.4 GHz

Part no. 0572 0150



## testo Saveris™ System overview

### testo Saveris radio probe

Probe versions with internal and external temperature and humidity sensors allow the adaptation to every application. The radio probes are available with or without a display as an option. The memory in the probe ensures that the measurement data is not lost in the event of an interference in the radio link. Current measurement data, the battery status and the quality of the radio link are shown in the display.

### testo Saveris router

The radio link can be improved or lengthened with poor structural conditions by using a router. Naturally several routers are possible in the testo Saveris system, but several routers are not connected in series.

Through the connection of a converter to an Ethernet jack, the signal of a radio probe can be converted into an Ethernet signal. This combines the flexible connection of the radio probe with the use of the existing Ethernet even over long transmission paths.



### testo Saveris analog coupler

The analog coupler allows the inclusion of further measurement parameters into the testo Saveris monitoring system, by integrating all transmitters with standardized current/voltage interfaces, e. g. 4 to 20 mA or 0 to 10 V.

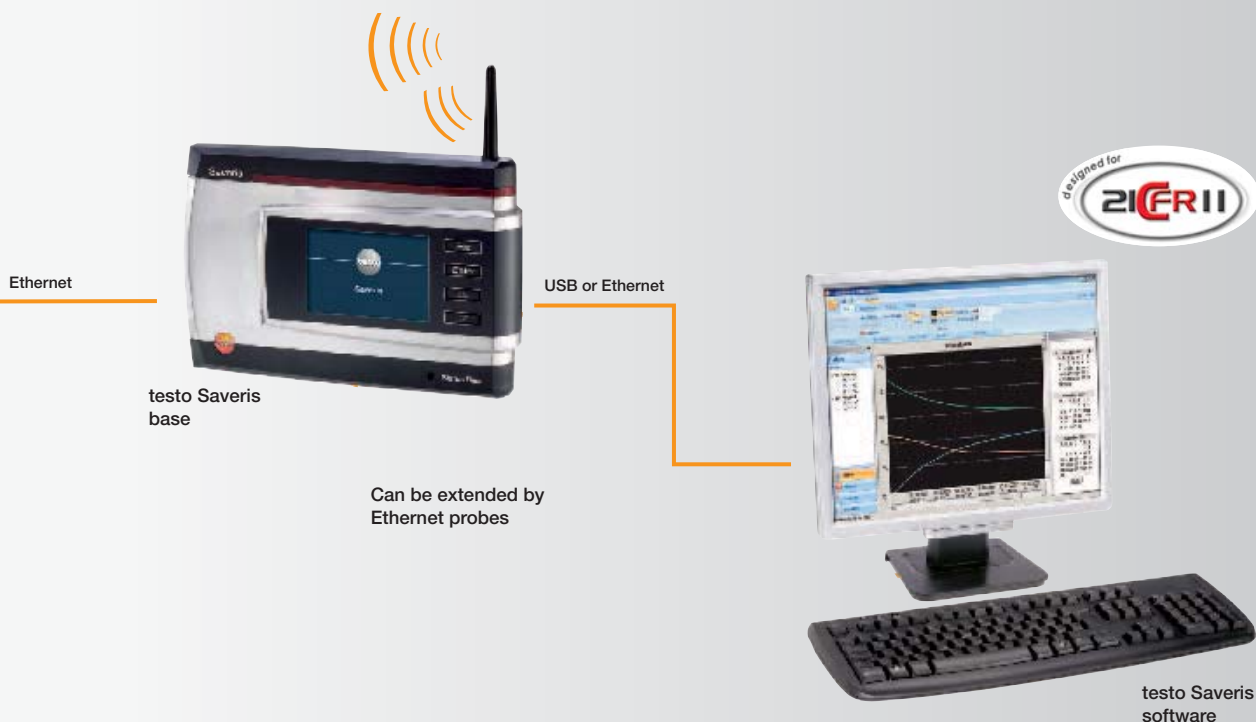
## testo Saveris™ System overview

### testo Saveris base

The base is the heart of testo Saveris and can save 40,000 readings per measurement channel independent of the PC. This corresponds to around one year of memory capacity at a measuring rate of 15 minutes. The system data and alarms are visible via the display of the Saveris base.

### testo Saveris software

The testo Saveris software offers simple operation and an intuitive user interface. The Saveris software is available in two different versions: as the basic version SBE (Small Business Edition) or the PROF (Professional) software version with diverse additional options, or as a CFR version. The CFR software fulfils the requirements of 21 CFR Part 11 of the FDA, and is thus validatable.








Overview of software versions	SBE	PROF	CFR
Simple installation and configuration	•	•	•
Diagrams / tables / alarm overview / PDF reports	•	•	•
Calendar management	•	•	•
Representation of probe groups	•	•	•
Transmission of alarms (e-mail, SMS, relay)	•	•	•
Comprehensive alarm management		•	•
Automatic refresh of measurement data ("Online mode")		•	•
Measurement data on background photo of locations		•	•
Integration into network (client server)		•	•
Allocation of access rights to probe groups		•	•
Conform to 21CFR11 (validatable)			•
Electronic signature			•
Audit trail			•
Allocation of access rights on 3 user levels			•



## testo Saveris™ Components: Radio probes

Probe versions with internal and external temperature sensors and with humidity sensors allow the adaptation to every application. The radio probes are available with or without a display as an option. Current measurement data, the battery status and the quality of the radio link are shown in the display.

<div></div> <div>Radio</div>		°C / °F			
		<div>NTC</div> <div>internal</div> <div></div> <div>81 mm</div> <div>Saveris T1</div> <div>Radio probe with internal NTC</div>	<div>NTC</div> <div>internal</div> <div></div> <div>81 mm</div> <div>Saveris T2</div> <div>Radio probe with external probe connection and internal NTC, door contact</div>	<div>NTC</div> <div>external</div> <div></div> <div>81 mm</div> <div>Saveris T3</div> <div>2-channel radio probe with 2 external TC probe connections (Choice of TC characteristics)</div>	<div>TC</div> <div>external</div> <div></div> <div>81 mm</div> <div>Saveris Pt</div> <div>Radio probe with 1 external Pt100 probe connection</div>
Internal sensor	Probe type	NTC			
	Meas. range	-35 to +50 °C			
	Accuracy	±0.4 °C (-25 to +50 °C) ±0.8 °C (remaining range)			
	Resolution	0.1 °C			
External probe	Probe type			TC type K	TC type J
	Meas. range (Instrument)	-50 to +150 °C		-195 to +1350 °C	-100 to +750 °C
				TC type T	TC type S
	Accuracy (Instrument)	±0.2 °C (-25 to +70 °C) ±0.4 °C (remaining range)		±0.5 °C or 0.5% of mv	
Resolution (Instrument)			at 25 °C ±0.1 °C (0 to +60 °C) ±0.2 °C (-100 to +200 °C) ±0.5 °C (remaining range)		
Conn.				Pt100	
		NTC via mini-DIN socket, door contact connection cable included in delivery (1.80 m)		-200 to +600 °C	
				at 25 °C ±0.1 °C (0 to +60 °C) ±0.2 °C (-100 to +200 °C) ±0.5 °C (remaining range)	
		0.1 °C		0.01 °C	
		0.1 °C / TC type S 1 °C			
		NTC via mini-DIN socket, door contact connection cable included in delivery (1.80 m)		1 Pt100 via mini-DIN socket	
Dimensions (housing):		80 x 85 x 38 mm			
Weight		Approx. 240 g			
Battery life (Type: 4 AA batteries)		Battery life at +25 °C, 3 years; for freezer applications, 3 years with L91 Photo lithium Energizer batteries)			
Material/Housing		Plastic			
Protection class		IP68		IP54	IP68
Radio frequency		868 MHz / 2.4 GHz			
Measuring rate		Standard 15 min, 1 min to 24 h can be set			
Conformity with standards		DIN EN 12830			
Oper. temp.		-35 to +50 °C		-20 to +50 °C	
Storage temp.		-40 to +55 °C			
Display (optional)		LCD, 2 lines; 7-segment with symbols			
Transmission distance		approx. 300 m free field at a frequency of 868 MHz, approx. 100 m free field at a frequency of 2.4 GHz			
Wall bracket		included			

Ordering data Wireless probes	Part no.	Part no.	Part no.	Part no.
	Version without display		Version with display	
	868 MHz	2.4 GHz	868 MHz	2.4 GHz
Saveris T1 Radio probe with internal NTC	0572 1110	0572 1150	0572 1120	0572 1160
Saveris T2 Radio probe with external probe connection and internal NTC, door contact	0572 1111	0572 1151	0572 1121	0572 1161
Saveris T3 2-channel radio probe with 2 external TC probe connections (Choice of TC characteristics)	0572 9112	0572 9152	0572 9122	0572 9162
Saveris Pt Radio probe with 1 external Pt100 probe connection	0572 7111	0572 7151	0572 7121	0572 7161

The alkali manganese batteries AA (0515 0414) are included in these ordering data (analog coupler excluded). Saveris probes are delivered with a calibration protocol of the factory adjustment data. Calibration certificates must be ordered separately.

# testo Saveris™ Components: Radio probes



## Radio

°C / °F and %RH				mA and V	
%RH NTC external		%RH NTC internal		%RH NTC external	
Saveris H2D Wireless humidity probe		Saveris H3 Humidity radio probe		Saveris H4D Wireless probe with 1 external humidity probe connection	
Saveris U1 Wireless probe with current/voltage output					
Internal sensor	Probe type	NTC		Humidity sensor	
	Meas. range	-20 to +50 °C		0 to 100 %RH	
	Accuracy	±0.5 °C		±3 %RH	
	Resolution	0.1 °C		0.1 °C / 0.1 °C td	
External probe	Probe type	NTC	Humidity sensor	NTC	Humidity sensor
	Meas. range (Instrument)	-20 to +50 °C	0 to +100 %RH*	-20 to +70 °C	0 to +100 %RH*
	Accuracy (Instrument)	±0.5 °C	to 90 %RH: ±2 %RH > 90 %RH: ±3 %RH	±0.2 °C	see probes
	Resolution (Instrument)	0.1 °C	0.1% / 0.1 °C td	0.1 °C	0.1% / 0.1 °C td
Conn.		non-exchangeable stump probe		1 x external humidity probe mini DIN socket	
Dimensions (housing):		85 x 100 x 38 mm		80 x 85 x 38 mm	
Weight		Approx. 256 g		Approx. 245 g	
Battery life (Type: 4 AA batteries)		Battery life at +25 °C, 3 years; for freezer applications, 3 years with L91 Photo lithium Energizer batteries)		Supply: Mains unit 6.3 V DC, 2 to 30 V DC max. 25 V AC	
Material/Housing		Plastic		IP54	
Protection class		IP54		IP42	
Radio frequency		868 MHz / 2.4 GHz		IP54	
Measuring rate		Standard 15 min, 1 min to 24 h can be set			
Oper. temp.		-20 to +50 °C			
Storage temp.		-40 to +55 °C			
Display (optional)		LCD, 2 lines; 7-segment with symbols		(no display)	
Transmission distance		approx. 300 m free field at a frequency of 868 MHz, approx. 100 m free field at a frequency of 2.4 GHz			
Wall bracket		included			

\*not for continuous high-humidity applications

Ordering data Wireless probes	Part no.	Part no.	Part no.	Part no.
	Version without display		Version with display	
	868 MHz	2.4 GHz	868 MHz	2.4 GHz
Saveris H3Wireless probe with internal humidity sensor	0572 6110	0572 6150	0572 6120	0572 6160
Saveris H2D Wireless probe with external humidity sensor 2%RH, radio frequency 868 MHz (with display)			0572 6122	0572 6162
Saveris H4D Wireless humidity probe with external probe connection, radio frequency 868 MHz (with display)			0572 6124	0572 6164
Saveris U1Analog coupler with 1 current/voltage output (order mains unit separately)	0572 3110	0572 3150		

The alkali manganese batteries AA (0515 0414) are included in these ordering data (analog coupler excluded). Saveris probes are delivered with a calibration protocol of the factory adjustment data. Calibration certificates must be ordered separately.



## testo Saveris™ Components: Base, Router, Converter and accessories

Base	Part no.	Saveris router	Part no.
Saveris base, radio frequency 868 MHz	0572 0120	Saveris router, 868 MHz, radio transmission medium	0572 0119
Saveris base, radio frequency 868 MHz, GSM module integrated (for SMS alarm)	0572 0121	Saveris router, 2.4 GHz, radio transmission medium	0572 0159
Saveris base, radio frequency 2.4 GHz	0572 0160		
Saveris base, radio frequency 2.4 GHz, GSM module integrated (for SMS alarm)	0572 0161	<b>Saveris converter</b>	<b>Part no.</b>
No mains units or aerials with magnetic base are contained in this ordering data.		Saveris converter, 868 MHz, converts the radio transmission medium to Ethernet	0572 0118
		Saveris converter, 2.4 GHz, converts the radio transmission medium to Ethernet	0572 0158
		No mains units are contained in this ordering data.	
Power supply	Part no.	Software	Part no.
Battery for radio probe (4 AA alkali manganese mignon batteries)	0515 0414	SBE software, incl. USB connecting cable base-PC	0572 0180
Battery for radio probe for use below -10 °C (4 Energizer L91 Photo lithium)	0515 0572	PROF software, incl. USB connecting cable base-PC	0572 0181
100-240 V AC / 6.3 V DC international mains unit for mains operation or battery charging in instrument	0554 1096	CFR software, incl. Ethernet connection cable PC to Base	0572 0182
Mains unit (top-hat rail mounting) 90 to 264 VAC/24 VDC (2.5 A)	0554 1749	Saveris adjustment software incl. connection cable for wireless and Ethernet probes	0572 0183
Mains unit (desk-top) 110 to 240 VAC/24 VDC (350mA)	0554 1748		
Other features	Part no.	Calibration Certificates	Part no.
Magnetic foot aerial (dualband) with 3 m cable, for base with GSM module (not suitable for USA, Canada, Chile, Argentina, Mexico)	0554 0524	ISO calibration certificate/temperature Temperature probes; calibration points -8 °C; 0 °C; +40 °C per channel/instrument (suitable for Saveris T1/T2)	0520 0171
Magnetic foot aerial (quadband) for base with GSM module	0554 0525	ISO calibration certificate/temperature Temperature probes; calibration points -18 °C; 0 °C; +60 °C; per channel/instrument (not suitable for Saveris T1/T2)	0520 0151
Alarm module (visual + acoustic), can be connected to base alarm relay, Ø 70 x 164 mm, 24 V AC/DC / 320 mA, perm. light: red, perm. tone: buzzer approx. 2.4 kHz (Mains unit 0554 1749 required)	0572 9999 ID-Nr. 0699 6111/1	DAkKS calibration certificate/Temperature* Temperature probes; calibration points -20 °C; 0 °C; +60 °C; per channel/instrument (not suitable for Saveris T1/T2)	0520 0261
Programming adapter (from mini-DIN to USB) for Ethernet probe and converter (necessary if no DHCP server available)	0440 6723	ISO calibration certificate humidity Humidity probe, calibration points 11.3 %RH and 75.3 %RH at +25 °C/+77 °F; per channel/instrument	0520 0076
		DAkKS calibration certificate humidity* Humidity probe, calibration points 11.3 %RH and 75.3 %RH at +25 °C; per channel/instrument	0520 0246

\*Successor organization of the DKD

### Alarm module



Alarm module (visual + acoustic), can be connected to base alarm relay, Ø 70 x 164 mm, 24 V AC/DC / 320 mA, perm. light: red, perm. tone: buzzer approx. 2.4 kHz (Mains unit 0554 1749 required)  
ID-Nr. 0699 6111/1

**Part no. 0572 9999**

### Software versions



SBE software, incl. USB connecting cable base-PC

**Part no. 0572 0180**

PROF software, incl. USB connecting cable base-PC

**Part no. 0572 0181**

CFR software, incl. Ethernet connection cable PC to Base

**Part no. 0572 0182**

Sintered caps for probes Saveris H1 E, H2 E and H2 D	Illustration	Part no.
Metal protective cap (open), fast reaction time at flow velocities < 7 m/s (not suitable for dusty atmospheres), for measurement in flow velocities of less than 10 m/s		0554 0755
Stainless steel sintered filter, pore size 100 µm, probe protection in dusty atmospheres or higher flow velocities, for measurements at higher flow velocities or in contaminated air		0554 0647
Wire mesh filter, probe protection from coarse particles		0554 0757
Sintered PTFE filter, Ø 12 mm, for corrosive media, High humidity range (long-term measurements), high flow velocities.		0554 0756
testo saline pots for control and humidity adjustment of humidity probes, 11.3 %RH and 75.3 %RH with adapter for humidity probe, quick checks or calibration of humidity probe		0554 0660



# testo Saveris™ Technical data



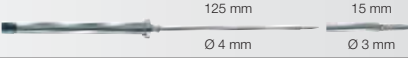

Technical data	
	Saveris-Base
Memory	40,000 values per channel (total max. 10,160,000 values)
Dimensions	225 x 150 x 49 mm
Weight	Approx. 1510 g
Protection class	IP42
Material/Housing	Diecast zinc / plastic
Radio frequency	868 MHz / 2.4 GHz
Power supply (absolutely necessary)	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, power consumption < 4 W
Rech. batt.	Li-ion battery (for data back-up and for emergency SMS if power supply fails)
Oper. temp.	-10 to +50 °C
Storage temp.	-40 to +60 °C
Display	graphical display, 4 control keys
Interfaces	USB, radio, Ethernet
Connectable radio probe	max. 15 probes can be directly connected via radio interface, max. 150 total via radio / router / converter / Ethernet, max. 254 channels
Alarm relay	max. 1 A, max. 30 W, max. 60/25 V DC/AC, NC or NO contact
GSM module	850 / 900 / 1800 / 1900 MHz not valid for Japan and South Korea
Set up	Table base and wall bracket included


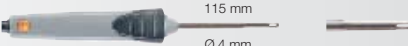
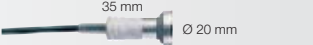
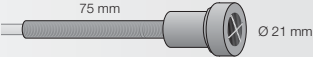
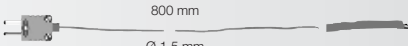
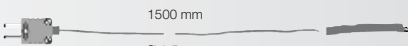
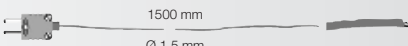
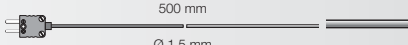
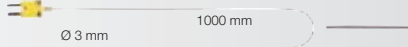


Technical data		
	Saveris router	Saveris converter
Dimensions	Approx. 85 x 100 x 38 mm	Approx. 85 x 100 x 35 mm
Weight	Approx. 180 g	Approx. 190 g
Power supply	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, power consumption < 0.5 W	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, PoE, power consumption < 2 W
Oper. temp.	-20 to +50 °C	-20 to +50 °C
Storage temp.	-40 to +60 °C	-40 to +60 °C
Material/Housing	Plastic	Plastic
Protection class	IP54	IP54
Interfaces	Radio	Radio, Ethernet
Connectable radio probe	max. 5	max. 15
Wall bracket	included	included


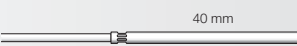
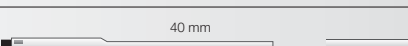
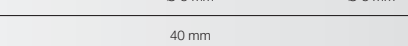
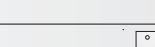
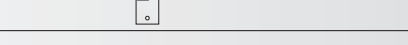
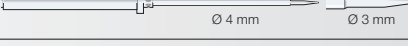


## testo Saveris™ Accessories: External temperature probes

Pt100	Plug-in probes	Illustration	Meas. range	Accuracy	t99	Part no.
	Robust, Pt100 stainless steel food probe (IP65)	 125 mm Ø 4 mm 15 mm Ø 3 mm	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range)	10 s	0609 2272 Conn.: Fixed cable
	Robust, waterproof Pt100 immersion/penetration probe	 114 mm Ø 5 mm 50 mm Ø 3.7 mm	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range)	12 s	0609 1273 Conn.: Fixed cable
	Connection cable for unlimited Pt100 stationary probes with screw terminals (4-wire technology), max. cable length: 20 m					0554 0213



TC	Plug-in probes	Illustration	Meas. range	Accuracy	t99	Part no.
	Stationary probe with stainless steel sleeve, TC Type K	 40 mm Ø 6 mm	-50 to +205 °C	Class 2*	20 s	0628 7533 Conn.: Fixed cable 1.9 m
	Robust air probe, T/C Type K	 115 mm Ø 4 mm	-60 to +400 °C	Class 2*	25 s	0602 1793 Conn.: Fixed cable 1.2 m
	Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K	 35 mm Ø 20 mm	-50 to +170 °C	Class 2*	150 s	0602 4792 Conn.: Fixed cable
	Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K	 75 mm Ø 21 mm	-50 to +400 °C	Class 2*		0602 4892 Conn.: Fixed cable 1.6 m
	Thermocouple with TC adapter, flexible, 800mm long, fibre glass, TC Type K	 800 mm Ø 1.5 mm	-50 to +400 °C	Class 2*	5 s	0602 0644
	Thermocouple with TC adapter, flexible, 1500mm long, fibre glass, TC Type K	 1500 mm Ø 1.5 mm	-50 to +400 °C	Class 2*	5 s	0602 0645
	Thermocouple with TC adapter, flexible, 1500mm long, PTFE, TC Type K	 1500 mm Ø 1.5 mm	-50 to +250 °C	Class 2*	5 s	0602 0646
	Immersion tip, flexible, TC Type K	 500 mm Ø 1.5 mm	-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	 Ø 3 mm 1000 mm	-200 to +1300 °C	Class 1*	4 s	0602 5693

\*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).

NTC	Plug-in probes	Illustration	Meas. range	Accuracy	t99	Part no.
	Stub probe, IP 54	 35 mm Ø 3 mm	-20 to +70 °C	±0.2 °C (-20 to +40 °C) ±0.4 °C (+40.1 to +70 °C)	15 s	0628 7510
	Stationary probe with aluminium sleeve, IP 65	 40 mm Ø 6 mm	-30 to +90 °C	±0.2 °C (0 to +70 °C) ±0.5 °C (remaining range)	190 s	0628 7503* Conn.: Fixed cable 2.4 m
	Accurate imm./pen. probe, 6m cable, IP 67	 40 mm Ø 3 mm Ø 3 mm	-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (-35 to -25.1 °C) ±0.4 °C (+75 to +80 °C)	5 s	0610 1725* Conn.: Fixed cable 6 m
	Accurate immersion/penetration probe, cable: 1.5 m long, IP 67	 40 mm Ø 3 mm Ø 3 mm	-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (-35 to -25.1 °C) ±0.4 °C (+75 to +80 °C)	5 s	0628 0006* Conn.: Fixed cable 1.5 m
	Wall surface temperature probe, e.g. to prove damage in building material		-50 to +80 °C	±0.2 °C (0 to +70 °C)	20 s	0628 7507 Conn.: Fixed cable 3 m
	Stainless steel NTC food probe (IP65) with PUR cable	 125 mm Ø 4 mm 15 mm Ø 3 mm	-50 to +150 °C <sup>2)</sup>	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 2211* Conn.: Fixed cable 1.6 m
	Waterproof NTC immersion/penetration probe	 115 mm Ø 5 mm 50 mm Ø 4 mm	-50 to +150 °C	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	10 s	0613 1212 Conn.: Fixed cable 1.2 m

\* Probe tested to EN 12830 for suitability in the transport and storage sectors

2) Long-term meas. range +125°C, short-term +150°C (2 minutes)

%RH	Plug-in probes	Illustration	Meas. range	Accuracy	Part no.
	Humidity / Temperature Probe 12mm	 Ø 12 mm	-20 to +70 °C, 0 to +100 %RH	±0.3 °C, ±2 %RH (2 to 98 %RH)	0572 6172
	Humidity / Temperature Probe 4 mm	 Ø 4 mm	0 to +40 °C, 0 to +100 %RH	±0.3 °C, ±2 %RH (2 to 98 %RH)	0572 6174

The specified accuracy class of the Saveris radio and Ethernet probe is achieved using these external probes.

## testo Saveris™ Examples of applications



### Temperature monitoring in specialist retailers and large-scale kitchens

The measurement data is saved centrally and can thus be called up at any time. It goes without saying that the testo Saveris conforms to the food standard EN 12830. Using this uninterrupted documentation that testo Saveris offers, you always play it safe when it comes to monitoring of your temperatures.



### Easiest operation of testo Saveris

Sabine Steinbrunner, proprietor of food product market 'Culinara'

"I was very pleasantly surprised at how easy the installation and operation were."



### Documentation and issuing alarms in bakeries and butcher shops

The uninterrupted monitoring of the cooling chain is required for food specialist retailers.

Fresh goods are required by the customer but are at the same time required by the legislation in the hygiene area.

testo Saveris automates the monitoring of the ambient and product temperatures in store rooms, cold rooms, freezer areas and cooled sales counters. Naturally an alarm is issued immediately whenever a limit value is exceeded, on site as well as remotely.



### Automatic monitoring of the cooling chain saves time

Werner Schmidt, proprietor of butcher's shop 'Metzgerei Haller'

"With testo Saveris the temperature monitoring of the food practically runs itself. Now I have more time for the customers!"



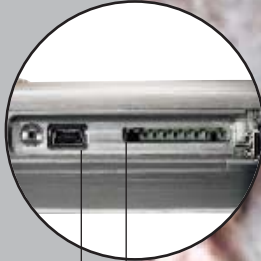


## Data loggers — Log, save, print and analyse

A high level of user-friendliness and absolute security characterize the new generation of Testo data loggers. With the current range of a total of 13 data loggers, Testo offers the right solution for various applications. In addition to the eleven new instruments from the testo 175 and testo 176 series, it also includes the two mini data loggers testo 174T and testo 174H.

The testo 175 series consists of four compact data loggers for the measurement of temperature and humidity. The testo 176 series contains seven data loggers which are especially suited to applications in demanding surroundings, such as in laboratories. An absolute innovation in this series is the testo 176 P1, with which absolute pressure can be measured and documented, in addition to temperature and humidity.

All new data loggers from the series testo 175 and testo 176 have a USB and an SD card interface, making readout of the data fast and easy. The considerably higher memory capacity and the power supply using conventional batteries are further plus points of the new products. It goes without saying that the proven one-button menu structure, which offers absolute operating convenience, has been retained in the new generation of data loggers.



USB interface  
SD card



One-button menu structure



Anti-theft lock



## The right logger software for every application

Three software versions are available for programming and reading out the data loggers, as well as for the analysis of the data. Depending on the requirement, Testo offers the right software solution. The testo ComSoft Basic 5 with new graphic user interface offers all the basic functions of a standard logger software. Independently of where the data loggers are used – the testo ComSoft Basic 5 facilitates the configuration and readout of the instruments as well as the analysis of the data. User-friendliness and intuitive operation are paramount here. Requirements over and above this, such as the correlation of measurement data which have been recorded at different sites, are optimally fulfilled by the testo ComSoft Professional 4. The pharmaceutical industry makes very special demands, whose fulfilment is guaranteed by the testo ComSoft CFR21 Part 11.

### testo ComSoft Basic 5 – for easy operation and convenient analysis

- Graphic user interface guides the user step-by-step through the individual procedures
- Convenient export functions, e. g. for further processing of the data in Microsoft Excel, or the generation of a PDF which can be made available to other users
- The testo ComSoft Basic 5 offers all the basic functions of a logger software
- **Free download** of the testo ComSoft Basic 5 with mandatory registration

More information:  
[www.testo.com](http://www.testo.com)

CD ComSoft Basic 5, if free,  
registration-mandatory download not  
wanted

Order no.: 0572 0580

### testo ComSoft Professional 4 – for demanding users

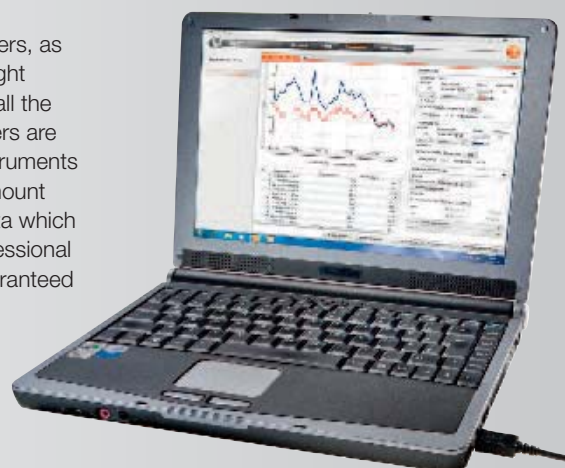
- The ComSoft Professional 4 offers analysis and presentation possibilities over and above the basic functions
- Many measurement sites and data loggers can be organized in a clear tree structure, for example

Order no.: 0554 1704

### testo ComSoft CFR 21 Part 11 – specially for the requirements of the pharmaceutical industry

- The ComSoft CFR 21 Part 11 is a validation-capable software, and fulfils all the stipulations of the FDA (Food and Drug Administration) in the framework of a closed system
- Conformity with the CFR guidelines is confirmed by an independent institute

Order no.: 0554 1705



## Secure and simple – an overview of the new data loggers testo 175 and testo 176:

#### Safety

- **Data security** thanks to non-volatile memory – even when the batteries are spent, the data are not lost
- **Password protection** prevents changes by unauthorized persons
- **Anti-theft lock** – with the help of a wall holder, the loggers can be permanently attached and secured against theft with a padlock
- **Robustness** – three data loggers from the testo 176 series have a **metal housing** which offers optimum protection from impact

#### User-friendliness






- Two **standard interfaces** (mini USB and SD card) allow easy programming and readout of the loggers via direct connection to the PC  
– **an additional interface for the readout is not required**
- **Large display** for non-problematic reading of measurement data – even in badly lit rooms, thanks to backlighting at the press of a button
- **Operating comfort** thanks to one-button menu structure – a click on the “Go” button and the recording of the measurement values begins
- **Longer battery life** due to improved energy management – the loggers testo 176 record data without interruption for up to 8 years
- The **large memory** of the loggers testo 176 collects up to 2 million measurement values – the logger needs to be read out considerably less often



## Overview of logger series testo 174, 175, 176

Type name	testo 174 T	testo 174 H	testo 175 T1	testo 175 T2	testo 175 T3
Description	1-channel temperature logger with internal sensor (NTC)	2-channel temperature and humidity data logger with internal sensor (NTC/capacitive humidity sensor)	1-channel temperature logger with internal sensor (NTC)	2-channel temperature data logger with internal (NTC), and external sensor connection (NTC)	2-channel temperature data logger with external sensor connections (TC Type T und Type K)
Illustration	<p>All data loggers can be validated<sup>1</sup></p> 				
Sensor	NTC	NTC/ capacitive humidity sensor	NTC	NTC	TC (Types T and K)
Channels	1 x internal	2 x internal	1 x internal	1 x internal, 1 x external	2 x external
Measurement units	°C, °F	°C, °F, %rF, %RH	°C, °F	°C, °F	°C, °F
Measuring range	-30 to +70 °C	-20 to +70 °C internal 0 to 100 %RH	-35 to +55 °C internal	-35 to +55 °C internal -40 to +120 °C external	-50 to +400 °C (Type T) -50 to +1000 °C (Type K)
Accuracy ± 1 digit	±0,5 °C (-30 to +70 °C)	±0,5 °C (-20 to +70 °C) ±3 %RH (2 to 98 %RH) +0,03 %RH/K	±0,5 °C (-35 to +55 °C)	±0,5 °C (-35 to +55 °C)	±0,5 °C (-50 to +70 °C) ±0,7 % of mv (+70,1 to +1000 °C)
Resolution	0,1 °C	0,1 °C, 0,1 %rF	0,1 °C	0,1 °C	0,1 °C
Battery life (at +25 °C)	500 days at 15 min. meas. rate	1 year at 15 min. meas. rate	3 years at 15 min. meas. rate	3 years at 15 min. meas. rate	3 years at 15 min. meas. rate
Operating temperature	-30 to +70 °C	-20 to +70 °C	-35 to +55 °C	-35 to +55 °C	-20 to +55 °C
Storage temperature	-40 to +70 °C	-40 to +70 °C	-35 to +55 °C	-35 to +55 °C	-20 to +55 °C
Dimensions	60 x 38 x 18,5 mm	60 x 38 x 18,5 mm	89 x 53 x 27 mm	89 x 53 x 27 mm	89 x 53 x 27 mm
Battery type	2 x CR 2032 Lithium	2 x CR 2032 Lithium	3 x AlMn Type AAA or Energizer	3 x AlMn Type AAA or Energizer	3 x AlMn Type AAA or Energizer
Protection class	IP 65	IP 20	IP 65	IP 65	IP 65
Meas. cycle	1 min - 24 h	1 min - 24 h	10 sec - 24 h	10 sec - 24 h	10 sec - 24 h
Memory	16.000 readings	16.000 readings	1 mio. measurement values	1 mio. measurement values	1 mio. measurement values
Software	ComSoft Basic 5 ComSoft Professional 4	ComSoft Basic 5 ComSoft Professional 4	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11
Order no.:	0572 1560	0572 6560	0572 1751	0572 1752	0572 1753






Type name	testo 175 H1	testo 176 T1	testo 176 T2	testo 176 T3	testo 176 T4
Description	2-channel temperature and humidity data logger with external humidity sensor (NTC/capacitive humidity sensor)	1-channel temperature logger in metal housing with highly accurate internal sensor (Pt100)	2-channel temperature logger with connections for highly accurate external sensor (Pt100)	4-channel temperature data logger in metal housing with external sensor connection (TC Type T, Type K and Type J)	4-channel temperature data logger with external sensor connections (TC Type T, Type K and Type J)
Illustration					
All data loggers can be validated <sup>1</sup>					
Sensor	NTC/ capacitive humidity sensor	Pt100 class A	Pt100 class A	TC (Types T , K and J)	TC (Types T , K and J)
Channels	2 x internal (stump)	1 x internal	2 x external	4 x external	4 x external
Measurement units	°C, °F, %rF, %RH, td, g/m³	°C, °F	°C, °F	°C, °F	°C, °F
Measuring range	-20 to +55 °C -40 to +50 °C <sub>td</sub> 0 to 100 %RH	-35 to +70 °C	-50 to +400 °C	-200 to +400 °C (Type T) -195 to +1000 °C (Type K) -100 to +750 °C (Type J)	-200 to +400 °C (Type T) -195 to +1000 °C (Type K) -100 to +750 °C (Type J)
Accuracy ± 1 digit	±2 %RH (2 to 98 %RH) +0.03 %RH/K ±0.4 °C (-20 to +55 °C)	±0.2 °C (-35 to +70 °C)	±0.2 °C (-50 to +200 °C) ±0.3 °C (+200.1 to +400 °C)	±1% of mv (-200 to -100.1 °C) ±0.3 °C (-100 to +70 °C) ±0.5% of mv (+70.1 to +1000 °C)	±1% of reading (-200 to 100.1 °C) ±0.3 °C (-100 to +70 °C) ±0.5% of m.v. (+70.1 to +1000 °C)
Resolution	0.1 °C, 1 %RH	0,01 °C	0,01 °C	0,1 °C	0,1 °C
Battery life (at +25 °C)	3 years at 15 min. meas. rate	8 years at 15 min. meas. rate	8 years at 15 min. meas. rate	8 years at 15 min. meas. rate	8 years at 15 min. meas. rate
Operating temperature	-20 to +55 °C	-35 to +70 °C	-35 to +70 °C	-20 to +70 °C	-20 to +70 °C
Storage temperature	-20 to +55 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Dimensions	149 x 53 x 27 mm	103 x 63 x 33 mm	103 x 63 x 33 mm	103 x 63 x 33 mm	103 x 63 x 33 mm
Battery type	3 x AlMn Type AAA or Energizer	1 x Lithium (TLH-5903)	1 x Lithium (TLH-5903)	1 x Lithium (TLH-5903)	1 x Lithium (TLH-5903)
Protection class	IP 54	IP 68	IP 65	IP 54	IP 54
Meas. cycle	10 sec - 24 h	1 sec - 24 h	1 sec - 24 h	1 sec - 24 h	1 sec - 24 h
Memory	1 mio. measurement values	2 mio. measurement values	2 mio. measurement values	2 mio. measurement values	2 mio. measurement values
Software	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11
Order no.:	0572 1754	0572 1761	0572 1762	0572 1752	0572 1764



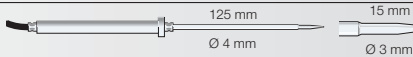
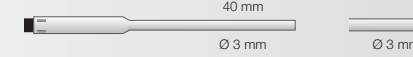
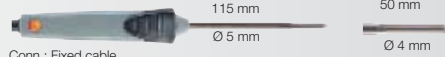

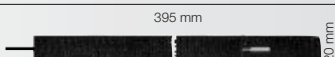


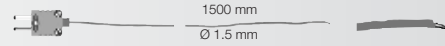



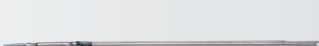




## Overview of logger series testo 174, 175, 176



Type name	testo 176 H1	testo 176 H2	testo 176 P1
Description	4-channel temperature and humidity data logger with external sensor connections (NTC/capacitive humidity sensor)	4-channel temperature and humidity data logger in metal housing with external sensor connections (NTC/capacitive humidity sensor)	5-channel pressure, temperature and humidity data logger with internal sensor (absolute pressure) and external sensor connections (NTC/capacitive humidity sensor)
Illustration	<p>All data loggers can be validated<sup>1</sup></p>   		
Sensor	NTC/ capacitive humidity sensor	NTC/ capacitive humidity sensor	NTC/ capacitive humidity sensor/ absolute pressure sensor
Channels	2 probes, 4 external channels	2 probes, 4 external channels	1 x internal, 2 probes, 4 external channels
Measurement units	°C, °F, %rF, %RH, td, g/m <sup>3</sup> , WB	°C, °F, %rF, %RH, td, g/m <sup>3</sup> , WB	°C, °F, %rF, %RH, td, g/m <sup>3</sup> , hPa, mbar, in Hg, in H <sub>2</sub> O, psi
Measuring range	-20 to +70 °C -40 to +70 °C <sub>id</sub> 0 to 100 %RH	-20 to +70 °C -40 to +70 °C <sub>id</sub> 0 to 100 %RH	-20 to +70 °C -40 to +70 °C <sub>id</sub> 0 to 100 %RH / 600 mbar to 1100 mbar
Accuracy ± 1 digit	±0.2 °C (-20 to +70 °C) ±0.4 °C (rest of measuring range)	±0.2 °C (-20 to +70 °C) ±0.4 °C (remaining meas. range)	±0.2 °C (-20 to +70 °C) ±0.4 °C (remaining measuring range) ±3 mbar (0 to 50 °C)
Resolution	0.1 °C, 0.1 %RH	0.1 °C, 0.1 %RH	0.1 °C, 0.1 %RH, 1 mbar
Battery life (at +25 °C)	8 years at 15 min. meas. rate	8 years at 15 min. meas. rate	8 years at 15 min. meas. rate
Operating temperature	-20 to +70 °C	-20 to +70 °C	-20 to +70 °C
Storage temperature	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Dimensions	103 x 63 x 33 mm	103 x 63 x 33 mm	103 x 63 x 33 mm
Battery type	1 x Lithium (TLH-5903)	1 x Lithium (TLH-5903)	1 x Lithium (TLH-5903)
Protection class	IP 65	IP 65	IP 54
Meas. cycle	1 sec - 24 h	1 sec - 24 h	1 sec - 24 h
Memory	2 mio. measurement values	2 mio. measurement values	2 mio. measurement values
Software	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11	ComSoft Basic 5 ComSoft Professional 4 ComSoft CFR 21 Part 11
Order no.:	0572 1765	0572 1766	0572 1767

# Probes

NTC	Illustration	Meas. range	Accuracy	t99	Part no.
Stub probe, IP 54		-20 to +70 °C	±0.2 °C (-20 to +40 °C) ±0.4 °C (+40.1 to +70 °C)	15 s	0628 7510
Stationary probe with aluminium sleeve, IP 65		-30 to +90 °C	±0.2 °C (0 to +70 °C) ±0.5 °C (remaining range)	190 s	0628 7503* Conn.: Fixed cable; Cable/length: 2.4 m
Stainless steel NTC food probe (IP65) with PUR cable		-50 to +150 °C**	±0.5% of mv. (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 2211* Conn.: Fixed cable; Cable/length: 2.4 m
Accurate immersion/penetration probe, cable: 1.5 m long, IP 67		-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	5 s	0628 0006*
Waterproof NTC immersion/penetration probe		-50 to +150 °C	±0.5% of mv. (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	10 s	0613 1212 Conn.: Fixed cable
Thermocouple	Illustration	Meas. range	Accuracy	t99	Part no.
Stationary probe with stainless steel sleeve, TC Type K		-50 to +205 °C	Class 2 ****	20 sec	0628 7533 Conn.: Fixed cable; Cable/length: 1.9 m
Pipe wrap probe with Velcro tape for temperature measurements on pipes diameter to max. 120 mm, Tmax. +120 °C, TC Type K		-50 to +120 °C	Class 1 ****	90 sec	0628 0020 Conn.: Fixed cable; Cable/length: 1.5 m
Pipe wrap probe for pipe diameters 5 to 65 mm, with exchangeable measuring head, measuring range briefly up to +280 °C, TC type K		-60 to +130 °C	Class 2 ****	5 sec	0602 4592 Conn.: Fixed cable; Cable/length: 1.2 m
Magnet probe, adhesion approx. 10 N, with magnets, for higher temperatures, for measurements on metal surfaces, TC type K		-50 to +400 °C	Class 2 ****		0602 4892 Conn.: Fixed cable; Cable/length: 1.6 m
Thermocouple with TC plug flexible, length 1500 mm, fibreglass, TC Type K		-50 to +400 °C	Class 2 ****	5 sec	0602 0645
Superfast needle probe for monitoring cooking times in ovens, TC Type T		-50 to +250 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining measuring range)****	2 sec	0628 0030
Pt100	Illustration	Meas. range	Accuracy	t99	Part no.
Robust Pt100 Stainless steel food probe (IP 65)		-50 to +400 °C	Class A (-50 to +300 °C), Class B (rem. meas. range)	10 sec	0609 2272*
Robust, waterproof Pt100 immersion/penetration probe		-50 to +400 °C	Class A (-50 to +300 °C), Class B (rem. meas. range)	12 sec	0609 1273*
Laboratory probe Pt100, glass-coated, Glass tube (Duran 50) exchangeable, resistant to corrosive media		-50 to +400 °C	Class A (-50 to +300 °C), Class B (rem. meas. range)	45 sec 12 sec**	0609 7072
Humidity	Illustration	Meas. range	Accuracy	t99	Part no.
Humidity / temperature probe 12 mm		-0 to +40 °C 0 to +100 %RH	±0.3 °C, ±2 %RH (2 to 98 %RH)		0572 6172
Humidity / temperature probe 4 mm		-0 to +40 °C 0 to +100 %RH	±0.3 °C, ±2 %RH (2 ... 98 %RH)		0572 6174

The specified seal class of the data loggers is achieved with these probes.

\* Probe tested according to EN 12830 for suitability for the areas of transport and storage  
\*\* without protective glass

\*\*\* Long-term measuring range to +125 °C, briefly to +150 °C or +140 °C (2 minutes)

\*\*\*\* Acc. to norm 60584-2, the accuracy of Class 1 refers to -40 to -100 °C (Type K), Class 2 to -40 to +1200 °C (Type K), Class 3 to -200 to +40 °C (Type K)

CD ComSoft Basic 5, if free,  
registration-mandatory download not wanted

Order no.: 0572 0580

testo ComSoft Professional 4 – for demanding users

- The ComSoft Professional 4 offers analysis and presentation possibilities over and above the basic functions
- Many measurement sites and data loggers can be organized in a clear tree structure, for example

Order no.: 0554 1704

testo ComSoft CFR 21 Part 11 – specially for the requirements of the pharmaceutical industry

- The ComSoft CFR 21 Part 11 is a validation-capable software, and fulfils all the stipulations of the FDA (Food and Drug Administration) in the framework of a closed system
- Conformity with the CFR guidelines is confirmed by an independent institute

Order no.: 0554 1705



## Measuring cooking oil quality – quickly and accurately

### testo 270

The cooking oil has been frequently used. Longer use is bad for the quality of the product and can lead to complaints from the customer.

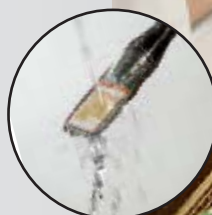
The most important part of the testo 270 cooking oil tester is Testo's new capacitive oil sensor. Using this sensor, measurements are carried out directly in the hot cooking oil which means that control measurements can be quickly carried out while work in the kitchen is in progress. Several deep-fat fryers can be tested back-to-back without the sensor having to cool down.

Maximum use of the cooking oil is made possible. The oil is only changed if the limit value is reached.

- Measurement directly in the deep-fryer
- Sensor is embedded in metal and breakage-proof, can be easily wiped clean thanks to sensor protection layer
- Fast measurement value display in % TPM
- Automatic recognition of measurement end (Auto-Hold %TPM)
- With 2 freely selectable limit values
- Alarm function audible and visual:
  - Lettering "ALARM"
  - 3-colour LED bar (green, yellow, red)
- Configuration menu and limit values can be locked to protect them from external manipulation
- Removable protective case and optional hand strap (dishwasher-proof)
- Conforms to: VO (EG) 1935/2004, EC guideline 2004/108/EC



2-line display with alarm for limit value violations



Breakage-proof, maintenance-free and easy-to-clean sensor with sensor protection layer



Monitoring cooking oil in a deep-fryer

#### Technical data

Measurement parameters	Total Polar Materials (%TPM) Temperature (°C/°F)
Measurement value sensor	Capacitive Testo sensor (%TPM) PTC (°C/°F)
Meas. range	0,5 to 40,0 %TPM +40 to +200 °C
Accuracy	±2 %TPM (+40 to +190 °C) (at ambient temperature of +25 °C) ±1,5 °C
Resolution	0,5 %TPM 0,5 °C/°F
Cooking oil temperature	+40 to +200 °C
Storage temp.	-20 to +70 °C
Oper. temp.	0 to +50 °C
Dimensions	Approx. 354 x 50 x 30 mm (incl. TopSafe)
Weight	Approx. 164 g (incl. batteries, TopSafe, hand strap)
Display	LCD, 2-line, display illumination
Battery type	2 x AA
Battery life	approx. 25 h continuous use approx. 500 measurements
Material/Housing	ABS (white) TopSafe as accessory (included)
Alarm function (can be switched off)	2 limit values freely adjustable, 3-colour LED (green, yellow, red), audible alarm when temperature and limit values are violated or at end of measurement (Auto-Hold)
Further displays	Maximum measuring temperature exceeded Minimum measuring temperature exceeded
Miscellaneous	Response time TPM < 30 sec. (Prerequisite: measurement value is within accuracy limits) Protection class (with TopSafe) IP 65 Warranty 24 months



Washable protective case TopSafe included in delivery



testo 270, set in aluminium case incl. reference oil for monitoring accuracy



#### testo 270, set in a case

Cooking oil tester testo 270 incl. aluminium case, TopSafe, hand strap, reference oil, batteries, adjustment protocol, instruction manual and short instruction manual

Part no. 0563 2700

#### Accessories Ordering data

Accessories Ordering data	Part no.
ISO calibration certificate/analysis, calibration points approx. 3 % TPM and approx. 24 %TPM at 50 °C	0520 0028
Reference oil for calibrating and adjusting the cooking oil tester testo 270 (1 x 100 ml)	0554 2650
Reference oil for calibrating and adjusting the cooking oil tester testo 270 (3 x 100ml)	0554 2651



## Compact pH tester – For liquids

### testo 206 pH1

The pH measuring instrument for fast checks on liquids. The combination of pH immersion tip and temperature probe for fast and efficient temperature compensation is unique.

The Testo pH probe is leak-proof, maintenance-free, robust and not affected by dirt thanks to the large volume of gel electrolyte and the dual wall diaphragm.

- Maintenance-free gel electrolyte
- Built-in temperature probe
- 1, 2 or 3 point calibration possible

pH1 probe head for liquids

TopSafe, protection case (included)

Fast pH check on fruit juices, for example

#### testo 206-pH1 instrument set

One-hand pH/°C measuring instrument, pH1 probe head for liquids, storage cap with gel, TopSafe and belt/wall holder

Part no. 0563 2061

#### testo 206-pH1 Starter Set

One-hand pH/°C measuring instrument, pH1 probe head for liquids, storage cap with gel, calibration dosing bottles 250 ml pH 4+7, TopSafe, belt/wall holder and aluminium case

Part no. 0563 2065

Ordering data as for testo 206-pH2, see below

#### Technical data

Sensor	pH electrode	NTC
Meas. range	0 to 14 pH	0 to 60 °C (Short-term to +80 °C max. 5 min)
Accuracy ±1 digit	±0.02 pH	±0.4 °C
Resolution	0.01 pH	0.1 °C
Storage temp.	-20 to +70 °C	Oper. temp. 0 to +60 °C
Compensation	Automatic temperature compensation	
Measuring rate	2 measurements per second	
Battery life	80 h (Auto Off 10 min)	Dimensions 197 x 33 x 20 mm

## Compact pH tester – For semi-solid food

### testo 206-pH2

The pH measuring instrument for spot checks on semi-solid food, e.g. jelly, cream, cheese, fruit...

The protection case included "TopSafe" (IP 68) is waterproof, hygienic and dishwasher-safe.

- Can be used for food containing protein
- Combination: pH penetration tip with temperature measurement probe
- Automatic full scale value

pH2 probe head for semi-solid food

Leak-proof storage gel

Spot pH checks on milk products

#### testo 206-pH2 instrument set

One-hand pH/°C measuring instrument, pH2 probe head for semi-solid substances, storage cap with gel, TopSafe and belt/wall holder

Part no. 0563 2062

#### testo 206-pH2 Starter Set

One-hand pH/°C measuring instrument, pH2 probe head for semi-solid substances, storage cap with gel, calibration dosing bottles 250 ml pH 4+7, TopSafe, belt/wall holder and aluminium case

Part no. 0563 2066

#### Accessories Ordering data

#### Part no.

Spare pH probe for testo 206 incl. gel storage cap	0650 2061
Spare pH probe pH2 for testo 206 incl. gel storage cap	0650 2062
Storage cap for testo 206 with KCl gel filling	0554 2067
Storage cap for testo 206 with KCl gel filling (pack of 3)	0554 2068
pH buffer solution 4.01 in dosing bottle (250 ml), with DAkKS calibration certificate	0554 2061
pH buffer solution 4.01 in dosing bottle (3 x 250 ml per pack), with DAkKS calibration certificate	0554 2062

#### Accessories Ordering data

#### Part no.

pH buffer solution 7.00 in dosing bottle (250 ml), with DAkKS calibration certificate	0554 2063
pH buffer solution 7.00 in dosing bottle (3 x 250 ml per pack), with DAkKS calibration certificate	0554 2064
pH buffer solution 10.01 in dosing bottle (250 ml), with DAkKS calibration certificate	0554 2065
pH buffer solution 10.01 in dosing bottle (3 x 250 ml per pack), with DAkKS calibration certificate	0554 2066

Technical data as for testo 206-pH1, see above



## Accessories: Buffer solutions for testo 205/206/230

### Testo buffer solutions with pH 4.01/7.00/10.01

pH buffer solution 4.01 in dosing bottle (250 ml), with DAkkS calibration certificate

Part no. 0554 2061

pH buffer solution 7.00 in dosing bottle (250 ml), with DAkkS calibration certificate

Part no. 0554 2063

pH buffer solution 10.01 in dosing bottle (250 ml), with DAkkS calibration certificate

Part no. 0554 2065



### 1 Filling the dosing chamber

- To attain the right buffer quantity



### 2 Adjusting

- Instrument adjustment in fresh pH buffer solution, no measurement errors caused by used buffer solution



### 3 Emptying the dosing chamber

- Empty dosing chamber following adjustment, i.e. no contamination caused by left over buffer solution



## One-hand pH/°C measuring instrument – Robust and maintenance-free

### testo 205

A robust food penetration pH/°C measuring instrument with automatic temperature compensation. The robust penetration measuring tip is interchangeable and not affected by dirt and dust thanks to the hole diaphragm.

- Combined penetration tip with temperature probe
- Measuring tip can be changed by user
- Maintenance-free gel electrolyte
- Backlit display
- Audible key feedback
- 2 line display
- Automatic full-scale value recognition
- 1, 2 or 3 point calibration possible

#### Instruments Set

One-hand pH/°C measuring instrument with penetration probe, storage cap, belt/wall holder

Part no. 0563 2051

#### Starter Set

One-hand pH/°C meas. instr. with penetration probe, storage cap, gel and cal. bottles 250 ml pH 4+7, belt/wall holder and aluminium case

Part no. 0563 2052

#### Accessories Ordering data

#### Part no.

Spare pH probe for testo 205 with gel storage cap

0650 2051

Storage cap for testo 205 with KCL gel filling

0554 2051

Aluminium case for pH measuring instruments testo 205/206 and accessories

0554 2069



pH tip embedded in unbreakable plastic



Constant quality control when storing food

#### Technical data

Sensor	pH electrode	NTC
Meas. range	0 to 14 pH	0 to 60 °C (Short-term to +80 °C max. 5 min)
Accuracy ±1 digit	±0.02 pH	±0.4 °C
Resolution	0.01 pH	0.1 °C
Battery type	4 x Button cell LR44	Oper. temp. 0 to +50 °C
Auto Off	10 min	Storage temp. -20 to +70 °C



## Compact pH/°C measuring instrument – With selection of probes

### testo 230

A complete pH measuring instrument and a high standard thermometer in a compact, water-proof (IP54) housing.

- Probes for liquid, semisolid and solid food
- Display of calibration data and error messages

#### testo 230

Analysis instrument, incl. 2 electrode clips and battery

Part no. 0560 2304

#### The set for solid/semisolid food

testo 230, Food set: testo 230 analysis instrument with 2 electrode clips and battery, Testo buffer set pH 4 and 7, 50ml each, pH food electrode without temperature sensor, storage solution (50ml), robust food penetration probe with special handle (IP 65) and plastic transport case

Part no. 0563 2308

#### Universal set

testo 230, Universal set: testo 230 analysis instrument with 2 electrode clips and battery, Testo buffer set pH 4 and 7, 50ml each, universal plastic electrode with temperature sensor and set case (plastic)

Part no. 0563 2305

pH probes and temperature probes can be connected



Checks pH value and penetration temperature in meat prior to further processing

#### Accessories Ordering data

#### Part no.

Set case (plastic) for measuring instrument, probes and accessories, user-friendly arrangement of measuring instrument and accessories

0516 0230

Testo buffer set pH 4, 7; 50 ml each, for calibration in acidic range

0554 2321

Testo buffer set pH 4, 7, 10; 50ml each, for calibration in acidic and alkaline range

0554 2320

Electrolyte solutions (50 ml) for storing pH electrodes (in watering cap), KCl 3M for pH electrode 0650 2063, 0650 1623, 0650 2064

0554 2332

Storage solution; 50ml, for electrode type 03 pH and type 13 pH

0554 2318

Gel storage cap for standard electrodes

0554 2053

ISO calibration certificate/water analysis, for pH buffer solutions; calibration points 4 pH; 7 pH; 10 pH

0520 0007

ISO calibration certificate/water analysis, at 3 pH values over the measuring range

0520 0037

#### Technical data

Probe type	pH electrode	NTC	Redox electrode
Meas. range	0 to +14 pH	-50 to +150 °C	-1999 to +1999 mV
Accuracy ±1 digit	±0.01 pH (0 to +14 pH)	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (-50 to -25.1 °C) ±0.4 °C (+75 to +99.9 °C)	±1 mV (-999 to 0 mV) ±1 mV (0 to +999 mV) ±2 mV (-1999 to -1000 mV) ±2 mV (+1000 to +1999 mV)
Resolution	0.01 pH	0.1 °C	1 mV
Oper. temp.	0 to +40 °C	Battery life	100 h
Storage temp.	-20 to +70 °C	Dimensions	168 x 72 x 27 mm
Display	LCD, 2 lines	Weight	170 g
Battery type	9V block battery	Material/Housing	ABS
Temperature compensation: man. -10 to +150°C; auto -50 to +150°C			

#### Description

#### Illustration

#### Meas. range

#### Oper. temp. Accuracy

#### Part no.

pH universal plastic electrode without temperature sensor



0 to +14 pH

0 to +60 °C  
Short-term to +80 °C

0650 2063

pH universal plastic electrode with temperature sensor

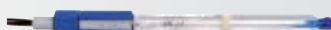


0 to +14 pH

0 to +60 °C  
Short-term to +60 °C

0650 2064

Glass pH electrode with temperature sensor

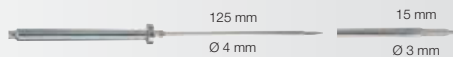


0 to +14 pH

-10 to +80 °C

0650 1623

Stainless steel NTC food probe (IP65) with PUR cable



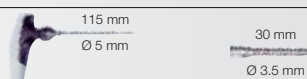
-50 to +150 °C  
Long-term meas. range  
+125 °C, short-term  
+150 °C (2 minutes)

±0.5% of mv (+100 to +150 °C)  
±0.2 °C (-25 to +74.9 °C)  
±0.4 °C (remaining range)

0613 2211

Conn.: Fixed cable

Robust NTC food penetration probe with special handle, reinforced PUR cable



-25 to +150 °C  
Long-term meas. range  
+125 °C, short-term +150 °C (2 minutes)

±0.5% of mv (+100 to +150 °C)  
±0.2 °C (-25 to +74.9 °C)  
±0.4 °C (remaining range)

0613 2411

Conn.: Fixed cable

See testo 110 for temperature probes (except wireless probes)







# Testo: At Your Service

Please send for more information:

Monitoring Instruments for Food Production, Transport and Storage  
Measurement Engineering for Restaurants, Catering and Supermarkets  
Measurement Engineering for Air Conditioning and Ventilation  
Measurement Engineering for Heating and Installation  
Measurement Solutions for Emissions, Service and Thermal Processes  
Measurement Solutions for Refrigeration Technology  
Stationary Measurement Solutions – Transmitters and Monitoring Systems  
Measurement Solutions for Production, Quality Control and Maintenance  
Measurement Solutions for Climate Applications in Industry  
Reference Measurement Technology for Industry

Measuring Instruments For Temperature  
Measuring Instruments for Humidity  
Measuring Instruments For Velocity  
Measuring Instruments for Pressure and Refrigeration  
Multi-Function Measuring Instruments  
Measuring Instruments for Flue Gas and Emissions  
Measuring Instruments for RPM, Analysis, Current/Voltage  
Measuring Instruments For Indoor Air Quality, Light And Sound  
Stationary Measurement Technology Humidity / Differential Pressure / Temperature / Process Displays  
Stationary Measurement Technology Compressed Air Humidity / Compressed Air Consumption

Subject to change without notice.



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## Icons



Backlit display



User-friendly operation based on menu-driven operations



Radio probes for wireless applications



SoftCase or TopSafe to protect instrument or protect instrument from water ingress



Shock-proof



Infrared printer

Efficient paper documentation of measured results on site



RS 232/USB interface

For easy connection to analysis software



Battery and rechargeable battery operation possible



Battery can be recharged in instrument



Testo is a member of Eurotoques, the Association for top chefs with the aim of retaining, promoting and spreading the culture of cooking, eating, drinking, culinary diversity, quality awareness and healthy nutrition using natural ingredients.