

# Temperature measuring instrument (1-channel)

testo 110 - NTC and Pt100 temperature measuring instrument with App connection

Simple, fast and particularly precise temperature measurement with NTC or Pt100 probes (optionally available)

Fast in-app configuration, graph history, second screen and measurement data memory in the testo Smart App

HACCP-compliant, certified according to EN 13485 for use in the food sector

High-precision measurement results and high system accuracy with digital Pt100 sensors (calibration without measuring instrument)

Audible alarm sounds if a limit value is exceeded













Easy to use and precise in measurement: This is how the testo 110 compact temperature measuring instrument is convincing every day in use. The fast temperature measuring instrument show its strengths particularly in applications in **laboratories or in the food safe environments**:

The optionally available NTC or Pt100 probes cover a comprehensive range of measuring tasks and ensure exact results with particularly high accuracy.

The digital Pt100 probes can also be calibrated without the measuring instrument - so you can easily continue working with a different probe without downtime.

Of course, the testo 110 is HACCP-compliant, certified to EN13485 and, with the optional TopSafe protective cover, dust-tight and protected against water jets (protection class IP65).

The temperature measuring instrument is rounded off by the testo Smart App for smartphones and tablets:

- Configuration of testo 110
- Second display
- Measurement data memory
- Display of the measured values (table, graphic progression)
- Documentation



# Ordering data / technical data / accessories

## testo 110

testo 110, 1-channel temperature measuring instrument NTC / Pt100 with App connection, TUC probe socket and audible alarm, incl. transport bag, calibration protocol and 3 x AA batteries

Order no. 0563 0110



#### Sensor types

| NTC               |  |  |  |  |  |
|-------------------|--|--|--|--|--|
| Measuring range   | -58 to 302 °F  |  |  |  |  |
| Accuracy ±1 digit | ±0.36 °F (-4 to +176 °F)<br>±0.54 °F (remaining meas. range) |  |  |  |  |
| Resolution        | 0.1 °F   |  |  |  |  |
| Pt100             |  |  |  |  |  |
| Measuring range   | -328 to 1,472 °F   |  |  |  |  |
| Accuracy ±1 digit | according to the probe accuracy                              |  |  |  |  |
| Solution          | according to the probe accuracy                              |  |  |  |  |

## **TopSafe**

TopSafe, protects against impact and dirt, with attachment magnets and stand-up bracket

Order no. 0516 0224



### General technical data

| Operating temperature | -4° to 122 °F              |
|-----------------------|----------------------------|
| Storage temperature   | -4° to 122 °F              |
| Battery type          | 3 x AA                     |
| Battery life          | 100 h                      |
| Dimensions            | 5.3 x 2.4 x 1.1 in         |
| Weight                | 0.41 lbs                   |
| Protection class      | IP40<br>with TopSafe: IP65 |
| Housing material      | ABS + PC / TPE             |



#### The testo Smart App

- Simple and fast: Measurement menus for numerous applications provide optimum support in configuring and carrying out the measurement
- Clear graphical presentation of readings,
   e.g. as a table, for quick interpretation of results
- Create digital measurement reports including photos as PDF/CSV files on site and send via e-mail



Free download for Android and iOS







| Accessories  |             |
|--|-------------|
| TopSafe, protects against impact and dirt, with attachment magnets and stand-up bracket                  | 0516 0224   |
| testo Bluetooth® printer, incl. 1 roll of thermal paper, rech. battery and power supply                  | 0554 0621   |
| Spare thermal paper for printer (6 rolls), measurement data documentation can be read for up to 10 years | 0554 0568   |
| NIST Temperature Certificate pick 3 standard points between -20, +10, +25 and +40°C                      |             |
| NIST Temperature Certificate pick 3 custom points between -20 and/or from +5 to +70°C                    | 400520 1902 |



# Digital Pt100 and NTC temperature probes

| Probe type  |                                | Measuring  | Accuracy  | Resolution        | Order no. |
|---|--------------------------------|--|---|-------------------|-----------|
|   |                                | range  |   |                   |           |
| Digital Pt100 temperature probe   |                                |  |   |                   |           |
| High-precision digital Pt100 penetration probe for measurements in liquids and pastes with an accuracy of up to ±0.09 °F    | 11.6 in.<br>Ø 0.16 in.         | -112 to 572 °F   | ±0.54 °F (-112 to -40.001 °F)<br>±(0.18 °F + 0.05% of m.v.)<br>(-40 to 31.9 °F)<br>±0.09 °F (32 to 212 °F)<br>±(0.09 °F + 0.05% of m.v.)<br>(212.01 to 572 °F)  | 0.001 °F          | 0618 0275 |
| Digital Pt100 penetration probe<br>for measurements in liquids and<br>pastes  | 7.87 in. Ø 0.12 in.            | -148 to 752 °F   | $\pm (0.27 \text{ °F} + 0.2\% \text{ of m.v.})$<br>(-148  to  31.9  °F)<br>$\pm (0.27 \text{ °F} + 0.05\% \text{ of m.v.})$<br>(32  to  212  °F)<br>$\pm (0.27 \text{ °F} + 0.2\% \text{ of m.v.})$<br>(212.01  to  662  °F)<br>$\pm (0.9 \text{ °F} + 0.5\% \text{ of m.v.})$<br>(662.01  to  752  °F) | 0.01 °F           | 0618 0073 |
| Glass-coated digital Pt100<br>laboratory probe for measurements<br>in corrosive media                                       | 7.87 in. Ø 0.23 in.            | -50 to 752 °F  | ±(0.54 °F + 0.3% of m.v.)<br>(-58 to 572 °F)<br>±(0.72 °F + 0.6% of m.v.)<br>(572.01 to 752 °F)   | 0.01 °F           | 0618 7072 |
| Robust, fast-reaction, digital<br>Pt100 air probe   | 7.87 in. Ø 0.16 in.            | -148 to 752 °F   | $\pm (0.27 \text{ °F} + 0.2\% \text{ of m.v.})$<br>(-148  to  31.9  °F)<br>$\pm (0.27 \text{ °F} + 0.05\% \text{ of m.v.})$<br>(32  to  212  °F)<br>$\pm (0.27 \text{ °F} + 0.2\% \text{ of m.v.})$<br>(212.01  to  662  °F)<br>$\pm (0.9 \text{ °F} + 0.5\% \text{ of m.v.})$<br>(662.01  to  752  °F) | 0.01 °F           | 0618 0072 |
| Flexible digital Pt100<br>temperature probe for<br>measurements in locations that are<br>difficult to access and in liquids | Ø 0.16 in.<br>Length 39.37 in. | -148 to 509 °F   | $\pm (0.54~^{\circ}\text{F} + 0.3\% \text{ of m.v.})$   | 0.01 °F           | 0618 0071 |
| Digital Pt100 cable temperature probe Cable length 4.3 ft.  | Length 3.5 in. Ø 0.16 in.      | -12 to 302 °F<br>(probe and<br>cable only)             | ±0.45 °F (+0.3% of reading<br>at -57.9 to 211.9 °F)<br>±0.99 °F (remaining<br>measuring range)  | 0.01 °F           | 0572 2163 |
| Digital NTC temperature / humidit   | y probe                        |  |   |                   |           |
| Digital NTC stub temperature probe  | 5.5 in Ø 0.59 in.              | -22 to 122 °F  | ±0.72 °F  | 0.1 °F            | 0572 2162 |
| Digital stub humidity/<br>temperature probe   | 5.5 in Ø 0.59 in.              | -22 to 122 °F,<br>0 to 100% RH<br>(non-<br>condensing) | ±0.72 °F at 77 °F<br>± 2.0 %RH at 0 to 90 %RH<br>at 77 °F<br>± 0.03 %RH/K (k=1)   | 0.1 °F<br>0.1 %RH | 0572 2164 |
| Digital cable humidity/<br>temperature probe<br>Cable length 4.3 ft   | Length 5.5 in. Ø 0.59 in.      | -22 to 122 °F,<br>0 to 100% RH<br>(non-<br>condensing) | ±0.72 °F at 77 °F<br>± 2.0 %RH at 0 to 90 %RH<br>at 77 °F<br>± 0.03 %RH/K (k=1)   | 0.1 °F<br>0.1 %RH | 0572 2165 |



# Analog NTC temperature probe

| Probe type   | Probe shaft/probe shaft tip dimensions |                     | Measuring<br>range<br>-58 to 248 °F | Accuracy  | Response<br>time | <b>Order no.</b> 0615 5605 |
|--|--|---------------------|-------------------------------------|---|------------------|----------------------------|
| Pipe wrap probe (NTC) for pipe diameters of 0.2 to 2.5 in., fixed cable 3.9 ft.              |  |                     |                                     | ±0.36 °F (-13 to +176 °F)   |                  |                            |
| Temperature probe with Velcro (NTC), fixed cable 4.5 ft.                                     | 11.8 in.                               | 1.8 in.             | -58 to 158 °F                       | ±0.36 °F (-13 to 158 °F)<br>±0.72 °F (-58 to -13.1 °F)  | 60 s             | 0615 4611                  |
| Waterproof NTC immersion/<br>penetration probe, fixed cable 3.9 ft                           | 4.5 in.<br>Ø 0.2 in.                   | 2 in.<br>Ø 0.16 in. | -58 to 257 °F                       | ±0.5% of m.v.<br>(212 to 302 °F)<br>±0.4 °F (-13 to 166.8 °F)<br>±0.7 °F (remaining meas.<br>range) | 10 s             | 0615 1212                  |
| Robust air probe NTC, fixed cable 3.9 ft   | 4.5 in. Ø 0.2 in.                      | 2 in.<br>Ø 0.16 in. | -58 to 257 °F                       | ±0.4 °F (-13° to 176 °F)<br>±0.7 °F (Remaining<br>Range)  | 60 s             | 0615 1712                  |
| Clamp probe for measurements on pipes from 0.2 to 1.3 in. diameter, NTC, fixed cable 4.9 ft. | 00                                     |                     | -40 to 257 °F                       | ±1.8 °F (-4 to 185 °F)  | 60 s             | 0615 5505                  |