



## Temperature measuring instrument (1-channel)

testo 110 - Universally applicable



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Wireless measurement with radio probes possible

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TopSafe, the indestructible protective case, protects from dirt and impact (with TopSafe and probe attached)

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Automatic final value recognition (Auto-hold)

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Audible alarm (settable limit values)

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Min./max. value store

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Large illuminated display

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Certified according to EN 13485

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The testo 110 is a highly accurate, universally applicable temperature measuring instrument. The optional protective cover (TopSafe) protects it reliably from dirt, water and impact; this makes it ideal for use in tough surroundings. With the TopSafe, the testo 110 conforms to HACCP as well as EN 13485.

The monitoring measuring instrument is especially designed for measurements in refrigerated rooms and buildings, and in outdoor areas. In addition to the wide selection of classical probes, a wireless radio probe can simultaneously be used (when the wireless module is used in the instrument). As the user, you can set your own upper and lower limit values in the instrument; as soon as these values are violated, an audible alarm sounds. In addition to this, the minimum and maximum values are clearly shown in the 2-line backlit display.



# Temperature measuring instrument (1-channel)

## 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



Optional protective case TopSafe



Probe connection

### Sensor type NTC

|                      |  |
|----------------------|--|
| Measuring range      | -50 to +150 °C                                       |
| Accuracy<br>±1 digit | ±0.2 °C (-20 to +80 °C)<br>±0.3 °C (remaining range) |
| Resolution           | 0.1 °C   |

### General technical data

|                       |   |
|-----------------------|---|
| Storage temperature   | -40 to +70 °C   |
| Operating temperature | -20 to +50 °C   |
| Battery type          | 9V block battery, 6F22  |
| Battery life          | 200 h (connected probe, backlight off)<br>45 h (radio mode, backlight off)<br>68 h (connected probe, backlight always on)<br>33 h (radio mode, backlight always on) |
| Weight                | 171 g   |
| Dimensions            | 182 x 64 x 40 mm  |
| Housing material      | ABS   |
| Warranty              | 2 years   |
| Standard              | EN 13485  |

### Accessories

### Part no.

#### Accessories for measuring instrument

|  |           |  |
|--|-----------|--|
| 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 , CR2032 AA batteries for radio handle                 | 0515 5028 |  |

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

|   |           |  |
|---|-----------|--|
| 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 | 0554 0188 |  |
| Radio module for measuring instrument, 915.00 MHz FSK, approval for USA, CA, CL   | 0554 0190 |  |

#### Printer and Accessories

|  |           |  |
|--|-----------|--|
| Testo fast printer IrDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries   | 0554 0549 |  |
| Spare thermal paper for printer (6 rolls), permanent ink; measurement data documentation legible for up to 10 years  | 0554 0568 |  |
| 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 |  |

#### Transport and Protection

|   |           |  |
|---|-----------|--|
| TopSafe, protects from impact and dirt (incl. 2 attachment magnets)                         | 0516 0221 |  |
| Case for measuring instrument and probes  | 0516 0210 |  |
| Service case for measuring instrument, probe and accessories, dimensions 454 x 316 x 111 mm | 0516 1200 |  |
| Service case for measuring instrument and probe, dimensions 454 x 316 x 111 mm              | 0516 1201 |  |

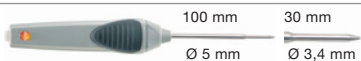
#### Calibration Certificates

|   |           |  |
|---|-----------|--|
| ISO calibration certificate/temperature, for air/immersion probes, calibration points -18°C; 0°C; +60°C                   | 0520 0001 |  |
| 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 |  |
| DAkkS calibration certificate/temperature, meas. instr. with air/immersion probe; calibration points -20 °C; 0 °C; +60 °C | 0520 0211 |  |

# Radio probes

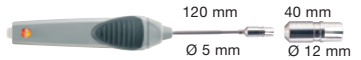
## Radio handles with probe head for air-/ immersion-penetration-meas.

### 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; Radio freq. 869.85 MHz FSK |  |   |   |   | 0554 0189                   |  |
|---|--|---|---|---|-----------------------------|--|
| T/C probe head for air/immersion/penetration measurement (T/C Type K)   |  |   |   |   | 0602 0293                   |  |
| Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL; Radio freq. 915.00 MHz FSK   |  |   |   |   | 0554 0191                   |  |
| T/C probe head for air/immersion/penetration measurement (T/C Type K)   |  |   |   |   | 0602 0293                   |  |
| Dimensions<br>Probe shaft/probe shaft tip   |  | Measuring range                         | Accuracy  | Resolution  | $t_{99}$                    |  |
|    |  | -50 to +350 °C<br>Short-term to +500 °C | Radio handle:<br>$\pm(0.5\text{ °C} + 0.3\% \text{ of m.v.})$ (-40 to +500 °C)<br>$\pm(0.7\text{ °C} + 0.5\% \text{ of m.v.})$ (remaining range)<br>T/C probe head: Class 2 | 0.1 °C (-50 to +199.9 °C)<br>1.0 °C (remaining range) | $t_{99}$ (in water)<br>10 s |  |


## Radio handles with probe head for surface measurement

### 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; Radio freq. 869.85 MHz FSK |  |   |   |   | 0554 0189 |  |
|---|--|---|---|---|-----------|--|
| T/C probe head for surface measurement (T/C Type K)   |  |   |   |   | 0602 0394 |  |
| Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL; Radio freq. 915.00 MHz FSK   |  |   |   |   | 0554 0191 |  |
| T/C probe head for surface measurement (T/C Type K)   |  |   |   |   | 0602 0394 |  |
| Dimensions<br>Probe shaft/probe shaft tip   |  | Measuring range                         | Accuracy  | Resolution  | $t_{99}$  |  |
|    |  | -50 to +350 °C<br>Short-term to +500 °C | Radio handle:<br>$\pm(0.5\text{ °C} + 0.3\% \text{ of m.v.})$ (-40 to +500 °C)<br>$\pm(0.7\text{ °C} + 0.5\% \text{ of m.v.})$ (remaining range)<br>T/C probe head: Class 2 | 0.1 °C (-50 to +199.9 °C)<br>1.0 °C (remaining range) | 5 s       |  |

## Radio handles for attachable T/C probes

### 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 ; Radio freq. 869.85 MHz FSK |                 |   |   |  | 0554 0189 |  |
|--|-----------------|---|---|--|-----------|--|
| Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL; Radio freq. 915.00 MHz FSK  |                 |   |   |  | 0554 0191 |  |
| Illustration   | Measuring range | Accuracy  | Resolution  |  |           |  |
|   | -50 to +1000 °C | $\pm(0.7\text{ °C} + 0.3\% \text{ of m.v.})$ (-40 to +900 °C)<br>$\pm(0.9\text{ °C} + 0.5\% \text{ of m.v.})$ (remaining range) | 0.1 °C (-50 to +199.9 °C)<br>1.0 °C (remaining range) |  |           |  |

## Technical data Radio probes

### Radio immersion/penetration probe, NTC

|              |  |
|--------------|--|
| Battery type | 2 x 3V button cell (CR 2032)                           |
| Battery life | 150 h (meas. rate 0.5 s)<br>2 months (meas. rate 10 s) |

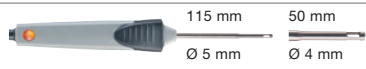

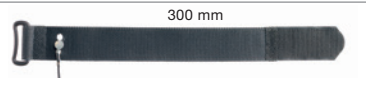
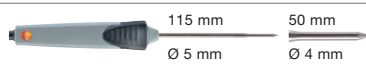

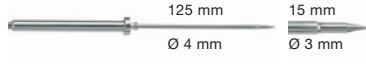
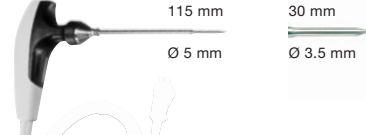
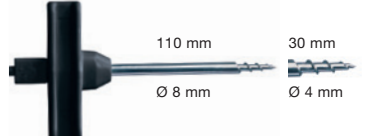
### Radio handle

|              |  |
|--------------|--|
| Battery type | 2 x 3V button cell (CR 2032)                           |
| Battery life | 215 h (meas. rate 0.5 s)<br>6 months (meas. rate 10 s) |

### Common Technical Data

|                       |                                     |
|-----------------------|-------------------------------------|
| Measuring rate        | 0.5 s or 10 s, adjustable on handle |
| Radio coverage        | Up to 20 m (without obstructions)   |
| Radio transmission    | Unidirectional                      |
| Operating temperature | -20 to +50 °C                       |
| Storage temperature   | -40 to +70 °C                       |

# Probes

| Probe type  | Dimensions<br>Probe shaft/probe shaft tip   | Measuring range              | Accuracy  | t <sub>99</sub> | Part no.  |
|---|---|------------------------------|---|-----------------|-----------|
| <b>Air probes</b>   |   |                              |   |                 |           |
| ◆ Efficient, robust NTC air probe, Fixed cable 1.2 m  |  115 mm<br>Ø 5 mm      50 mm<br>Ø 4 mm     | -50 to +125 °C <sup>2)</sup> | ±0.2 °C (-25 to +80 °C)<br>±0.4 °C (remaining range)                                      | 60 s            | 0613 1712 |
| <b>Surface probes</b>   |   |                              |   |                 |           |
| ◆ Waterproof NTC surface probe for flat surfaces, Fixed cable 1.2 m                               |  115 mm<br>Ø 5 mm      50 mm<br>Ø 6 mm     | -50 to +150 °C <sup>2)</sup> | ±0.5% of m.v. (+100 to +150 °C)<br>±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining range) | 35 s            | 0613 1912 |
| Pipe wrap probe with Velcro for pipe diameter to max. 75 mm, Tmax. +75 °C, NTC, Fixed cable 1.5 m |  300 mm                                    | -50 to +70 °C <sup>2)</sup>  | ±0.2 °C (-25 to +70 °C)<br>±0.4 °C (-50 to -25.1 °C)                                      | 60 s            | 0613 4611 |
| <b>Immers./penetr. probes</b>   |   |                              |   |                 |           |
| ◆ Waterproof NTC immersion/penetration probe, Fixed cable 1.2 m                                   |  115 mm<br>Ø 5 mm      50 mm<br>Ø 4 mm    | -50 to +150 °C               | ±0.5% of m.v. (+100 to +150 °C)<br>±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining range) | 10 s            | 0613 1212 |
| <b>Food probes</b>  |   |                              |   |                 |           |
| ◆ Stainless steel NTC food probe (IP65) with PUR cable, Fixed cable 1.6 m                         |  125 mm<br>Ø 4 mm      15 mm<br>Ø 3 mm   | -50 to +150 °C <sup>2)</sup> | ±0.5% of m.v. (+100 to +150 °C)<br>±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining range) | 8 s             | 0613 2211 |
| ◆ Stainless steel NTC food probe (IP67) with PTFE cable to +250°C, Fixed cable                    |  125 mm<br>Ø 4 mm      15 mm<br>Ø 3 mm   | -50 to +150 °C <sup>2)</sup> | ±0.5% of m.v. (+100 to +150 °C)<br>±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining range) | 8 s             | 0613 3311 |
| ◆ Robust NTC food penetration probe with special handle, reinforced PUR cable, Fixed cable        |  115 mm<br>Ø 5 mm      30 mm<br>Ø 3.5 mm | -25 to +150 °C <sup>2)</sup> | ±0.5% of m.v. (+100 to +150 °C)<br>±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining range) | 7 s             | 0613 2411 |
| ◆ Frozen food probe NTC, corkscrew design (incl. plug-in wire)                                    |  110 mm<br>Ø 8 mm      30 mm<br>Ø 4 mm   | -50 to +140 °C <sup>2)</sup> | ±0.5% of m.v. (+100 to +140 °C)<br>±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining range) | 20 s            | 0613 3211 |

◆ The measuring instrument inside TopSafe is waterproof with this probe.  
2) Long-term measurement range +125 °C, short-term +150 °C or +140 °C (2 minutes)

Test Equipment Depot - 800.517.8431  
 99 Washington Street, Melrose, MA 02176  
 TestEquipmentDepot.com