

# Air velocity & IAQ measuring instruments

- testo 440 air velocity & IAQ measuring instrument
- testo 440 dP air velocity & IAQ measuring instrument incl. differential pressure

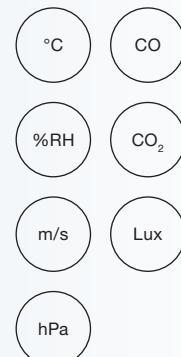
Intuitive: clearly structured measurement menus for the most important applications stored on the instrument

Wireless: Bluetooth probes for greater measuring convenience and a reduced tangle of cables in the case

Space-saving: a universal handle for all probes

Clear overview: parallel display of 3 measuring values; configuration and results at a glance

Reliable: internal memory for up to 7500 measurement protocols, USB interface for data export and optional printout of measuring values



Compatible with a wide selection of Bluetooth™ and wired probes.

The testo 440 combines the benefits of a compact handheld device with intuitive measurement menus and a comprehensive selection of air velocity & IAQ probes. This means you have all measuring tasks on air conditioning and ventilation systems reliably under control.

You can connect the testo 440 air velocity & IAQ measuring instrument either to a large selection of digital probes, the Testo Smart Probes or numerous Testo temperature probes. Clearly structured menus for measuring volume flow in ducts/at outlets, K-factor, degree of turbulence, cooling/heating load, mould indication and logging mode

are stored on the instrument. These menus enable you to accomplish the relevant measuring task more quickly, more efficiently and more reliably. Reports can be exported as Excel files via the USB interface or printed out on site.

The testo 440 air velocity & IAQ measuring instrument is available in two versions. The testo 440 dP model version also has an integrated differential pressure sensor. This makes measurements at filters as well as Pitot tube and K-factor measurements possible.

## Ordering data for testo 440

### testo 440

Air velocity & IAQ measuring instrument, 3 x AA batteries, USB cable and calibration protocol.

Order no. 0560 4401



### testo 440 dP

Air velocity & IAQ measuring instrument with integrated differential pressure sensor, connection hose, 3 x AA batteries, USB cable and calibration protocol.

Order no. 0560 4402



## Technical data testo 440

|                                    | testo 440   | testo 440 dP   |
|------------------------------------|---|--|
| <b>Temperature (NTC)</b>           |   |  |
| Measuring range                    | -40 to +150 °C  |  |
| Accuracy ( $\pm 1$ digit)          | $\pm 0.4$ °C (-40 to -25.1 °C)<br>$\pm 0.3$ °C (-25 to +74.9 °C)<br>$\pm 0.4$ °C (+75 to +99.9 °C)<br>$\pm 0.5\%$ of m.v. (remaining meas. range) |  |
| Resolution                         | 0.1 °C  |  |
| <b>Temperature (TC)</b>            |   |  |
| Measuring range                    | -200 to +1370 °C  |  |
| Accuracy ( $\pm 1$ digit)          | $\pm (0.3$ °C + 0.3% of m.v.)   |  |
| Resolution                         | 0.1 °C  |  |
| <b>Temperature (Pt100)</b>         |   |  |
| Measuring range                    | See probe data  |  |
| Accuracy ( $\pm 1$ digit)          |   |  |
| Resolution                         |   |  |
| <b>Differential pressure</b>       |   |  |
| Measuring range                    | -   | -150 to +150 hPa   |
| Accuracy ( $\pm 1$ digit)          |   | $\pm 0.05$ hPa<br>(0 to +1.00 hPa)<br>$\pm 0.2$ hPa + 1.5% of m.v.<br>(+1.01 ... +150 hPa) |
| Resolution                         |   | 0.01 hPa   |
| <b>Probe connections</b>           |   |  |
| TC type K                          | 1x  |  |
| NTC TUC / digital probe with cable | 1x  |  |
| Bluetooth probe                    | 1x digital Bluetooth probe<br>or testo Smart Probe  |  |
| Differential pressure              | -   | +  |
| <b>Technical data</b>              |   |  |
| Operating temperature              | -20 to +50 °C   |  |
| Storage temperature                | -20 to +50 °C   |  |
| Battery type                       | 3 x AA batteries  |  |
| Battery life                       | 12 h (typically vane measurement)   |  |
| Weight                             | 250 g   |  |
| Dimensions                         | 154 x 65 x 32 mm  |  |



The wired digital probes and the NTC probes of the testo 440 all have the practical TUC connection (**T**estو **U**niversal **C**onector).

## Ordering data for kits

### Kits for measurement in ducts, at outlets and at filters

#### **testo 440 delta P Air Flow ComboKit 1 with BT**

- testo 440 dP air velocity & IAQ measuring instrument incl. differential pressure with internal memory and data export function
- Universal probe handle with Bluetooth
- Hot wire probe head incl. temperature and humidity sensor
- 100 mm vane probe head incl. temperature sensor
- Telescope (1 m) and 90° angle to fit both probes
- Combi case for testo 440 dP and multiple probes



Order no. 0563 4409

#### **testo 440 delta P Air Flow ComboKit 2 with BT**

- testo 440 dP air velocity & IAQ measuring instrument incl. differential pressure with internal memory and data export function
- Universal probe handle with Bluetooth
- 16 mm vane probe head incl. temperature sensor
- 100 mm vane probe head incl. temperature sensor
- Humidity probe head incl. temperature sensor
- Telescope (1 m) and 90° angle to fit both probes
- Combi case for testo 440 dP and multiple probes



Order no. 0563 4410

### Kits for measurements in ducts and at outlets

#### **testo 440 Air Flow ComboKit 1 with BT**

- testo 440 air velocity & IAQ measuring instrument with internal memory and data export function
- 100 mm vane probe with Bluetooth, incl. temperature sensor
- Hot wire probe with telescope (0.85 m) incl. temperature sensor, fixed cable (1.8 m)
- Measurement menu, e.g. for determining the volume flow
- Combi case for testo 440 and multiple probes



Order no. 0563 4406

#### **testo 440 Air Flow ComboKit 2 with BT**

- testo 440 air velocity & IAQ measuring instrument with internal memory and data export function
- 100 mm vane probe with Bluetooth, incl. temperature sensor
- 16 mm vane probe with telescope (0.85 m), fixed cable (1.8 m)
- Measurement menu, e.g. for determining the volume flow
- Combi case for testo 440 and multiple probes



Order no. 0563 4407

# Ordering data for kits

## Additional kits

### testo 440 Hot Wire Kit

- testo 440 air velocity & IAQ measuring instrument with internal memory and data export function
  - Hot wire probe incl. temperature sensor, fixed cable (1.8 m) with telescope (0.85 m)
  - Measurement menu, e.g. for determining the volume flow and timed and multi-point mean calculation
  - Basic case for testo 440 and 1 probe
- Order no. 0563 4400



### testo 440 16 mm Vane Kit

- testo 440 air velocity & IAQ measuring instrument with internal memory and data export function
  - Vane probe, fixed cable (1.8 m) with telescope (0.85 m)
  - Measurement menu, e.g. for determining the volume flow and timed and multi-point mean calculation
  - Basic case for testo 440 and 1 probe
- Order no. 0563 4401



### testo 440 100 mm Vane Kit with BT

- testo 440 air velocity & IAQ measuring instrument with internal memory and data export function
- 100 mm vane probe with Bluetooth, incl. temperature sensor
- Measurement menu, e.g. for determining the volume flow
- Basic case for testo 440 and 1 probe

Order no. 0563 4403



### testo 440 Indoor Comfort ComboKit with BT

- testo 440 air velocity & IAQ measuring instrument with internal memory and data export function
- Turbulence probe (400 mm)
- CO<sub>2</sub> probe with Bluetooth, incl. temperature and humidity sensor
- Combi case for testo 440 and multiple probes

Order no. 0563 4408



### testo 440 CO<sub>2</sub> Kit with BT

- testo 440 air velocity & IAQ measuring instrument
- CO<sub>2</sub> probe with Bluetooth, incl. temperature and humidity sensor
- Basic case for testo 440 and 1 probe

Order no. 0563 4405



### testo 440 Humidity Kit with BT

- testo 440 air velocity & IAQ measuring instrument
- Humidity and temperature probe with Bluetooth
- Basic case for testo 440 and 1 probe

Order no. 0563 4404



### testo 440 Lux Kit

- testo 440 air velocity & IAQ measuring instrument
- Lux probe
- Basic case for testo 440 and 1 probe

Order no. 0563 4402



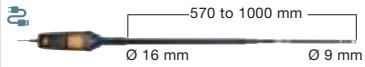
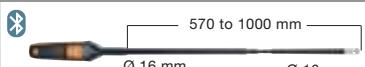
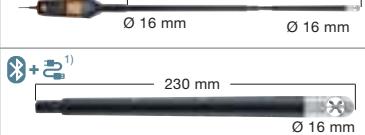
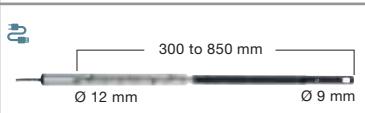
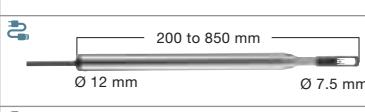
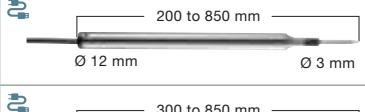
### testo 440 Laboratory kit

- testo 440 air velocity & IAQ measuring instrument
- Glass-coated digital Pt100 laboratory probe
- Basic case for testo 440 and 1 probe

Order no. 0563 4412



# Digital air velocity probes

| Probe type  |   | Measuring range  | Accuracy  | Resolution                               | Order no. |
|---|---|--|---|--|-----------|
| <b>Digital flow probes</b>  |   |  |   |  |           |
| Hot wire probe with Bluetooth®, including temperature and humidity sensor   |  570 to 1000 mm<br>Ø 16 mm Ø 9 mm    |  | ±(0.03 m/s + 4% of m.v.)<br>(0 to 20 m/s)<br>±(0.5 m/s + 5% of m.v.)<br>(20.01 to 30 m/s)<br>±0.5 °C (0 to +70 °C)<br>±0.8 °C (-20 to 0 °C)<br>±3.0 %RH (10 to 35 %RH) <sup>3)</sup><br>±2.0 %RH (35 to 65 %RH) <sup>3)</sup><br>±3.0 %RH (65 to 90 %RH) <sup>3)</sup><br>±5 %RH<br>(remaining meas. range) <sup>3)</sup><br>±3 hPa | 0.01 m/s<br>0.1 °C<br>0.1 %RH<br>0.1 hPa | 0635 1571 |
| Hot wire probe, fixed cable, including temperature and humidity sensor  |  570 to 1000 mm<br>Ø 16 mm Ø 9 mm    | 0 to 50 m/s<br>-20 to +70 °C<br>5 to 95 %RH<br>700 to 1100 hPa |   | 0.01 m/s<br>0.1 °C<br>0.1 %RH<br>0.1 hPa | 0635 1572 |
| Hot wire probe head, including temperature and humidity sensor  |  230 mm<br>Ø 9 mm                    |  |   |  | 0635 1570 |
| Vane probe (Ø 16 mm) with Bluetooth®, including temperature sensor  |  570 to 1000 mm<br>Ø 16 mm Ø 16 mm   |  |   |  | 0635 9571 |
| Vane probe (Ø 16 mm), fixed cable, including temperature sensor   |  570 to 1000 mm<br>Ø 16 mm Ø 16 mm   | 0.6 to 50 m/s<br>-10 to +70 °C                                 | ±(0.2 m/s + 1% of m.v.)<br>(0.6 to 40 m/s)<br>±(0.2 m/s + 2% of m.v.)<br>(40.1 to 50 m/s)<br>±1.8 °C  | 0.1 m/s<br>0.1 °C                        | 0635 9572 |
| Vane probe head (Ø 16 mm), including temperature sensor   |  230 mm<br>Ø 16 mm                   |  |   |  | 0635 9570 |
| Hot wire probe, fixed cable, including temperature sensor   |  300 to 850 mm<br>Ø 12 mm Ø 9 mm    | 0 to 30 m/s<br>-20 to +70 °C<br>700 to 1100 hPa                | ±(0.03 m/s + 4% of m.v.)<br>(0 to 20 m/s)<br>±(0.5 m/s + 5% of m.v.)<br>(20.01 to 30 m/s)<br>±0.5 °C<br>±3 hPa  | 0.01 m/s<br>0.1 °C<br>0.1 hPa            | 0635 1032 |
| Hot wire probe (Ø 7.5 mm), fixed cable, including temperature sensor  |  200 to 850 mm<br>Ø 12 mm Ø 7.5 mm | 0 to 20 m/s<br>-20 to +70 °C<br>700 to 1100 hPa                | ±(0.03 m/s + 5% of m.v.)<br>(0 to 20 m/s)<br>±0.5 °C<br>±3 hPa  | 0.01 m/s<br>0.1 °C<br>0.1 hPa            | 0635 1026 |
| Hot ball probe (Ø 3 mm), fixed cable, including temperature sensor  |  200 to 850 mm<br>Ø 12 mm Ø 3 mm   | 0 to 10 m/s<br>-20 to +70 °C<br>700 to 1100 hPa                | ±(0.03 m/s + 5% of m.v.)<br>(0 to 10 m/s)<br>±0.5 °C<br>±3 hPa  | 0.01 m/s<br>0.1 °C<br>0.1 hPa            | 0635 1051 |
| Vane probe (Ø 16 mm), fixed cable   |  300 to 850 mm<br>Ø 12 mm Ø 16 mm  | 0.6 to 50 m/s  | ±(0.2 m/s + 1% of m.v.)<br>(0.6 to 40 m/s)<br>±(0.2 m/s + 2% of m.v.)<br>(40.1 to 50 m/s)   | 0.1 m/s                                  | 0635 9532 |
| Fume cupboard probe, fixed cable<br>(Measurement of flow velocity and volume flow at laboratory extractors based on DIN EN 14175-3/-4.) |  150 mm<br>Ø 10 mm                 | 0 to 5 m/s<br>0 to +50 °C<br>700 to 1100 hPa                   | ±(0.02 m/s + 5% of m.v.)<br>(0 to 5 m/s)<br>±0.5 °C<br>±3 hPa   | 0.01 m/s<br>0.1 °C<br>0.1 hPa            | 0635 1052 |
| High-precision vane probe (Ø 100 mm) with Bluetooth®, including temperature sensor  |  Ø 100 mm                          |  |   |  | 0635 9371 |
| High-precision vane probe (Ø 100 mm), fixed cable, including temperature sensor   |  Ø 100 mm                          | 0.1 to 15 m/s<br>-20 to +70 °C                                 | ±(0.1 m/s + 1.5% of m.v.)<br>(0.1 to 15 m/s)<br>±0.5 °C   | 0.01 m/s<br>0.1 °C                       | 0635 9372 |
| High-precision vane probe head (Ø 100 mm), including temperature sensor   |  Ø 100 mm                          |  |   |  | 0635 9370 |
| Vane probe (Ø 100 mm) with Bluetooth®, including temperature sensor   |  Ø 100 mm                          |  |   |  | 0635 9431 |
| Vane probe (Ø 100 mm), fixed cable, including temperature sensor  |  Ø 100 mm                          | 0.3 to 35 m/s<br>-20 to +70 °C                                 | ±(0.1 m/s + 1.5% of m.v.)<br>(0.3 to 20 m/s)<br>±(0.2 m/s + 1.5% of m.v.)<br>(20.01 to 35 m/s)<br>±0.5 °C   | 0.01 m/s<br>0.1 °C                       | 0635 9432 |
| Vane probe head (Ø 100 mm), including temperature sensor  |  Ø 100 mm                          |  |   |  | 0635 9430 |

<sup>1)</sup> For use with cable handle (order no. 0554 2222) or Bluetooth handle (order no. 0554 1111) in conjunction with adapter (order no. 0554 2160).<sup>3)</sup> Please see the additional accuracy information for humidity in the instruction manual.

# Other digital probes and probe accessories

| Probe type   |  | Measuring range   | Accuracy  | Resolution   | Order no. |
|--|--|---|---|--|-----------|
| <b>Digital humidity probes</b>   |  |   |   |  |           |
| Humidity/temperature probe with Bluetooth®                                       |  290 mm Ø 12 mm |   |   |  | 0636 9731 |
| Humidity/temperature probe, fixed cable  |  290 mm Ø 12 mm | 0 to 100 %RH<br>-20 to +70 °C   | ±2 %RH (5 to 90 %RH) <sup>3)</sup><br>±0.5 °C   | 0.1 %RH<br>0.1 °C                                    | 0636 9732 |
| Humidity/temperature probe head  |  140 mm Ø 12 mm |   |   |  | 0636 9730 |
| High-precision humidity/temperature probe with Bluetooth®                        |  290 mm Ø 12 mm |   |   |  | 0636 9771 |
| High-precision humidity/temperature probe, fixed cable                           |  290 mm Ø 12 mm | 0 to 100 %RH<br>-20 to +70 °C   | ±(0.6 %RH + 0.7% of m.v.)<br>(0 to 90 %RH) <sup>3)</sup><br>±(1.0 %RH + 0.7% of m.v.)<br>(90 to 100 %RH) <sup>3)</sup><br>±0.3 °C<br>(15 to 30 °C)<br>±0.5 °C<br>(remaining meas. range)              | 0.01 %RH<br>0.01 °C                                  | 0636 9772 |
| High-precision humidity/temperature probe head                                   |  140 mm Ø 12 mm |   |   |  | 0636 9770 |
| Robust humidity/temperature probe for temperatures up to +180 °C, fixed cable    |  270 mm Ø 12 mm | 0 to 100 %RH<br>-20 to +180 °C  | ±3 %RH (0 to 2 %RH) <sup>3)</sup><br>±2 %RH (2.1 to 98 %RH) <sup>3)</sup><br>±3 %RH (98.1 to 100 %RH) <sup>3)</sup><br>±0.5 °C (-20 to 0 °C)<br>±0.4 °C (0.1 to +50 °C)<br>±0.5 °C (+50.1 to +180 °C) | 0.1 %RH<br>0.1 °C                                    | 0636 9775 |
| <b>Digital comfort probes</b>  |  |   |   |  |           |
| Turbulence probe, fixed cable  |  190 mm       | 0 to +5 m/s<br>0 to +50 °C<br>700 to 1100 hPa                                       | ±(0.03 m/s + 4% of m.v.)<br>(0 to 5 m/s)<br>±0.5 °C<br>±3 hPa   | 0.01 m/s<br>0.1 °C<br>0.1 hPa                        | 0628 0152 |
| Lux probe, fixed cable   |  110 mm 55 mm | 0 to 100,000 lux  | DIN 13032-1 Appendix B<br>F1 = 6 % = V(Lambda) adjustment<br>F2 = 5 % = cos-true evaluation<br>Class C according to DIN 5032-7  | 0.1 lux<br>(< 10,000 lux)<br>1 lux<br>(≥ 10,000 lux) | 0635 0551 |
| CO <sub>2</sub> probe with Bluetooth®, including temperature and humidity sensor |  280 mm 30 mm |   | ±(50 ppm + 3% of m.v.)<br>(0 to 5,000 ppm)<br>±(100 ppm + 5% of m.v.)<br>(5,001 to 10,000 ppm)  |  | 0632 1551 |
| CO <sub>2</sub> probe, fixed cable, including temperature and humidity sensor    |  280 mm 30 mm | 0 to 10,000 ppm<br>CO <sub>2</sub><br>5 to 95 %RH<br>0 to +50 °C<br>700 to 1100 hPa | ±3 %RH (10 to 35 %RH) <sup>3)</sup><br>±2 %RH (35 to 65 %RH) <sup>3)</sup><br>±3 %RH (65 to 90 %RH) <sup>3)</sup><br>±5 %RH<br>(remaining meas. range) <sup>3)</sup>                                  | 1 ppm<br>0.1 %RH<br>0.1 °C<br>0.1 hPa                | 0632 1552 |
| CO <sub>2</sub> probe head, including temperature and humidity sensor            |  130 mm 30 mm |   | ±0.5 °C<br>±3 hPa   |  | 0632 1550 |
| CO probe with Bluetooth®   |  200 mm 30 mm |   |   |  | 0632 1271 |
| CO probe, fixed cable  |  200 mm 30 mm | 0 to 100 ppm  | ±3 ppm (0 to 30 ppm)<br>±5 ppm (30.1 to 100 ppm)  | 0.1 ppm  | 0632 1272 |
| CO probe head  |  30 mm 30 mm  | 100.1 to 500 ppm  | ±10 % of m.v.<br>(100.1 ... 500 ppm)  |  | 0632 1270 |
| <b>Probe handles and adapters</b>  |  |   |   |  |           |
| Bluetooth® handle for connecting testo 400/testo 440 probe heads                 |               |   |   |  | 0554 1111 |
| Cable handle for connecting testo 400/testo 440 probe heads                      |               |   |   |  | 0554 2222 |
| Handle adapter for connecting testo 400/testo 440 flow probes                    |  |   |   |  | 0554 2160 |

<sup>2)</sup> For use with cable handle (order no. 0554 2222) or Bluetooth handle (order no. 0554 1111).

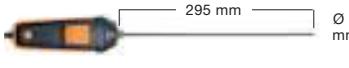
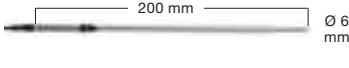
<sup>3)</sup> Please see the additional accuracy information for humidity in the instruction manual.

# Testo Smart Probes

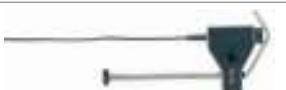
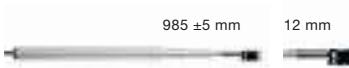
| Testo Smart Probes  | Measuring range   | Accuracy<br>±1 digit   | Resolution  | Order no.                      |
|---|---|--|---|--------------------------------|
| <b>Temperature</b>  |   |  |   |                                |
| <b>testo 115i</b><br>Clamp thermometer with smartphone operation, for measurements on pipelines with diameters of 6 to max. 35 mm, including batteries and calibration protocol                                       |       | -40 to +150 °C   | ±1.3 °C (-20 to +85 °C)   | 0.1 °C 0560 2115 02            |
| <b>testo 915i – with flexible probe</b><br>Wireless Smart Probe testo 915i with flexible probe (TC Type K), incl. batteries and calibration protocol  |       | -50 to +400 °C   | ±1.0 °C (-30 to +80 °C)<br>±(0.7 °C + 1 % of m.v.)<br>(-50 to -30 °C)<br>±(0.2 °C + 1 % of m.v.)<br>(+80 to +400 °C)  | 0.1 °C 0563 4915               |
| <b>testo 915i – with air probe</b><br>Wireless Smart Probe testo 915i with air probe (TC Type K), incl. batteries and calibration protocol  |       | -50 to +400 °C   | ±1.0 °C (-50 to +100 °C)<br>±1 % of m.v.<br>(remaining meas. range)   | 0.1 °C 0563 3915               |
| <b>testo 915i – with immersion/penetration probe</b><br>Wireless Smart Probe testo 915i with immersion/penetration probe (TC Type K), incl. batteries and calibration protocol  |       | -50 to +400 °C   | ±1.0 °C (-50 to +100 °C)<br>±1 % of m.v.<br>(remaining meas. range)   | 0.1 °C 0563 1915               |
| <b>testo 915i – with surface probe</b><br>Wireless Smart Probe testo 915i with surface probe (TC Type K), incl. batteries and calibration protocol  |      | -50 to +350 °C   | ±(1.0 °C + 1 % of m.v.)   | 0.1 °C 0563 2915               |
| <b>testo 915i kit</b><br>Universal temperature kit consisting of Smart Probe testo 915i with plug-in immersion/penetration probe, air probe and surface probe in Smart Case, incl. batteries and calibration protocol |   | see above, testo 915i<br>- Air probe<br>- Immersion/penetration probe<br>- Surface probe | 0.1 °C  | 0563 5915                      |
| <b>testo 805i</b><br>Infrared thermometer with smartphone operation, including batteries and calibration protocol   |   | -30 to +250 °C   | ±1.5 °C or ±1.5% of m.v.<br>(0 to +250 °C)<br>±2.0 °C (-20 to -0.1 °C)<br>±2.5 °C (-30 to -20.1 °C)   | 0.1 °C 0560 1805               |
| <b>Humidity</b>   |   |  |   |                                |
| <b>testo 605i</b><br>Thermohygrometer with smartphone operation, including batteries and calibration protocol   |   | 0 to 100 %RH<br>-20 to +60 °C  | ±3.0 %RH (10 to 35 %RH)<br>±2.0 %RH (35 to 65 %RH)<br>±3.0 %RH (65 to 90 %RH)<br>±5 %RH (< 10 %RH<br>or > 90 %RH)<br>±0.8 °C (-20 to 0 °C)<br>±0.5 °C (0 to +60 °C) | 0.1 %RH<br>0.1 °C 0560 2605 02 |
| <b>Flow</b>   |   |  |   |                                |
| <b>testo 405i</b><br>Thermal anemometer with smartphone operation, telescopic tube extendable to up to 400 mm, including batteries and calibration protocol   |   | 0 to 30 m/s<br>-20 to +60 °C   | ±(0.1 m/s + 5% of m.v.)<br>(0 to 2 m/s)<br>±(0.3 m/s + 5% of m.v.)<br>(2 to 15 m/s)<br>±0.5 °C  | 0.01 m/s<br>0.1 °C 0560 1405   |
| <b>testo 410i</b><br>Vane anemometer with smartphone operation, including batteries and calibration protocol  |   | 0.4 to 30 m/s<br>-20 to +60 °C   | ±(0.2 m/s + 2% of m.v.)<br>(0.4 to 20 m/s)<br>±0.5 °C   | 0.1 m/s<br>0.1 °C 0560 1410    |
| <b>Pressure</b>   |   |  |   |                                |
| <b>testo 510i</b><br>Differential pressure measuring instrument with smartphone operation, including hose kit (Ø 4 mm and 5 mm) with adapter, batteries and calibration protocol                                      |   | -150 to 150 hPa  | ±0.05 hPa (0 to 1 hPa)<br>±(0.2 hPa + 1.5% of m.v.)<br>(1 to 150 hPa)   | 0.01 hPa 0560 1510             |
| <b>testo 549i</b><br>High-pressure measuring instrument with smartphone operation, including batteries and calibration protocol   |   | -1 to 60 bar   | 0.5% of final value   | 0.01 bar 0560 2549 02          |

<sup>3)</sup> Please see the additional accuracy information for humidity in the instruction manual.

# Digital temperature probes

| Probe type  |   | Measuring range | Accuracy   | Resolution | Order no. |
|---|---|-----------------|--|------------|-----------|
| <b>Digital temperature probes</b>   |   |                 |  |            |           |
| <b>High-precision digital Pt100 penetration probe</b> for measurements in liquids and pastes with an accuracy of up to $\pm 0.05\text{ }^\circ\text{C}$ |    | -80 to +300 °C  | $\pm 0.3\text{ }^\circ\text{C}$ (-80 to -40.001 °C)<br>$\pm (0.1\text{ }^\circ\text{C} + 0.05\% \text{ of m.v.})$<br>(-40 to -0.001 °C)<br>$\pm 0.05\text{ }^\circ\text{C}$ (0 to +100 °C)<br>$\pm (0.05\text{ }^\circ\text{C} + 0.05\% \text{ of m.v.})$<br>(+100.001 to +300 °C)   | 0.001 °C   | 0618 0275 |
| <b>Digital Pt100 penetration probe</b> for measurements in liquids and pastes   |    | -100 to +400 °C | $\pm (0.15\text{ }^\circ\text{C} + 0.2\% \text{ of m.v.})$<br>(-100 to -0.01 °C)<br>$\pm (0.15\text{ }^\circ\text{C} + 0.05\% \text{ of m.v.})$<br>(0 to +100 °C)<br>$\pm (0.15\text{ }^\circ\text{C} + 0.2\% \text{ of m.v.})$<br>(+100.01 to +350 °C)<br>$\pm (0.5\text{ }^\circ\text{C} + 0.5\% \text{ of m.v.})$<br>(+350.01 to +400 °C) | 0.01 °C    | 0618 0073 |
| <b>Glass-coated digital Pt100 laboratory probe</b> for measurements in corrosive media  |    | -50 to +400 °C  | $\pm (0.3\text{ }^\circ\text{C} + 0.3\% \text{ of m.v.})$<br>(-50 to +300 °C)<br>$\pm (0.4\text{ }^\circ\text{C} + 0.6\% \text{ of m.v.})$<br>(+300.01 to +400 °C)   | 0.01 °C    | 0618 7072 |
| <b>Robust, fast-reaction, digital Pt100 air probe</b>   |    | -100 to +400 °C | $\pm (0.15\text{ }^\circ\text{C} + 0.2\% \text{ of m.v.})$<br>(-100 to -0.01 °C)<br>$\pm (0.15\text{ }^\circ\text{C} + 0.05\% \text{ of m.v.})$<br>(0 to +100 °C)<br>$\pm (0.15\text{ }^\circ\text{C} + 0.2\% \text{ of m.v.})$<br>(+100.01 to +350 °C)<br>$\pm (0.5\text{ }^\circ\text{C} + 0.5\% \text{ of m.v.})$<br>(+350.01 to +400 °C) | 0.01 °C    | 0618 0072 |
| <b>Flexible digital Pt100 temperature probe</b> for measurements in locations that are difficult to access and in liquids                               |  | -100 to +260 °C | $\pm (0.3\text{ }^\circ\text{C} + 0.3\% \text{ of m.v.})$  | 0.01 °C    | 0618 0071 |

# Analog temperature probe

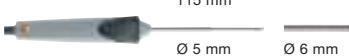
| Probe type  | Probe shaft/probe shaft tip dimensions  | Measuring range | Accuracy   | Response time | Order no. |
|---|---|-----------------|--|---------------|-----------|
| Pipe wrap probe (NTC) for pipe diameters of 5 to 65 mm, fixed cable 1.2 m   |    | -50 to +120 °C  | ±0.2 °C (-25 to +80 °C)  |               | 0615 5605 |
| Temperature probe with Velcro (NTC), fixed cable 1.4 m  |    | -50 to +70 °C   | ±0.2 °C (-25 to +70 °C)<br>±0.4 °C (-50 to -25.1 °C)   | 60 s          | 0615 4611 |
| Watertight immersion/penetration probe NTC, fixed cable 1.2 m   |    | -50 to +150 °C  | ±0.5% of m.v.<br>(+100 to +150 °C)<br>±0.2 °C (-25 to +74.9 °C)<br>±0.4 °C (remaining meas. range) | 10 s          | 0615 1212 |
| Robust air probe NTC, fixed cable 1.2 m   |    | -50 to +125 °C  | ±0.2 °C (-25 to +80 °C)<br>±0.4 °C (remaining meas. range)   | 60 s          | 0615 1712 |
| Clamp probe for measurements on pipes from 6 to 35 mm diameter, NTC, fixed cable 1.5 m  |    | -40 to +125 °C  | ±1 °C (-20 to +85 °C)  | 60 s          | 0615 5505 |
| Robust air probe, TC type K, fixed cable  |    | -60 to +400 °C  | Class 2 <sup>1)</sup>  | 200 sec       | 0602 1793 |
| Very fast-reaction surface probe with sprung thermocouple strip, also suitable for uneven surfaces, measuring range briefly up to +500 °C, TC type K, fixed cable                                   |  | -60 to +300 °C  | Class 2 <sup>1)</sup>  | 3 sec         | 0602 0393 |
| Fast-reaction paddle surface probe, for measurements in places that are difficult to access, e.g. narrow openings and cracks, TC type K, fixed cable  |  | 0 to +300 °C    | Class 2 <sup>1)</sup>  | 5 sec         | 0602 0193 |
| Precise, watertight surface probe with small measuring head for even surfaces, TC type K, fixed cable   |  | -60 to +1000 °C | Class 1 <sup>1)</sup>  | 20 sec        | 0602 0693 |
| Very fast-reaction surface probe with sprung thermocouple strip, angled for uneven surfaces as well, measuring range briefly up to +500 °C, TC type K, fixed cable                                  |  | -60 to +300 °C  | Class 2 <sup>1)</sup>  | 3 sec         | 0602 0993 |
| Surface temperature probe TC type K, with telescope max. 985 mm, for measurements in locations that are difficult to access, fixed cable 1.6 m (correspondingly shorter when telescope is extended) |  | -50 to +250 °C  | Class 2 <sup>1)</sup>  | 3 sec         | 0602 2394 |
| Magnetic probe, adhesive power approx. 20 N, with adhesive magnets, for measurements on metal surfaces, TC type K, fixed cable  |  | -50 to +170 °C  | Class 2 <sup>1)</sup>  | 150 sec       | 0602 4792 |
| Magnetic probe, adhesive power approx. 10 N, with adhesive magnets, for higher temperatures, for measurements on metal surfaces, TC type K, fixed cable   |  | -50 to +400 °C  | Class 2 <sup>1)</sup>  |               | 0602 4892 |

<sup>1)</sup> According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (type K), of Class 2 to -40 to +1200 °C (type K) and of Class 3 to -200 to +40 °C (type K). A probe only ever complies with one accuracy class.

#### Information about surface measurement:

- The specified response times  $t_{90}$  are measured on polished steel or aluminium plates at +60 °C.
- The specified accuracies are sensor accuracies.
- The accuracy in your application depends on the surface properties (roughness), the material of the measurement object (thermal capacity and heat transfer) and the sensor accuracy. Testo will produce a corresponding calibration certificate for the deviations of your measurement system in your application. For this, Testo uses a surface test bed developed in cooperation with the PTB (Physikalisch Technische Bundesanstalt - National Metrology Institute of Germany).

# Analogue temperature probes

| Probe type  | Dimensions<br>Probe shaft/probe shaft tip  | Measuring range  | Accuracy              | $t_{99}$ | Order no. |
|---|--|------------------|-----------------------|----------|-----------|
| Watertight surface probe with wider measuring tip for plane surfaces, TC type K, fixed cable  | <br>115 mm<br>Ø 5 mm      Ø 6 mm            | -60 to +400 °C   | Class 2 <sup>1)</sup> | 30 s     | 0602 1993 |
| Pipe wrap probe with Velcro strip, for measuring temperatures on pipes with diameters up to max. 120 mm, Tmax +120 °C, TC type K, fixed cable                         | <br>395 mm<br>20 mm                         | -50 to +120 °C   | Class 1 <sup>1)</sup> | 90 s     | 0628 0020 |
| Pipe wrap probe for pipe diameters 5 to 65 mm, with interchangeable measuring head, measuring range briefly up to +280 °C, TC type K, fixed cable                     |   | -60 to +130 °C   | Class 2 <sup>1)</sup> | 5 s      | 0602 4592 |
| Replacement measuring head for pipe wrap probe, TC type K   | <br>35 mm<br>15 mm                          | -60 to +130 °C   | Class 2 <sup>1)</sup> | 5 s      | 0602 0092 |
| Clamp probe for measurements on pipes, pipe diameters 15 to 25 mm (max. 1"), measuring range briefly up to +130 °C, TC type K, fixed cable                            |    | -50 to +100 °C   | Class 2 <sup>1)</sup> | 5 s      | 0602 4692 |
| Precise and fast immersion probe, flexible, watertight, TC type K, fixed cable  | <br>Ø 1.5 mm<br>300 mm                    | -60 to +1000 °C  | Class 1 <sup>1)</sup> | 2 s      | 0602 0593 |
| Ultra-fast, watertight immersion/penetration probe, TC type K, fixed cable  | <br>60 mm<br>Ø 5 mm<br>14 mm<br>Ø 1.5 mm  | -60 to +800 °C   | Class 1 <sup>1)</sup> | 3 s      | 0602 2693 |
| Immersion measuring tip, flexible, TC type K  | <br>Ø 1.5 mm<br>500 mm                    | -200 to +1000 °C | Class 1 <sup>1)</sup> | 5 s      | 0602 5792 |
| Immersion measuring tip, flexible, TC type K  | <br>Ø 1.5 mm<br>500 mm                    | -200 to +40 °C   | Class 3 <sup>1)</sup> | 5 s      | 0602 5793 |
| Immersion measuring tip, flexible, for measurements in air/flue gases (not suitable for measurements in smelters), TC type K  | <br>Ø 3 mm<br>1000 mm                     | -200 to +1300 °C | Class 1 <sup>1)</sup> | 4 s      | 0602 5693 |
| Watertight immersion/penetration probe, TC type K, fixed cable  | <br>114 mm<br>Ø 5 mm<br>50 mm<br>Ø 3.7 mm | -60 to +400 °C   | Class 2 <sup>1)</sup> | 7 s      | 0602 1293 |
| Flexible, low-mass immersion measuring tip, ideal for measurements in small volumes, such as Petri dishes or for surface measurements (e.g. fixed with adhesive tape) | <br>Ø 0.25 mm<br>500 mm                   | -200 to +1000 °C | Class 1 <sup>1)</sup> | 1 s      | 0602 0493 |
| Watertight food probe made of stainless steel (IP 65), TC type K, fixed cable   | <br>125 mm<br>Ø 4 mm<br>30 mm<br>Ø 3.2 mm | -60 to +400 °C   | Class 2 <sup>1)</sup> | 7 s      | 0602 2292 |

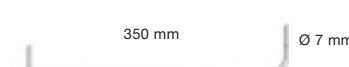
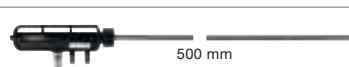
<sup>1)</sup> According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (type K), Class 2 to -40 to +1200 °C (type K), Class 3 to -200 to +40 °C (type K). A probe only ever complies with one accuracy class.

## Analogue probes

| Probe type  | Dimensions<br>Probe shaft/probe shaft tip  | Measuring range | Accuracy              | $t_{99}$ | Order no. |
|---|--|-----------------|-----------------------|----------|-----------|
| <b>Thermoelectric couples</b>   |  |                 |                       |          |           |
| Thermoelectric couple with TC plug, flexible, length 800 mm, fibreglass, TC type K  | <br>800 mm<br>Ø 1.5 mm  | -50 to +400 °C  | Class 2 <sup>1)</sup> | 5 s      | 0602 0644 |
| Thermoelectric couple with TC plug, flexible, length 1500 mm, fibreglass, TC type K | <br>1500 mm<br>Ø 1.5 mm | -50 to +400 °C  | Class 2 <sup>1)</sup> | 5 s      | 0602 0645 |
| Thermoelectric couple with TC plug, flexible, length 1500 mm, PTFE, TC type K       | <br>1500 mm<br>Ø 1.5 mm | -50 to +250 °C  | Class 2 <sup>1)</sup> | 5 s      | 0602 0646 |
| <b>Comfort probe</b>  |  |                 |                       |          |           |
| Globe thermometer Ø 150 mm, TC type K, for measuring radiant heat                   |                         | 0 to +120 °C    | Class 1 <sup>1)</sup> |          | 0602 0743 |

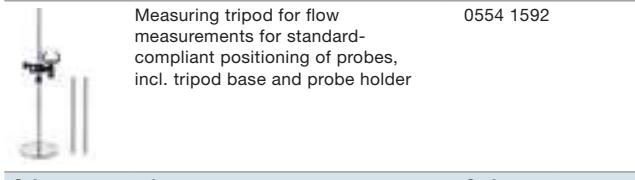
<sup>1)</sup> According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (type K), Class 2 to -40 to +1200 °C (type K), Class 3 to -200 to +40 °C (type K). A probe only ever complies with one accuracy class.

## Pitot tubes

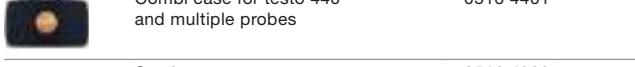
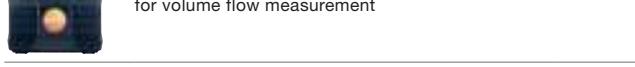
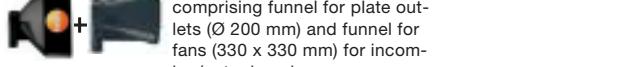
| Probe type   | Dimensions<br>Probe shaft/probe shaft tip  | Measuring range   | Order no. |
|--|--|---|-----------|
| Pitot tube, length 500 mm, Ø 7 mm, stainless steel, for measuring flow velocity*                   | <br>500 mm<br>Ø 7 mm  | Measuring range 1 to 100 m/s<br>Operating temperature 0 to +600 °C<br>Pitot tube factor 1.0                                       | 0635 2045 |
| Pitot tube, length 350 mm, Ø 7 mm, stainless steel, for measuring flow velocity*                   | <br>350 mm<br>Ø 7 mm  | Measuring range: 1 to 100 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 1.0                                    | 0635 2145 |
| Pitot tube, length 1000 mm, stainless steel, for measuring flow velocity*                          | <br>1000 mm<br>Ø 7 mm | Measuring range: 1 to 100 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 1.0                                    | 0635 2345 |
| Straight Pitot tube with integrated temperature measurement, incl. connection hose, length 360 mm  | <br>360 mm            | Measuring range: 1 to 30 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 0.67<br>Minimum immersion depth: 150 mm | 0635 2043 |
| Straight Pitot tube with integrated temperature measurement, incl. connection hose, length 500 mm  | <br>500 mm            | Measuring range: 1 to 30 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 0.67<br>Minimum immersion depth: 150 mm | 0635 2143 |
| Straight Pitot tube with integrated temperature measurement, incl. connection hose, length 1000 mm | <br>1000 mm           | Measuring range: 1 to 30 m/s<br>Operating temperature: 0 to +600 °C<br>Pitot tube factor: 0.67<br>Minimum immersion depth: 150 mm | 0635 2243 |

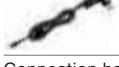
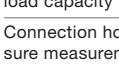
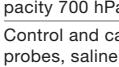
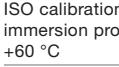
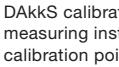
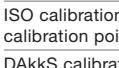
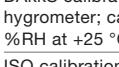
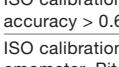
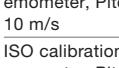
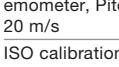
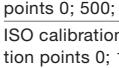
\*Connection hose required (order no. 0554 0440) or (order no. 0554 0453)

# Accessories

| Accessories for digital air velocity probes   | Order no. |
|---|-----------|
|                                        |           |
| Extendible telescope for testo 440 air flow probes (37.5 to 100 cm incl. 90° angle)                                     | 0554 0960 |
|                                        |           |
| Telescope extension (0.9 m) for testo 440 flow probes   | 0554 0990 |
|                                        |           |
| 90° angle for connecting vane probes (Ø 100 mm)   | 0554 0991 |
|                                        |           |
| Handle adapter for connection to flow probes  | 0554 2160 |
|                                        |           |
| Telescopic rod with universal joint for testo 400 / testo 440 / testo 480 flow velocity probes (0.6 to 1.8 m)           | 0430 0946 |
|                                       |           |
| Measuring tripod for flow measurements for standard-compliant positioning of probes, incl. tripod base and probe holder | 0554 1592 |

| Other accessories  | Order no. |
|--|-----------|
|   |           |
| Measuring stand for comfort level measurements with standard-compliant positioning of probes (incl. case)                            | 0554 1590 |
|   |           |
| Combi case for testo 440 and multiple probes   | 0516 4401 |
|   |           |
| Service case for volume flow measurement   | 0516 4900 |
|   |           |
| testovent 417 funnel set comprising funnel for plate outlets (Ø 200 mm) and funnel for fans (330 x 330 mm) for incoming/outgoing air | 0563 4170 |

| Other accessories  | Order no. |
|--|-----------|
|   |           |
| Flow straightener testovent 417  | 0554 4172 |
|   |           |
| USB mains unit incl. cable   | 0554 1105 |
|   |           |
| Connection hose, silicone, length 5 m, maximum load capacity 700 hPa (mbar)  | 0554 0440 |
|   |           |
| Connection hose silicone-free for differential pressure measurement, length 5 m, maximum load capacity 700 hPa, (mbar)                     | 0554 0453 |
|   |           |
| Control and calibration set for Testo humidity probes, saline solution with 11.3 %RH and 75.3 %RH, incl. adapter for Testo humidity probes | 0554 0660 |
| Printer  | Order no. |
|   |           |
| BLUETOOTH®/IRDA printer incl. battery and mains unit   | 0554 0621 |
|   |           |
| Spare thermal paper for printer (6 rolls), measurement data documentation can be read for up to 10 years                                   | 0554 0568 |
| Calibration certificates   | Order no. |
|    |           |
| ISO calibration certificate (temperature), for air/immersion probe, calibration points -18 °C; 0 °C; +60 °C                                | 0520 0001 |
|   |           |
| DAkkS calibration certificate (temperature); measuring instruments with air/immersion probe; calibration points -20 °C; 0 °C; +60 °C       | 0520 0211 |
|   |           |
| ISO calibration certificate humidity, calibration points 11.3 %RH and 75.3 %RH at +25°C  | 0520 0006 |
|   |           |
| DAkkS calibration certificate (humidity); electronic hygrometer; calibration points 11.3 %RH and 75.3 %RH at +25 °C                        | 0520 0206 |
|   |           |
| ISO calibration certificate (pressure); accuracy > 0.6 (% of f.v.)   | 0520 0005 |
|   |           |
| ISO calibration certificate flow, hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s                                | 0520 0004 |
|   |           |
| ISO calibration certificate flow, hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s                              | 0520 0034 |
|   |           |
| ISO calibration certificate (luminance) calibration points 0; 500; 1000; 2000; 4000 lux  | 0520 0010 |
|   |           |
| ISO calibration certificate (CO <sub>2</sub> ; CO <sub>2</sub> probes); calibration points 0; 1000; 5000 ppm                               | 0520 0033 |

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Subject to change without notice.