

# Universal IAQ instrument

testo 400 - the multitasker for IAQ professionals

Measures all IAQ-related parameters: Flow, temperature, humidity, pressure, illuminance, radiant heat, turbulence, CO<sub>2</sub> and CO

High-precision, location-independent and integrated differential pressure sensor

High-quality digital probes and an intelligent calibration concept

Document measuring values directly on the customer's site and send them by e-mail, or further analyze them using the testo DataControl PC software

Smart and intuitive measurement programs:

- HVAC grid measurement in accordance with ASHRAE 111
- PMV/PPD in accordance with ASHRAE 55
- Draft and degree of turbulence in accordance ASHRAE 55



Compatible with a comprehensive selection of Bluetooth® and cable probes.



testo 400 is the universal measuring instrument for all IAQ professionals, enabling them to measure, document and analyze all IAQ parameters with just one instrument. Benefits include:

- Smart support through stored measurement menus and evaluation of measuring values according to the traffic light principle – for error-free measurements
- Manage all the relevant customer data, including measuring points, directly in the instrument - work directly and efficiently on site
- Complete and send measuring values with full documentation, including photos, comments and your own logo directly on site – get to the next job faster
- Probe heads can be changed without restarting the instrument – easy handling with no lost time

- Calibration of probes which is independent of the measuring instrument and adjustment function at up to six measuring points for zero-error display – fewer downtimes and highprecision measurements
- PIN Lock Feature Protect date, time and calibration settings from data manipulation in controlled environmental applications.

As consultants, experts, technical service providers or service technicians in the air conditioning and ventilation sector, the testo 400 therefore supports you in the truly smart performance of your measuring tasks. Relevant quality parameters in industrial production and manufacturing processes can also be reliably and accurately checked using the testo 400.



#### Technical data

Differential pressu	re (integrated)
Measuring range	0 to +80 InH <sub>2</sub> O
Accuracy (±1 digit)	±(0.0012 lnH <sub>2</sub> O ±1% of m.v.) (0 to 10.037 lnH <sub>2</sub> O) ±(0.04 lnH <sub>2</sub> O ±1.5% of m.v.) (10.038 lnH <sub>2</sub> O to 80 lnH <sub>2</sub> C
Resolution	0.0004 InH <sub>2</sub> O
Absolute pressure	(integrated)
Measuring range	-10 to 16 psi
Accuracy (±1 digit)	± 0.044 psi
Resolution	0.001 psi
Temperature NTC	(with appropriate probe)
Measuring range	-40 to 302 °F
Accuracy (±1 digit)	±0.36 °F (-13 to 166.8 °F) ±0.72 °F (-40 to -13.1 °F) ±0.72 °F (166.9 to 212 °F) ±0.5% of m.v. (remaining meas. range)
Resolution	0.18 °F
Temperature TC ty	pe K (with appropriate probe)
Measuring range	-328 to 2,498 °F
Accuracy (±1 digit)	±(0.54 °F + 0.1% of m.v.)
Resolution	0.1 °F

 $<sup>^{\</sup>circ}\text{PC}$  software testo DataControl for data analysis, download available free of charge after registration at www.testo.com.

General technical da	ta
Probe connections	4x Bluetooth®, 2x TUC*, 2x TC type K
Interfaces	Bluetooth®, WiFi, USB
Operating temperature	+23 to 113 °F
Storage temperature	-4 to 140 °F
Power supply	Rechargeable li-ion battery (5550 mAh)
Battery life	approx. 12 hrs continuous operation
Display	5.0 inch HD touch display 1280 x 720 px resolution
Camera	Main camera: 8.0 MP Front camera: 5.0 MP
Memory	2 GB (corresponds to approx. 1,000,000 readings)
Protection class	IP40
Dimensions	8.3" x 3.7" x 1.5" / 210 x 95 x 39 mm
Weight	17.6 oz / 500 g

<sup>\*</sup>TUC connection (Testo Universal Connector): For the connection of fixed cable digital probes and NTC probes.

### Ordering data







#### Ordering data for kits

#### testo 400 air flow kit

#### for TAB / Commissioning professionals

- testo 400 universal instrument, including transport case for air flow measurement, testo DataControl software, power supply with USB cable and calibration protocol
- Hot wire probe with Bluetooth®, including temperature and humidity sensor (comprised of: hot wire probe head, telescope (extendable to 3.3 ft.) handle adapter and Bluetooth® handle), 4 x AA batteries and calibration protocol
- Vane an emometer probe head (Ø 4 in.), including temperature sensor and calibration protocol
- 2 x silicone pressure hoses and pitot tube (13.8 in.)
- 90° angle for connecting air flow probes

Order no. 0563 0407



#### testo 400 IAQ kit

#### for Commissioning and IAQ investigation professionals

- testo 400 universal instrument, including transport case, testo
   DataControl software, power supply with USB cable and calibration
   protocol
- $\rm CO_2$  probe with Bluetooth®, including temperature and humidity sensor (comprised of:  $\rm CO_2$  probe head and Bluetooth® handle), 4 x AA batteries and calibration protocol
- CO probe with Bluetooth® (comprised of: CO probe head and Bluetooth® handle), 4 x AA batteries and calibration protocol



Order no. 0563 0408

#### testo 400 comfort kit

#### for comfort professionals in high performance buildings

- testo 400 universal instrument, including transport case for comfort level measurement, testo DataControl software, power supply with USB cable and calibration protocol
- Humidity / temperature probe with Bluetooth®, (comprised of: humidity probe head and Bluetooth® handle), 4 x AA batteries, and calibration protocol
- Turbulence probe with fixed cable, including calibration protocol
- Lux probe with fixed cable including calibration protocol





### Digital flow probes

Probe type		Measuring range	Accuracy	Resolution	Order no.
Digital flow probes					
Hot wire probe with Bluetooth®, including temperature and humidity sensor	22.5 to 39.4 in		±(0.03 + 4% of m.v.) (0 to 98.43 fpm) ±(1.6 ft/s + 5% of m.v.)		0635 1571
Hot wire probe, fixed cable, including temperature and humidity sensor	22.5 to 39.4 in	0 to 9,842.5 fpm -4 to 158 °F 5 to 95% RH	(3,939 to 5,905.5 fpm)	1.97 fpm 0.1 °F 0.1% RH	0635 1572
Hot wire probe head, including temperature and humidity sensor	9 in		±3.0% RH (65 to 90% RH) ±5% RH (remaining meas. range)		0635 1570
Vane probe (Ø .63 in / 16 mm) with Bluetooth®, including temperature sensor	Ø .63 in Ø 16 mm	118 to 9,842.5 fpm 14 to 158 °F			0635 9571
Vane probe (Ø .63 in / 16 mm), fixed cable, including temperature sensor	22.5 to 39.4 in ———————————————————————————————————		±(39.37 fpm + 1% of m.v.) (118 to 787 fpm) ±(39.37 fpm + 2% of m.v.) (7,874 to 9,842.5 fpm) ±3.2 °F	1.97 fpm 0.1 °F	0635 9572
Vane probe head (Ø .63 in / 16 mm), including temperature sensor	9 in ———————————————————————————————————				0635 9570
Hot wire probe, fixed cable, including temperature sensor	11.8 to 33.5 in Ø .47 in Ø .35 in	0 to 5,905.5 fpm -4 to 158 °F	±(1.97 fpm + 4% of m.v.) (0 to 3,937 fpm) ±(98.42 fpm + 5% of m.v.) ±0.9 °F	1.97 fpm 0.1 °F	0635 1032
Vane probe (Ø .63 in / 16 mm), fixed cable	11.8 to 33.5 in Ø .47 in Ø .63 in	118 to 9,842.5 fpm	±(39.37 fpm + 1% of m.v.) (118 to 7,874 fpm) ±(39.37 fpm + 2% of m.v.) (7874 to 9,842.5)	19.7 fpm	0635 9532
Fume hood probe, fixed cable	5.9 in Ø .39 in	0 to 984.25 fpm 32 to 122 °F	±(39.37 fpm + 5% of m.v.) (0 to 984.25 fpm) ±0.9 °F	1.97 fpm 0.1 °F	0635 1052
	large cross-section, we recommend a				
High-precision vane probe	extended to up to 6.5 ft for all air velo	city probes wit	th an interchangeable h	andle.	0635 9371
(Ø 4 in / 100 mm) with Bluetooth®, including temperature sensor	3 4 in				0000 007 1
High-precision vane probe (Ø 4 in / 100 mm), fixed cable, including temperature sensor	Ø 4 in	19.7 to 2952.8 fpm -4 to 158 °F	±(1.97 fpm + 1.5% of m.v.) (19.7 to 2,952.8 fpm) ±0.9 °F	1.97 fpm 0.1 °F	0635 9372
High-precision vane probe head (Ø 4 in / 100 mm), including temperature sensor	<b>3</b> +≥¹	-			0635 9370
Vane probe (Ø 4 in / 100 mm) with Bluetooth®, including temperature sensor	8 o 4 in	59 to 6889.8 fpm -4 to 158°F			0635 9431
Vane probe (Ø 4 in / 100 mm), fixed cable, including temperature sensor	Ž 4 in		±(0.1 m/s + 1.5% of m.v.) 59 to 3,937 fpm) ±(39.37 fpm + 1.5% of m.v.) (3,939 to 6,889.76 fpm) ±0.9 °F	1.97 fpm 0.1 °F	0635 9432
Vane probe head (Ø 4 in / 100 mm), including temperature sensor	(§) + ≥ 10 0 4 in		±∪. <b>∂</b> Γ		0635 9430

1) For use with cable handle (order no. 0554 2222) or Bluetooth® handle (order no. 0554 1111) in conjunction with an adapter (order no. 0554 2160).

For convenient ceiling measurements, the telescope with  $90^\circ$  angle (0550 0960) has been developed. It can be easily attached to the 4 inch (100 mm) vane probes.



### Other digital probes and probe accessories

Probe type		Measuring range	Accuracy	Resolution	Order no.
Digital humidity probes					
Humidity/temperature probe with Bluetooth®	11.41 in Ø .47 in				0636 9731
Humidity/temperature probe, fixed cable	11.41 in Ø .47 in	0 to 100% RH -4 to 158°F	±2% RH (5 to 90% RH) ±0.9 °F	0.1% RH 0.1 °F	0636 9732
Humidity/temperature probe head	5.5 in Ø .47 in	-			0636 9730
High-precision humidity/temperature probe with Bluetooth®	11.41 in Ø.47 in		±(0.6% RH + 0.7% of m.v.)		0636 9771
High-precision humidity/temperature probe, fixed cable	11.41 in Ø.47 in	0 to 100% RH -4 to 158°F	(0 to 90% RH) ±(1.0% RH + 0.7% of m.v.) (90 to 100% RH) ±0.5 °F (59 to 86 °F)	0.01% RH 0.1 °F	0636 9772
High-precision humidity/temperature probe head	5.5 in Ø .47 in		±0.9 °F (remaining meas. range)		0636 9770
Robust humidity/temperature probe for temperatures up to 356 °F, fixed cable	10.6 in Ø .47 in	0 to 100% RH -4 to 356°F	±3% RH (0 to 2% RH) ±2% RH (2.1 to 98% RH) ±3% RH (98.1 to 100% RH) ±0.9 °F (-4 to 32 °F) ±0.7 °F (32 to 122°F) ±0.9 °F (122 to 356 °F)	0.1% RH 0.1 °F	0636 9775
Digital comfort probes		,		,	
Turbulence probe, fixed cable	7.48 in	0 to 984.25 fpm 32 to 122 °F	±(5.9 fpm + 4% of m.v.) (0 to 984.25 fpm) ±0.9 °F	1.97 fpm 0.1 °F	0628 0152
Lux probe, fixed cable	4.33 in 2.17 in	0 to 100,000 lux	Class C According to DIN 5032-7 f1 = 6% = V-Lambda f2 = 6% cos	0.1 lux (< 10,000 lux) 1 lux (≥ 10,000 lux)	0635 0551
CO <sub>2</sub> probe with Bluetooth®, including temperature and humidity sensor	11 in 1.18 in		±(50 ppm + 3% of m.v.) (0 to 5,000 ppm) ±(100 ppm + 5% of m.v.)	1 ppm 0.1% RH 0.1 °F	0632 1551
CO <sub>2</sub> probe, fixed cable, including temperature and humidity sensor	11 in 1.18 in	0 to 10,000 ppm CO <sub>2</sub> 5 to +95% RH 32 to 122 °F			0632 1552
CO <sub>2</sub> probe head, including temperature and humidity sensor	5.11 in 1.18 in	-	±5% RH (remaining meas. range) ±0.9 °F		0632 1550
CO probe with Bluetooth®	7.87 in 1.18 in.			0.1 ppm	0632 1271
CO probe, fixed cable	7.87 in 1.18 in.	0 to 500 ppm	±3 ppm (0 to 30 ppm) ±10% of m.v. (30.1 to 500 ppm)		0632 1272
CO probe head	1.18 in	-			0632 1270
Probe handles and adapters					
Bluetooth® handle for connecting testo 400 testo 440 probe heads	8				0554 1111
Cable handle for connecting testo 400 / testo 440 probe heads					0554 2222
Handle adapter for connecting testo 400 / testo 440 flow probes		- 1			0554 2160

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



#### **Testo Smart Probes**

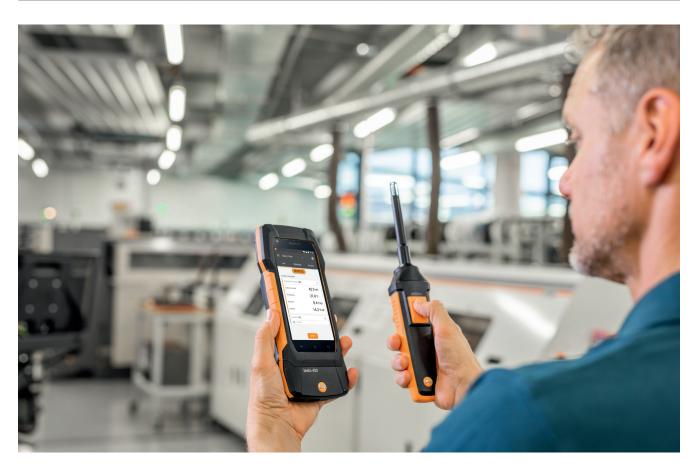
Testo Smart Probes		Measuring range	Accuracy ±1 digit	Resolution	Order no.
Temperature					
testo 115i Clamp thermometer with smartphone operation, for measurements on pipelines with diameters of 0.24 in. to max. 1.38 in., including batteries and calibration protocol	8	-40 to 302 °F	±2.3 °F (-4 to 185 °F)	0.1 °F	0560 2115 03
testo 915i - with flexible probe Wireless Smart Probe testo 915i with rlexible probe (TC Type K), incl. batteries and calibration protocol	8	-58 to 302 °F	±1.8 °F (-22 to 186 °F) ±(1.3 °F +1 % of m.v.) (-58 to -22 °F) ±(0.4 °F +1 % of m.v.) (186 to 752 °F)	0.1 °F	0563 4915
Temperature probe kit Universal temperature kit consisting of plug-in (Type K TC) immersion/ penetration probe, air probe and surface probes	8	Air -58 to 752 °F  Immersion -58 to 752 °F  Surface -58 to 482 °F	Air and Immersion Probes ±1.8 °F (-58 to 212 °F) ±1 % of m.v. (remaining meas. range) Surface ±(1.8 °F +1 % of m.v.)	0.1 °F	0602 5093
testo 805i Infrared thermometer with smartphone operation, including batteries and calibration protocol	<b>≫</b>	-22 to 482 °F	2.7 °F or ±1.5 % of mv (32 to 482 °F) ±4 °F (-4 to 32 °F) ±4.5 °F (-22 to -4.2 °F)	0.1 °F	0560 1805
Humidity					
testo 605i Thermohygrometer with smartphone operation, including batteries and calibration protocol	8	0 to 100% RH -4 to 140 °F	±3.0 %RH (10 to 35 %RH) ±2.0 %RH (35 to 65 %RH) ±3.0 %RH (65 to 90 %RH) ±5 %RH (< 10 %RH or > 90 %RH) (at 77 °F)	0.1% RH 0.1 °F	0560 2605 03
Flow					
testo 405i Thermal anemometer with smartphone operation, telescopic tube extendable to up to 15.75 in., including batteries and calibration protocol	8	0 to 5,906 fpm -4 to 140 °F	±(19.7 fpm + 5 % of mv) (0 to 394 fpm) ±(59.1 fpm + 5 % of mv) (394 to 2,953 fpm) ±0.9 °F	1.97 fpm 0.1 °F	0560 1405
testo 410i Vane anemometer with smartphone operation, including batteries and calibration protocol	*	78.7 to 5,906 fpm -4 to 140 °F	±(39.4 fpm + 2 % of mv) (78.7 to 3,937 fpm) ±0.9 °F	19.7 fpm 0.1 °F	0560 1410
Pressure					
testo 510i Differential pressure measuring Instrument with smartphone operation, Including hose kit (Ø 0.16 in and 0.2 in.) Including hose kit (Ø o.16 in and o.2 in.) Including hose kit (Ø o.16 in and o.2 in.)	**	-60 to 60 InH₂O	$\pm 0.02 \text{ InH}_2\text{O}$ $\pm (0.1 \text{ InH}_2\text{O} + 1.5 \% \text{ of mv})$ $(+0 \text{ to } +60 \text{ InH}_2\text{O})$	0.004 InH <sub>2</sub> O	0560 1510
testo 549i High-pressure measuring instrument with smartphone operation, including batteries and calibration protocol		-14 to 870 psi	0.5 % of final value	0.14 psi	0560 2549 03

<sup>&</sup>lt;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.
Digital temperature probes					
High-precision digital Pt100 penetration probe for measurements in liquids and pastes with an accuracy of up to ±0.09 °F	11.6 in Ø .16 in	-112 to 572 °F	±0.54 °F (-112 to -40.001 °F) ±(0.18 °F + 0.05% of m.v.) (-40 to 31.9 °F) ±0.09 °F (32 to 212 °F) ±(0.09 °F + 0.05% of m.v.) (212.01 to 572 °F)	0.001 °F	0618 0275
<b>Digital Pt100 penetration probe</b> for measurements in liquids and pastes	7.87 in Ø 0.12 in	-148 to 752 °F	$ \begin{array}{l} \pm (0.27\ ^{\circ}F + 0.2\%\ of\ m.v.) \\ (-148\ to\ 31.9\ ^{\circ}F) \\ \pm (0.27\ ^{\circ}F + 0.05\%\ of\ m.v.) \\ (32\ to\ 212\ ^{\circ}F) \\ \pm (0.27\ ^{\circ}F + 0.2\%\ of\ m.v.) \\ (212.01\ to\ 662\ ^{\circ}F) \\ \pm (0.9\ ^{\circ}F + 0.5\%\ of\ m.v.) \\ (662.01\ to\ 752\ ^{\circ}F) \end{array} $	0.01 °F	0618 0073
Glass-coated digital Pt100 laboratory probe for measurements in corrosive media	7.87 in Ø .24 in	-58 to 752 °F	±(0.54 °F + 0.3% of m.v.) (-58 to 572 °F) ±(0.72 °F + 0.6% of m.v.) (572.01 to 752 °F)	0.01 °F	0618 7072
Robust, fast-reaction, digital Pt100 air probe	7.87 in Ø.16 in	-148 to 752 °F	$\pm (0.27  ^{\circ}\text{F} + 0.2\%  \text{of m.v.})$ $(-148  \text{to}  31.9  ^{\circ}\text{F})$ $\pm (0.27  ^{\circ}\text{F} + 0.05\%  \text{of m.v.})$ $(32  \text{to}  212  ^{\circ}\text{F})$ $\pm (0.27  ^{\circ}\text{F} + 0.2\%  \text{of m.v.})$ $(212.01  \text{to}  662  ^{\circ}\text{F})$ $\pm (0.9  ^{\circ}\text{F} + 0.5\%  \text{of m.v.})$ $(662.01  \text{to}  752  ^{\circ}\text{F})$	0.01 °F	0618 0072
Flexible digital Pt100 temperature probe for measurements in locations that are difficult to access and in liquids	Ø 0.16 in Length 39.37 in	-148 to 509 °F	±(0.54 °F + 0.3% of m.v.)	0.01 °F	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 0.2 to 2.56 in, fixed cable 47.24 in		-58 to 248 °F	±0.36 °F (-13 to 176 °F)		0615 5605
Temperature probe with Velcro (NTC), fixed cable 55.12 in	11.8 in	-58 to 158 °F	±0.36 °F (-13 to 158 °F) ±0.72 °F (-58 to -13.1 °F)	60 s	0615 4611
Watertight immersion/penetration probe NTC, fixed cable 3.9 ft	4.5 in. 2 in.	-58 to 302 °F	±0.5 % of mv (212 to 302 °F) ±0.4 °F (-13 to 166.8 °F) ±0.7 °F (Remaining Range)	10 s	0615 1212
Robust air probe NTC, fixed cable 3.9 ft	4.5 in. 2 in. 0 0.2 in. 0 0.	-58 to 257 °F	±0.4 °F (-13° to 176 °F) ±0.7 °F (Remaining Range)	60 s	0615 1712
Clamp probe for measurements on pipes from 0.25 to 1.5 in. diameter, NTC, fixed cable 5 feet	00	-40 to 257 °F	±1.8 °F (-4 to 185 °F)	60 s	0615 5505
Robust air probe, TC type K, fixed cable	4.5 in. Ø 0.16 in	-76 to 752 °F	Class 2 <sup>1)</sup>	200 sec	0602 1793
Fast-reaction surface probe with sprung thermocouple strip, also suitable for non-plane surfaces, measuring range briefly up to 932 °F, TC type K, fixed cable	4.5 in. Ø 0.2 in. Ø 0.	-76 to 572 °F	Class 2 1)	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	5.7 in 1	32 to 572 °F	Class 2 1)	5 sec	0602 0193
Precise, watertight surface probe with small measuring head for even surfaces, TC type K, fixed cable	5.9 in Ø 0.1 in Ø 0.	-76 to 1,832 °F	Class 1 1)	20 sec	0602 0693
Fast-reaction surface probe with sprung thermocouple strip, angled for non-plane surfaces as well, measuring range briefly up to 932 °F, TC type K, fixed cable		-76 to 572 °F 47 in.	Class 2 <sup>1)</sup>	3 sec	0602 0993
Surface temperature probe TC type K, with telescope max. 39 in., for measurements in places that are difficult to access, fixed cable 5.25 ft. (correspondingly shorter when telescope is extended)	39 in. 0.47		Class 2 1)	3 sec	0602 2394
Magnetic probe, adhesive power approx. 20 N, with adhesive magnets, for measurements on metal surfaces, TC type K, fixed cable	1.4 in. Ø 0.79 in.	-58 to 338 °F	Class 2 1)	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	3.5 in. Ø 0.83 in.	-58 to 752 °F	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 1,832 °F (type K), of Class 2 to -40 to 2,192 °F (type K) and of Class 3 to -328 to 104 °F (type K). A probe only ever complies with one accuracy class.

- The specified response times t<sub>op</sub> are measured on polished steel or aluminium plates at 140 °F.
   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).



### Analog temperature probe

Probe type	Probe shaft/probe shaft tip dimensions	Measuring range	Accuracy	t <sub>99</sub>	Order no.
Watertight surface probe with wider measuring tip for even surfaces, TC type K, fixed cable	4.5 in Ø 0.2 in Ø 0.24 in	-76 to 752 °F	Class 2 1)	30 sec	0602 1993
Pipe wrap probe with Velcro strip, for measuring temperatures on pipes with diameters up to max. 4.7 in., Tmax 248 °F, TC type K, fixed cable	15.6 in 0.79 in	-58 to 248 °F	Class 1 1)	90 sec	0628 0020
Pipe wrap probe for pipe diameters 0.2 in. to 2.5 in., with interchangeable measuring head, measuring range briefly up to 536 °F, TC type K, fixed cable		-76 to 266 °F	Class 2 1)	5 sec	0602 4592
Replacement measuring head for pipe wrap probe, TC type K	1.4 in 0.59 in	-76 to 266 °F	Class 2 <sup>1)</sup>	5 sec	0602 0092
Clamp probe for measurements on pipes, pipe diameters 0.5 to 1 in., measuring range briefly up to 266 °F, TC type K, fixed cable		-58 to 212 °F	Class 2 <sup>1)</sup>	5 sec	0602 4692
Precise and fast immersion probe, flexible, watertight, TC type K, fixed cable	Ø 0.05 in.  11.8 in.	-76 to 1,832 °F	Class 1 1)	2 sec	0602 0593
Ultra-fast, watertight immersion/ penetration probe, TC type K, fixed cable	2.4 in. 0.55 in. 0.06 in.	-76 to 1,472 °F	Class 1 1)	3 sec	0602 2693
Immersion measuring tip, flexible, TC type K	Ø 0.06 in. 19.7 in	-40 to 1,832 °F	Class 1 ¹)	5 sec	0602 5792
Immersion measuring tip, flexible, TC type K	Ø 0.06 in. 19.7 in.	-328 to 104 °F	Class 3 <sup>1)</sup>	5 sec	0602 5793
Immersion measuring tip, flexible, for measurements in air/flue gases (not suitable for measurements in smelters), TC type K	Ø 0.12 in. 39.4 in.	-40 to 1,832 °F	Class 1 1)	4 sec	0602 5693
Watertight immersion/penetration probe, TC type K, fixed cable	4.48 in. 2 in. Ø 0.2 in. Ø 0.15 in.	-76 to 752 °F	Class 2 <sup>1)</sup>	7 sec	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)	Ø 0.01 in. 19.7 in.  TC type K, 2 m, FEP-insulated thermal wire, temperature-resistant up to 392 °F, oval cable with dimensions: 0.09 x 0.06 in.	-40 to 1,832 °F	Class 1 1)	1 sec	0602 0493
Watertight food probe made of stainless steel (IP65), TC type K, fixed cable	5 in 1.18 in Ø 0.16 in Ø 0.13 in	-76 to 752 °F	Class 2 <sup>1)</sup>	7 sec	0602 2292

<sup>&</sup>lt;sup>1)</sup> According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to 1,832 °F (type K), of Class 2 to -40 to 2,192 °F (type K) and of Class 3 to -328 to 104 °F (type K). A probe only ever complies with one accuracy class.



### **Analog probes**

Probe type	Probe shaft/probe shaft tip dimensions	Measuring range	Accuracy	<b>t</b> <sub>99</sub>	Order no.
Thermoelectric couples			'	,	,
Thermoelectric couple with TC plug, flexible, length 31.5 in, fibreglass, TC type K	31.5 in. Ø 0.6 in.	-58 to 752 °F	Class 2 <sup>1)</sup>	5 sec	0602 0644
Thermoelectric couple with TC plug, flexible, length 59 in., fibreglass, TC type K	59 in. Ø 0.6 in.	-58 to 752 °F	Class 2 1)	5 sec	0602 0645
Thermoelectric couple with TC plug, flexible, length 59 in., PTFE, TC type K	59 in. Ø 0.6 in	-58 to 482 °F	Class 2 1)	5 sec	0602 0646
Comfort probe					
Globe thermometer Ø 5.9 in., TC type K, for measuring radiant heat		32 to 248 °F	Class 1 1)		0602 0743

<sup>&</sup>lt;sup>1)</sup> According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to 1,832 °F (type K), Class 2 to -40 to 2,192 °F (type K), Class 3 to -328 to 104 °F (type K). A probe only ever complies with one accuracy class.

WBGT kit			
WBGT (wet bulb globe temperature) kit for assessing workplaces affected by heat in line with ISO 7243, comprising globe, ambient temperature / wet bulb temperature probe, plug-in head cables, tripod and case	32 to 248 °F 50 to 140 °F 41 to 104 °F	±3% RH (0 to 2% RH) ±2% RH (2.1 to 98% RH) ±3% RH (98.1 to 100% RH) ±(0.45 °F +0.3% of m.v.) ±(0.45 °F +0.3% of m.v.)	0635 8888 ID no. 0699 7220/1

#### Pitot tubes

Probe type	Probe shaft/probe shaft tip dimensions	Measuring range	Order no.
Pitot tube, length 19.7 in., Ø 0.3 in., stainless steel, for measuring flow velocity*	19.7 in. Ø 0.3 in.	Measuring range 197 to 19,685 fpm Operating temperature 32 to 1,112 °F Pitot tube factor 1.0	0635 2045
Pitot tube, length 13.8 in., Ø 0.3 in., stainless steel, for measuring flow velocity <sup>⋆</sup>	13.8 in. Ø 0.3 in.	Measuring range 197 to 19,685 fpm Operating temperature 32 to 1,112 °F Pitot tube factor: 1.0	0635 2145
Pitot tube, length 39.4 in., Ø 0.3 in., stainless steel, for measuring flow velocity*	39.4 in. Ø 0.3 in.	Measuring range 197 to 19,685 fpm Operating temperature 32 to 1,112 °F Pitot tube factor: 1.0	0635 2345
Straight Pitot tube with integrated temperature measurement, incl. connection hose, length 14.17 in.	14.17 in.	Measuring range: 197 to 5,906 fpm Operating temperature: 32 to 1,112 °F Pitot tube factor: 0.67 Minimum immersion depth: 5.9 in.	0635 2043
Straight Pitot tube with integrated temperature measurement, incl. connection hose, length 19.7 in.	19.7 in.	Measuring range: 197 to 5,906 fpm Operating temperature: 32 to 1,112 °F Pitot tube factor: 0.67 Minimum immersion depth: 5.9 in.	0635 2143
Straight Pitot tube with integrated temperature measurement, incl. connection hose, length 39.4 in.	39.4 in.	Measuring range: 197 to 5,906 fpm Operating temperature: 32 to 1,112 °F Pitot tube factor: 0.67 Minimum immersion depth: 5.9 in.	0635 2243

<sup>\*</sup>Connection hose required (order no. 0554 0440) or (order no. 0554 0453)



### Accessories

Accessories for comf	ort level measurement	Order no.
	IAQ data logger for long-term measurements with the testo 400	0577 0400
	Measuring tripod for comfort level measurements with standard-compliant positioning of probes (including bag)	0554 1591
Accessories for digita	al flow probes	Order no.
	or testo 400 / 440 flow probes (14.8 to 39.4 in including 90° angle)	0554 0960
Telescope extension (39	1.4 in) for testo 400 / 440 flow probes	0554 0990
	90° angle for connecting vane probes (Ø 4 in)	0554 0991
	Handle adapter for connection to flow probes	0554 2160
Other accessories		Order no.
testo	Transport case for air flow measurement (20.47 x 16.14 x 6.30 in / 520 x 410 x 160 mm)	0516 1400
	Transport case for IAQ and comfort level measurement (20.47 x 16.14 x 8.27 inches / 520 x 410 x 210 mm)	0516 2400
+	testovent 417 funnel kit comprising funnel for plate outlets (Ø 7.87 in) and funnel for fans (13 x 13 in) for incoming / outgoing air	0563 4170
	testovent 417 volume flow straightener	0554 4172
	USB Power Supply, including cable	0554 1106
	Connection hose, silicone, length 16.4 ft, maximum load capacity 280 InH <sub>2</sub> O	0554 0440
O	Connection hose, silicone-free for differential pressure measurement, length 16.4 ft, maximum load capacity 280 $\rm InH_2O$	0554 0453
11	Control and calibration kit for Testo humidity probes, saline solution with 11.3% RH and 75.3% RH, including adapter for Testo humidity probes	0554 0660



#### **Accessories**

Accessories for digital flow probes		Order no.	
	Telescoping probe (up to 5.9 feet) handle with swivel head - for slanted ceiling outlets	0430 0946	
	Measuring tripod for flow measurements for standard-compliant positioning of probes, incl. tripod base and probe holder	0554 1592	

Other accessories	
testo Bluetooth® printer, incl. 1 roll of thermal paper, rech. battery and power supply	0554 0621
Spare thermal paper for printer (6 rolls),	0554 0568

Calibration certificates	Order no.
NIST Air velocity certificate at 3 standard points	400520 4401
NIST Air velocity certificate at 3 custom points	400520 4402
NIST Flow Hood Certificate at 4 standard points	400520 4403
NIST pressure certificate	400520 7501
NIST RH certificate at 2 standard points 11.3% and 75.3% RH	400520 2601
NIST RH certificate at 2 standard points 11.3% and 75.3% RH and Temp certificate at 25 °C	400520 2602
NIST Temp certificate at 2 custom points	400520 2603
NIST Temp certificate at 3 standard points: 10°C, 25°C, 40°C, or -20°C, 25°C, 40°C	400520 1901
NIST Temperature certificate at 3 custom points	400520 1902
NIST Light certificate	400520 8501
NIST CO <sup>2</sup> certificate	400520 0033
NIST Tachometer certificate	400520 6401