

# WiFi data logger system

testo Saveris 2 –  
temperature, humidity and  
CO<sub>2</sub> monitoring re-thought

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Data transfer by wireless LAN

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All measurement data always available, anywhere,  
on any instrument

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Alarms when limit values are violated

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With testo Saveris 2 App for easier configuration,  
push alarms and WiFi range analysis

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Cost-free online data store (Testo Cloud)

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testo Saveris 2 App  
for free download

JETZT BEI  
Google Play

Laden im  
App Store

The testo Saveris 2 WiFi data logger system is the modern solution for monitoring temperature and humidity values as well as CO<sub>2</sub> concentration in storerooms and work rooms. Installing the system is child's play, and can be carried out either via a browser, or with the testo Saveris 2 App. The WiFi data loggers reliably record temperature, humidity and CO<sub>2</sub> concentration at adjustable intervals and transmit the measurement values directly by wireless LAN to the Testo Cloud.

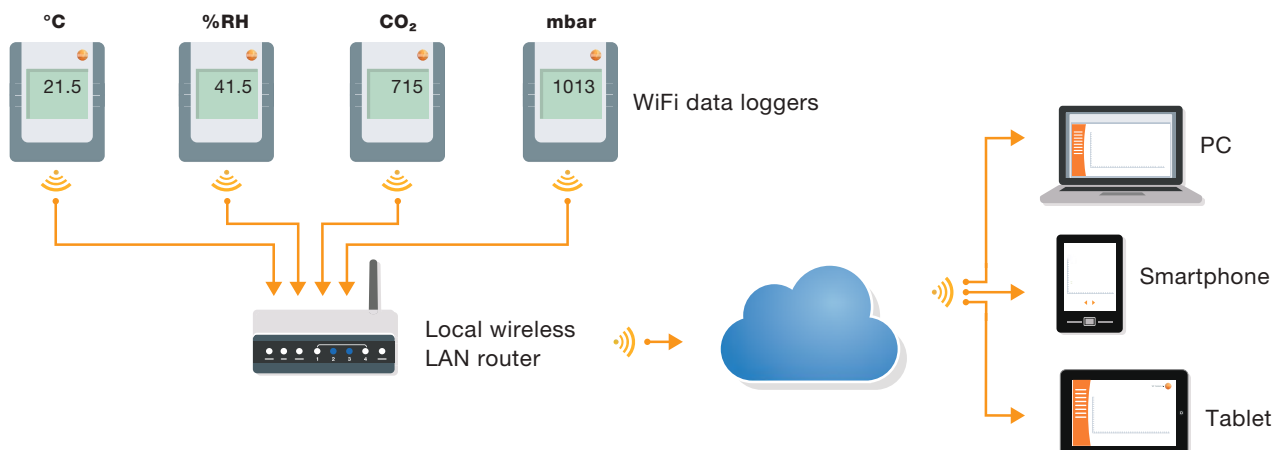
The readings stored can be analyzed at any time, anywhere, using an internet-enabled smartphone, tablet or PC.

Limit value violations are immediately reported by e-mail, optionally by SMS or via the testo Saveris 2 App as a push notification. This allows critical processes to be kept always under control, even if you are not on site.

The long battery life additionally ensures that the testo Saveris 2 system needs to be serviced only rarely.

## Climate monitoring re-thought

The data logger system testo Saveris 2 allows you full and easy control of ambient conditions at all times - no matter where you are.



## testo Saveris 2 Cloud

### Our packages

The Testo Cloud is the core operating element for setting up your testo Saveris 2 system. Here you can configure your WiFi data loggers, set limit value alarms and analyze your measurement data. You must first register at [www.saveris.net](http://www.saveris.net) to have access to the Testo Cloud. Depending on the desired range of functions, you have a choice between the free Basic and more extensive Advanced functionality for use of the Testo Cloud. In both packages, you have access to an API interface, in order to export measurement data to your systems.

|                                                | Basic <b>Free</b>                                                                                                                               | Advanced                                                                                                                                                    |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Measuring cycle</b>                         | 15 min to 24 h                                                                                                                                  | 1 min to 24 h                                                                                                                                               |
| <b>Communication cycle</b>                     | 15 min to 24 h                                                                                                                                  | 1 min to 24 h                                                                                                                                               |
| <b>Data storage</b>                            | Max. 3 months                                                                                                                                   | Max. 2 years                                                                                                                                                |
| <b>Reports</b>                                 | Manual (.pdf/.csv)                                                                                                                              | Manual (.pdf/.csv)<br>Automatic (.pdf/.csv)                                                                                                                 |
| <b>Data analysis</b>                           | For one measurement channel in each case                                                                                                        | For up to 10 measurement channels simultaneously                                                                                                            |
| <b>Number of users per account</b>             | 1                                                                                                                                               | 10                                                                                                                                                          |
| <b>Number of WiFi data loggers per account</b> | Unlimited                                                                                                                                       | Unlimited                                                                                                                                                   |
| <b>Alarm options</b>                           | Upper/lower alarm limits                                                                                                                        | <ul style="list-style-type: none"> <li>Upper/lower alarm limits</li> <li>Alarm delay</li> <li>Time control of alarms</li> </ul>                             |
| <b>System notifications</b>                    | <ul style="list-style-type: none"> <li>Notification of low battery</li> <li>Radio link interrupted</li> <li>Power supply interrupted</li> </ul> | <ul style="list-style-type: none"> <li>Notification of low battery</li> <li>Radio link interrupted</li> <li>Power supply interrupted</li> </ul>             |
| <b>E-mail alarm</b>                            | Yes                                                                                                                                             | Yes                                                                                                                                                         |
| <b>SMS alarm</b>                               | No                                                                                                                                              | <ul style="list-style-type: none"> <li>Including 25 SMS per logger and year</li> <li>Option of purchasing additional SMS packages</li> </ul>                |
|                                                |                                                                                                                                                 | <div>12-month licence<br/>Order no. 0526 0735</div> <div>24-month licence<br/>Order no. 0526 0732</div> <div>36-month licence<br/>Order no. 0526 0733</div> |

## Ordering data WiFi data loggers

### testo Saveris 2-T1

testo Saveris 2-T1; WiFi data logger (wireless LAN) with display and internal NTC temperature sensor, incl. USB cable, wall bracket, batteries and calibration certificate



Order no. 0572 2031

### testo Saveris 2-H1

testo Saveris 2-H1; WiFi data logger (wireless LAN) with display for measuring temperature and relative humidity, internal capacitive sensor incl. USB cable, wall bracket, batteries and calibration certificate



Order no. 0572 2034

### testo Saveris 2-T2

testo Saveris 2-T2; WiFi data logger (wireless LAN) with display for measuring temperature, two connections for external NTC temperature probes or door contacts, incl. USB cable, wall bracket, batteries and calibration certificate



Order no. 0572 2032

### testo Saveris 2-H2

testo Saveris 2-H2; WiFi data logger (wireless LAN) with display for measuring temperature and relative humidity, connection for one external humidity probe, incl. USB cable, wall bracket, batteries



Order no. 0572 2035

### testo Saveris 2-T3

testo Saveris 2-T3; WiFi data logger (wireless LAN) with display for measuring temperature, two connections for external TC temperature probes (Types K, T, J), incl. USB cable, wall bracket, batteries and calibration certificate



Order no. 0572 2033

### testo 160 IAQ

testo 160 IAQ WiFi air quality logger with display and integrated sensors for temperature, humidity, CO<sub>2</sub> and atmospheric pressure



Order no. 0572 2014

### testo Saveris 2 - set for temperature monitoring in refrigerators

testo Saveris 2-T2; WiFi data logger (wireless LAN) with display for measuring the temperature, two connections for external NTC temperature probes or door contacts, incl. two ribbon-cable temperature probes, two temperature simulation flasks for filling with a temperature buffer suitable for each respective area of application, USB cable, wall bracket, batteries and calibration certificate

Order no. 0572 2103



Please note that in order to use the WiFi data logger system testo Saveris 2, a WiFi data logger, registration in the Testo Cloud ([www.saveris.net](http://www.saveris.net)) and a wireless LAN-capable network are absolutely necessary.

|                                                      | testo<br>Saveris 2-<br>T1                                                                                                                                                                                                                                                                                                 | testo<br>Saveris 2-<br>T2   | testo<br>Saveris 2-<br>T3   |                 |                 | testo<br>Saveris 2-<br>H1 | testo<br>Saveris 2-<br>H2                        | testo<br>160<br>IAQ                                                                                                       |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Temperature measurement                              |                                                                                                                                                                                                                                                                                                                           |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| Sensor type                                          | NTC internal                                                                                                                                                                                                                                                                                                              | NTC                         | TC Type K                   | TC Type J       | TC type T       | NTC internal              | NTC                                              |                                                                                                                           |
| Measuring range                                      | -30 to +50 °C                                                                                                                                                                                                                                                                                                             | -50 to +150 °C              | -195 to +1350 °C            | -100 to +750 °C | -200 to +400 °C | -30 to +50 °C             | Measuring range and accuracy correspond to probe | 0 to +50 °C                                                                                                               |
| Accuracy ±1 digit                                    | ±0.5 °C                                                                                                                                                                                                                                                                                                                   | ±0.3 °C                     | ±(0.5 + 0.5 % of m.v.) °C   |                 |                 | ±0.5 °C                   |                                                  | ±0.5 °C                                                                                                                   |
| Resolution                                           | 0.1 °C                                                                                                                                                                                                                                                                                                                    |                             |                             |                 |                 |                           |                                                  | 0.1 °C                                                                                                                    |
| Humidity measurement                                 |                                                                                                                                                                                                                                                                                                                           |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| Measuring range                                      | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 | 0 to 100 %RH              | Measuring range and accuracy correspond to probe | 0 to 100 %RH                                                                                                              |
| Accuracy                                             | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 | ±2 %RH                    |                                                  | ±2 %RH at +25 °C and 20 to 80 %RH<br>±3 %RH at +25 °C and <20 %RH and >80 %RH<br>±1% RH hysteresis<br>±1% RH / year drift |
| Resolution                                           | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 | 0.1 %RH                   |                                                  |                                                                                                                           |
| CO <sub>2</sub> measurement                          |                                                                                                                                                                                                                                                                                                                           |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| Measuring range                                      | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 |                           |                                                  | 0 to 5 000 ppm                                                                                                            |
| Accuracy                                             | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 |                           |                                                  | ±(50 ppm + 3 % of m.v.) at +25 °C<br>Without external power supply:<br>±(100 ppm + 3 % of m.v.) at +25 °C                 |
| Resolution                                           | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 |                           |                                                  | 1 ppm                                                                                                                     |
| Pressure measurement                                 |                                                                                                                                                                                                                                                                                                                           |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| Measuring range                                      | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 |                           |                                                  | 600 to 1100 mbar                                                                                                          |
| Accuracy                                             | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 |                           |                                                  | ±3 mbar at +22 °C                                                                                                         |
| Resolution                                           | –                                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 |                           |                                                  | 1 mbar                                                                                                                    |
| Temperature/humidity measurement via external probes |                                                                                                                                                                                                                                                                                                                           |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| External probe connection                            | –                                                                                                                                                                                                                                                                                                                         | External temperature probes | External temperature probes |                 |                 | –                         | External humidity/temperature probe              | –                                                                                                                         |
| General technical data                               |                                                                                                                                                                                                                                                                                                                           |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| Operating temperature                                | -30 to +50 °C                                                                                                                                                                                                                                                                                                             |                             |                             |                 |                 |                           |                                                  | 0 to +50 °C                                                                                                               |
| Storage temperature (without batteries)              | -40 to +70 °C                                                                                                                                                                                                                                                                                                             |                             |                             |                 |                 |                           |                                                  | -20 to +50 °C                                                                                                             |
| Protection class                                     | IP65                                                                                                                                                                                                                                                                                                                      | IP65                        | IP54                        |                 |                 | IP30                      | IP54                                             | IP20                                                                                                                      |
| Measuring cycle                                      | Depends on the Cloud licence / Basic: 15 min to 24 h / Advanced: 1 min to 24 h                                                                                                                                                                                                                                            |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| Communication cycle                                  | Depends on the Cloud licence / Basic: 15 min to 24 h / Advanced: 1 min to 24 h                                                                                                                                                                                                                                            |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| Memory                                               | 10000 readings/channel                                                                                                                                                                                                                                                                                                    |                             |                             |                 |                 |                           |                                                  | 32,000 readings (sum of all channels)                                                                                     |
| Standards / permits                                  | EN 12830                                                                                                                                                                                                                                                                                                                  | EN 12830                    | –                           |                 |                 |                           |                                                  |                                                                                                                           |
| Battery life                                         | 12 months (typical value, depending on the wireless LAN infrastructure) at +25 °C, 15 mins measurement rate and standard communication rate at -30 °C, 15 mins measurement rate and standard communication rate with Energizer batteries 0515 0572                                                                        |                             |                             |                 |                 |                           |                                                  | 12 months                                                                                                                 |
| Voltage supply                                       | 4 x AA AlMn Mignon batteries; mains unit optional; for temperatures under -10 °C please use Energizer batteries 0515 0572                                                                                                                                                                                                 |                             |                             |                 |                 |                           |                                                  | 4 x AA alkali manganese batteries 1.5 V, alternatively mains unit via USB connection                                      |
| Dimensions                                           | 95 x 75 x 30.5 mm                                                                                                                                                                                                                                                                                                         |                             |                             |                 |                 | 115 x 82 x 31 mm          | 95 x 75 x 30.5 mm                                | 117 x 82 x 32 mm                                                                                                          |
| Weight (including batteries)                         | 240 g                                                                                                                                                                                                                                                                                                                     |                             |                             |                 |                 | 250 g                     | 240 g                                            | 269 g                                                                                                                     |
| Door contact                                         | No                                                                                                                                                                                                                                                                                                                        | Optional                    | No                          |                 |                 |                           |                                                  |                                                                                                                           |
| Communication                                        |                                                                                                                                                                                                                                                                                                                           |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |
| WiFi (wireless LAN)                                  | Signal transmission: wireless; frequency band: 2.4 GHz; supported wireless LAN standards: IEEE 802.11 b/g/n and IEEE 802.1X<br>Possible encryption methods: without encryption, WEP, WPA, WPA2, WPA2 Enterprise<br>The data loggers communicate via the standard protocol MQTT and are SNTP time synchronization-capable. |                             |                             |                 |                 |                           |                                                  |                                                                                                                           |

# testo Saveris 2 App

With the App for iOS and Android, you now operate the wireless LAN data logger system testo Saveris 2 even more easily and flexibly via your smartphone.



## More efficient commissioning\*:

- Easy recognition and selection of the WiFi network
- Faster parallel commissioning of several loggers



## Easy network analysis\*:

- Test the strength and range of your WiFi network
- Create and send status reports



## Reliable alarm functions:

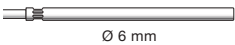
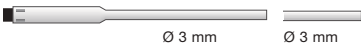
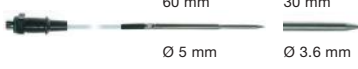
- Push notifications of limit value violations
- Combinable with e-mail or SMS alarms

\*These functions are available only in the Android version of the testo Saveris 2 App.

## Ordering data for accessories

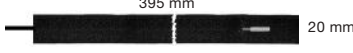
| Accessories                                                                                                                       | Order no. |  |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------|--|
| Door contact for testo Saveris 2-T2 WiFi data logger                                                                              | 0572 2152 |  |
| Mains unit for testo Saveris 2 WiFi data loggers                                                                                  | 0572 2020 |  |
| Battery for WiFi probes (4 x AA alkali manganese Mignon batteries))                                                               | 0515 0414 |  |
| Batteries for operating WiFi data loggers testo Saveris 2 below -10 °C (4 x Energizer L91 Photo-Lithium)                          | 0515 0572 |  |
| Magnetic adapter for testo Saveris 2 wall bracket, for attachment to magnetic surfaces                                            | 0554 2001 |  |
| Wall bracket for testo 160 IAQ                                                                                                    | 0554 2015 |  |
| Deco-cover for testo 160 IAQ                                                                                                      | 0554 2012 |  |
| ISO temperature calibration certificate; temperature probe; calibration points -18 °C, 0 °C, +40 °C; per channel/instrument       | 0520 0153 |  |
| DAkKS temperature calibration certificate; temperature probe; calibration points -18 °C, 0 °C, +40 °C; per channel/instrument     | 0520 0262 |  |
| ISO humidity calibration certificate; calibration points 11.3 %RH and 75.3 %RH at +25 °C/ +77 °F; per channel/instrument          | 0520 0076 |  |
| DAkKS humidity calibration certificate; humidity probe; calibration points 11.3 %RH and 75.3 %RH at +25°C; per channel/instrument | 0520 0246 |  |
| ISO calibration certificate CO <sub>2</sub> , calibration points 0; 1000; 5000 ppm                                                | 0520 0033 |  |

# Temperature probes for testo Saveris 2-T2

| Probe type                                                                                      | Dimensions probe shaft/probe shaft tip                                                                                  | Measuring range | Accuracy                                                                                      | t <sub>99</sub> | Order no. |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------|-----------------|-----------|
| Stump probe, IP 54                                                                              |  35 mm<br>Ø 3 mm                       | -20 to +70 °C   | ±0.2 °C (-20 to +40 °C)<br>±0.4 °C (+40.1 to +70 °C)                                          | 15 s            | 0628 7510 |
| Stationary probe with aluminium sleeve, IP 65, fixed cable 2.4 m                                |  40 mm<br>Ø 6 mm                       | -30 to +90 °C   | ±0.2 °C (0 to +70 °C)<br>±0.5 °C (remaining meas. range)                                      | 190 s           | 0628 7503 |
| Accurate immersion/penetration probe, cable length 6 m, IP 67, fixed cable                      |  40 mm<br>Ø 3 mm    Ø 3 mm             | -35 to +80 °C   | ±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining meas. range)                                  | 5 s             | 0610 1725 |
| Surface probe fixed cable, 2 m                                                                  |  40 mm<br>8 x 8 mm                     | -50 to +80 °C   | ±0.2 °C (0 to +70 °C)                                                                         | 150 s           | 0628 7516 |
| Penetration probe NTC with ribbon cable, cable length 2 m, IP 54, fixed cable                   |  60 mm    30 mm<br>Ø 5 mm    Ø 3.6 mm | -40 to +125 °C  | ±0.5 % of m.v. +100 to +125 °C)<br>±0.2 °C (-25 to +80 °C)<br>±0.4 °C (remaining meas. range) | 8 s             | 0572 1001 |
| Pipe wrap probe with Velcro tape for pipe diameters up to max. 75 mm, Tmax. +75 °C, fixed cable |  300 mm                              | -50 to +70 °C   | ±0.2 °C (-25 to +70 °C)<br>±0.4 °C (-50 to -25.1 °C)                                          | 60 s            | 0613 4611 |
| External temperature probe 12 mm, plug-in, without cable                                        |  105 mm<br>Ø 12 mm<br>Ø 20 mm        | -30 to +50 °C   | ±0.2 °C (-30 to +50 °C)                                                                       |                 | 0572 2153 |

**More probes at [www.testo.com](http://www.testo.com)!**

## Temperature probes for testo Saveris 2-T3

| Probe type                                                                                                                                                                                                                                                                                   | Dimensions probe shaft/probe shaft tip                                                                                                                     | Measuring range  | Accuracy | t <sub>99</sub> | Order no. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------|-----------------|-----------|
| Stationary probe with stainless steel sheath, TC Type K                                                                                                                                                                                                                                      | <br>40 mm<br>Ø 6 mm<br>Connection: Fixed cable 1.9 m                      | -50 to +205 °C   | Class 2* | 20 s            | 0628 7533 |
| Penetration probe TC with ribbon cable, Type K, cable length 2 m, IP 54                                                                                                                                                                                                                      | <br>60 mm<br>Ø 5 mm<br>30 mm<br>Ø 3.6 mm<br>Connection: Fixed cable 1.9 m | -40 to +220 °C   | Class 1  | 7 s             | 0572 9001 |
| Magnetic probe, adhesive power approx. 10 N, with magnets, for higher temperatures, for measurements on metal surfaces, TC Type K                                                                                                                                                            | <br>75 mm<br>Ø 21 mm<br>Connection: Fixed cable 1.6 m                     | -50 to +400 °C   | Class 2* |                 | 0602 4892 |
| Pipe clamp probe for pipe diameters 5 to 65 mm, with replaceable measuring head, measuring range short-term up to +280 °C, TC Type K                                                                                                                                                         | <br>395 mm<br>20 mm<br>Connection: Fixed cable 1.2 m                      | -60 to +130 °C   | Class 2* | 5 s             | 0602 4592 |
| Pipe wrap probe with Velcro tape, for measuring temperatures on pipes with diameters up to max. 120 mm, Tmax +120°C, TC Type K                                                                                                                                                               | <br>395 mm<br>20 mm<br>Connection: Fixed cable 1.5 m                     | -50 to +120 °C   | Class 1* | 90 s            | 0628 0020 |
| Flexible, low-mass immersion measurement tip, ideal for measurements in small volumes such as Petri dishes or for surface measurements (e.g. fixed with adhesive tape), TC Type K, 2 m, FEP-insulated thermal wire, temperature-proof to 200 °C, oval cable with dimensions: 2.2 mm x 1.4 mm | <br>Ø 0.25 mm<br>500 mm                                                 | -200 to +1000 °C | Class 1* | 1 s             | 0602 0493 |

\* Acc. to norm 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).

## Humidity/temperature probes for testo Saveris 2-H2

| Probe type                                                        | Dimensions Probe shaft/probe shaft tip                                                                              | Measuring range               | Accuracy                                                               | Order no. |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------|-----------|
| Humidity/temperature probe 12 mm, fixed cable, cable length 1.3 m | <br>105 mm<br>Ø 12 mm            | -30 to +70 °C<br>0 to 100 %RH | ± 0.3 °C<br>±2 %RH at +25 °C (2 to 98 %RH)<br>± 0.03%RH/K<br>± 1 digit | 0572 2155 |
| External humidity/temperature probe 12 mm, plug-in, without cable | <br>105 mm<br>Ø 12 mm<br>Ø 20 mm | -30 to +50 °C<br>0 to 100 %RH | ± 0.3 °C<br>±2 %RH                                                     | 0572 2154 |

**More probes at [www.testo.com!](http://www.testo.com!)**

