

Universal IAQ instrument

**testo 400 – the multitasker
for IAQ professionals**

Measures all IAQ-related parameters: Flow, temperature, humidity, pressure, illuminance, radiant heat, turbulence, CO₂ and CO

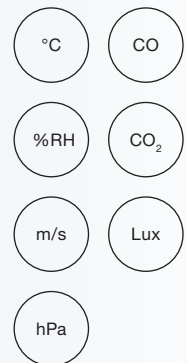
High-precision, location-independent and integrated differential pressure sensor

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 EN ISO 12599 and ASHRAE 111
- PMV/PPD in accordance with EN ISO 7730 and ASHRAE 55
- Draught and degree of turbulence in accordance with EN ISO 7730 and ASHRAE 55
- WBGT measurement in line with DIN 33403 and EN ISO 7243, NET measurement in accordance with DIN 33403



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. Your benefits:

- 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 high-precision measurements

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 pressure (integrated)	
Measuring range	-100 to +200 hPa
Accuracy (±1 digit)	±(0.3 Pa ± 1% of m.v.) (0 to 25 hPa) ±(0.1 hPa + 1.5% of m.v.) (25.001 to 200 hPa)
Resolution	0.001 hPa
Absolute pressure (integrated)	
Measuring range	700 to +1100 hPa
Accuracy (±1 digit)	±3 hPa
Resolution	0.1 hPa
Temperature NTC (with appropriate probe)	
Measuring range	-40 to +150 °C
Accuracy (±1 digit)	±0.2 °C (-25 to 74.9 °C) ±0.4 °C (-40 to -25.1 °C) ±0.4 °C (+75 to +99.9 °C) ±0.5% of m.v. (remaining meas. range)
Resolution	0.1 °C
Temperature TC type K (with appropriate probe)	
Measuring range	-200 to +1370 °C
Accuracy (±1 digit)	±(0.3 °C + 0.1% of m.v.)
Resolution	0.1 °C

General technical data	
Probe connections	4x Bluetooth®, 2x TUC*, 2x TC type K
Interfaces	Bluetooth®, WLAN, USB
Operating temperature	-5 to +45 °C
Storage temperature	-20 to +60 °C
Power supply	Rechargeable li-ion battery (5550 mAh)
Battery life	approx. 10 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	210 x 95 x 39 mm
Weight	510 g

*TUC connection (Testo Universal Connector): For the connection of fixed cable digital probes and NTC probes.

Ordering data

testo 400

testo 400 universal IAQ instrument, including transport case for volume flow measurement, testo DataControl software, connection hose, mains unit with USB cable and calibration protocol.



Order no. 0560 0400

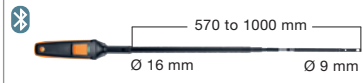
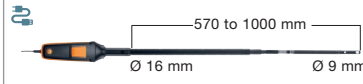
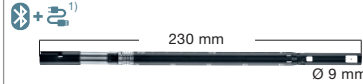
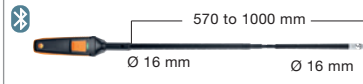
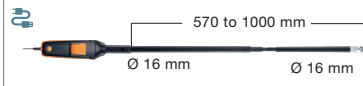










IAQ data logger

IAQ data logger for long-term measurements with the testo 400 including mains unit with USB cable and calibration protocol.



Order no. 0577 0400



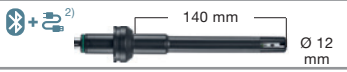


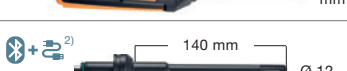

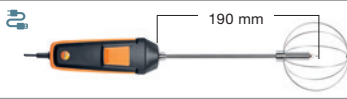


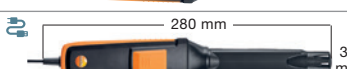






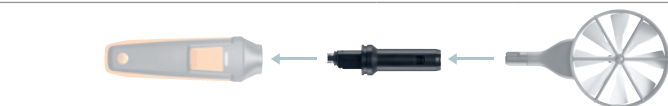
Digital flow probes

Probe type		Measuring range	Accuracy	Resolution	Order no.
Digital flow probes					
Hot wire probe with Bluetooth®, including temperature and humidity sensor		0 to 50 m/s -20 to +70 °C 5 to 95 %RH 700 to 1100 hPa	±(0.03 m/s + 4% of m.v.) (0 to 20 m/s) ±(0.5 m/s + 5% of m.v.) (20.01 to 30 m/s) ±0.5 °C (0 to +70 °C) ±0.8 °C (-20 to 0 °C) ±3.0 %RH (10 to 35 %RH) ³⁾ ±2.0 %RH (35 to 65 %RH) ³⁾ ±3.0 %RH (65 to 90 %RH) ³⁾ ±5 %RH (remaining meas. range) ³⁾ ±3 hPa	0.01 m/s 0.1 °C 0.1 %RH 0.1 hPa	0635 1571
Hot wire probe, fixed cable, including temperature and humidity sensor					0635 1572
Hot wire probe head, including temperature and humidity sensor					0635 1570
Vane probe (Ø 16 mm) with Bluetooth®, including temperature sensor		0.6 to 50 m/s -10 to +70 °C	±(0.2 m/s + 1% of m.v.) (0.6 to 40 m/s) ±(0.2 m/s + 2% of m.v.) (40.1 to 50 m/s) ±1.8 °C	0.1 m/s 0.1 °C	0635 9571
Vane probe (Ø 16 mm), fixed cable, including temperature sensor					0635 9572
Vane probe head (Ø 16 mm), including temperature sensor					0635 9570
Hot wire probe, fixed cable, including temperature sensor		0 to 30 m/s -20 to +70 °C 700 to 1100 hPa	±(0.03 m/s + 4% of m.v.) (0 to 20 m/s) ±(0.5 m/s + 5% of m.v.) (20.01 to 30 m/s) ±0.5 °C ±3 hPa	0.01 m/s 0.1 °C 0.1 hPa	0635 1032
Vane probe (Ø 16 mm), fixed cable					0635 9532
Fume cupboard probe, fixed cable (Measurement of flow velocity and volume flow at laboratory extractors based on DIN EN 14175-3/-4.)		0 to 5 m/s 0 to +50 °C 700 to 1100 hPa	±(0.02 m/s + 5% of m.v.) (0 to 5 m/s) ±0.5 °C ±3 hPa	0.01 m/s 0.1 °C 0.1 hPa	0635 1052
We recommend the extension kit (0554 0990) for measuring flows in ducts with a large cross-section. This enables the telescope to be extended to up to 2 m for all flow probes with an interchangeable handle.					
High-precision vane probe (Ø 100 mm) with Bluetooth®, including temperature sensor		0.1 to 15 m/s -20 to +70 °C	±(0.1 m/s + 1.5% of m.v.) (0.1 to 15 m/s) ±0.5 °C	0.01 m/s 0.1 °C	0635 9371
High-precision vane probe (Ø 100 mm), fixed cable, including temperature sensor					0635 9372
High-precision vane probe head (Ø 100 mm), including temperature sensor					0635 9370
Vane probe (Ø 100 mm) with Bluetooth®, including temperature sensor		0.3 to 35 m/s -20 to +70 °C	±(0.1 m/s + 1.5% of m.v.) (0.3 to 20 m/s) ±(0.2 m/s + 1.5% of m.v.) (20.01 to 35 m/s) ±0.5 °C	0.01 m/s 0.1 °C	0635 9431
Vane probe (Ø 100 mm), fixed cable, including temperature sensor					0635 9432
Vane probe head (Ø 100 mm), including temperature sensor					0635 9430
The telescope with 90° angle (0550 0960) has been developed for convenient ceiling measurements. It can easily be fitted onto the 100 mm vane probes.					

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

³⁾ 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.
Digital humidity probes					
Humidity/temperature probe with Bluetooth®		0 to 100 %RH -20 to +70 °C	±2 %RH (5 to 90 %RH) ³⁾ ±0.5 °C	0.1 %RH 0.1 °C	0636 9731
Humidity/temperature probe, fixed cable					0636 9732
Humidity/temperature probe head					0636 9730
High-precision humidity/temperature probe with Bluetooth®		0 to 100 %RH -20 to +70 °C	±(0.6 %RH + 0.7% of m.v.) (0 to 90 %RH) ³⁾ ±(1.0 %RH + 0.7% of m.v.) (90 to 100 %RH) ³⁾ ±0.3 °C (15 to 30 °C) ±0.5 °C (remaining meas. range)	0.01 %RH 0.1 °C	0636 9771
High-precision humidity/temperature probe, fixed cable					0636 9772
High-precision humidity/temperature probe head					0636 9770
Robust humidity/temperature probe for temperatures up to +180 °C, fixed cable		0 to 100 %RH -20 to +180 °C	±3 %RH (0 to 2 %RH) ³⁾ ±2 %RH (2.1 to 98 %RH) ³⁾ ±3 %RH (98.1 to 100 %RH) ³⁾ ±0.5 °C (-20 to 0 °C) ±0.4 °C (0.1 to +50 °C) ±0.5 °C (+50.1 to +180 °C)	0.1 %RH 0.1 °C	0636 9775
Digital comfort probes					
Turbulence probe, fixed cable		0 to +5 m/s 0 to +50 °C 700 to 1100 hPa	±(0.03 m/s + 4% of m.v.) (0 to 5 m/s) ±0.5 °C ±3 hPa	0.01 m/s 0.1 °C 0.1 hPa	0628 0152
Lux probe, fixed cable		0 to 100,000 lux	DIN 13032-1 Appendix B F1 = 6 % = V(Lambda) adjustment F2 = 5 % = cos-true evaluation Class C according to DIN 5032-7	0.1 lux (< 10,000 lux) 1 lux (≥ 10,000 lux)	0635 0551
CO ₂ probe with Bluetooth®, including temperature and humidity sensor		0 to 10,000 ppm CO ₂ 5 to 95 %RH 0 to +50 °C 700 to 1100 hPa	±(50 ppm + 3% of m.v.) (0 to 5,000 ppm) ±(100 ppm + 5% of m.v.) (5,001 to 10,000 ppm) ±3 %RH (10 to 35 %RH) ³⁾ ±2 %RH (35 to 65 %RH) ³⁾ ±3 %RH (65 to 90 %RH) ³⁾ ±5 %RH (remaining meas. range) ³⁾ ±0.5 °C ±3 hPa	1 ppm 0.1 %RH 0.1 °C 0.1 hPa	0632 1551
CO ₂ probe, fixed cable, including temperature and humidity sensor					0632 1552
CO ₂ probe head, including temperature and humidity sensor					0632 1550
CO probe with Bluetooth®		0 to 100 ppm 100.1 to 500 ppm	±3 ppm (0 to 30 ppm) ±5 ppm (30.1 to 100 ppm) ±10 % of m.v. (100.1 ... 500 ppm)	0.1 ppm	0632 1271
CO probe, fixed cable					0632 1272
CO probe head					0632 1270
Probe handles and adapters					
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

²⁾ For use with cable handle (order no. 0554 2222) or Bluetooth® handle (order no. 0554 1111).



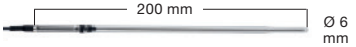

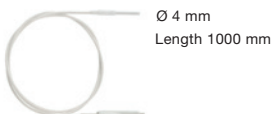
³⁾ Please see the additional accuracy information for humidity in the instruction manual.

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 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
testo 905i Thermometer with smartphone operation, including batteries and calibration protocol		-50 to +150 °C	± 1 °C	0.1 °C	0560 1905
testo 805i Infrared thermometer with smartphone operation, including batteries and calibration protocol		-30 to +250 °C	± 1.5 °C or $\pm 1.5\%$ of m.v. (0 to +250 °C) ± 2.0 °C (-20 to -0.1 °C) ± 2.5 °C (-30 to -20.1 °C)	0.1 °C	0560 1805
Humidity					
testo 605i Thermohygrometer with smartphone operation, including batteries and calibration protocol		0 to 100 %RH -20 to +60 °C	± 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) ³⁾ ± 0.8 °C (-20 to 0 °C) ± 0.5 °C (0 to +60 °C)	0.1 %RH 0.1 °C	0560 2605 02
Flow					
testo 405i Thermal anemometer with smartphone operation, telescopic tube extendable to up to 400 mm, including batteries and calibration protocol		0 to 30 m/s -20 to +60 °C	$\pm (0.1 \text{ m/s} + 5\% \text{ of m.v.})$ (0 to 2 m/s) $\pm (0.3 \text{ m/s} + 5\% \text{ of m.v.})$ (2 to 15 m/s) ± 0.5 °C	0.01 m/s 0.1 °C	0560 1405
testo 410i Vane anemometer with smartphone operation, including batteries and calibration protocol		0.4 to 30 m/s -20 to +60 °C	$\pm (0.2 \text{ m/s} + 2\% \text{ of m.v.})$ (0.4 to 20 m/s) ± 0.5 °C	0.1 m/s 0.1 °C	0560 1410
Pressure					
testo 510i 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) $\pm (0.2 \text{ hPa} + 1.5\% \text{ of m.v.})$ (1 to 150 hPa)	0.01 hPa	0560 1510
testo 549i 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

³⁾ Please see the additional accuracy information for humidity in the instruction manual.

Digital temperature probes

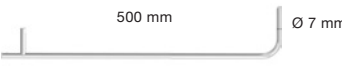
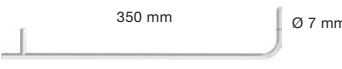



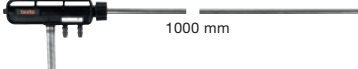
Probe type		Measuring range	Accuracy	Resolution	Order no.
Digital temperature probes					
High-precision digital Pt100 penetration probe for measurements in liquids and pastes with an accuracy of up to $\pm 0.05^\circ\text{C}$	 295 mm $\varnothing 4$ mm	-80 to $+300^\circ\text{C}$	$\pm 0.3^\circ\text{C}$ (-80 to -40.001°C) $\pm (0.1^\circ\text{C} + 0.05\% \text{ of m.v.})$ (-40 to -0.001°C) $\pm 0.05^\circ\text{C}$ (0 to $+100^\circ\text{C}$) $\pm (0.05^\circ\text{C} + 0.05\% \text{ of m.v.})$ ($+100.001$ to $+300^\circ\text{C}$)	0.001°C	0618 0275
Digital Pt100 penetration probe for measurements in liquids and pastes	 200 mm $\varnothing 3$ mm	-100 to $+400^\circ\text{C}$	$\pm (0.15^\circ\text{C} + 0.2\% \text{ of m.v.})$ (-100 to -0.01°C) $\pm (0.15^\circ\text{C} + 0.05\% \text{ of m.v.})$ (0 to $+100^\circ\text{C}$) $\pm (0.15^\circ\text{C} + 0.2\% \text{ of m.v.})$ ($+100.01$ to $+350^\circ\text{C}$) $\pm (0.5^\circ\text{C} + 0.5\% \text{ of m.v.})$ ($+350.01$ to $+400^\circ\text{C}$)	0.01°C	0618 0073
Glass-coated digital Pt100 laboratory probe for measurements in corrosive media	 200 mm $\varnothing 6$ mm	-50 to $+400^\circ\text{C}$	$\pm (0.3^\circ\text{C} + 0.3\% \text{ of m.v.})$ (-50 to $+300^\circ\text{C}$) $\pm (0.4^\circ\text{C} + 0.6\% \text{ of m.v.})$ ($+300.01$ to $+400^\circ\text{C}$)	0.01°C	0618 7072
Robust, fast-reaction, digital Pt100 air probe	 200 mm $\varnothing 4$ mm	-100 to $+400^\circ\text{C}$	$\pm (0.15^\circ\text{C} + 0.2\% \text{ of m.v.})$ (-100 to -0.01°C) $\pm (0.15^\circ\text{C} + 0.05\% \text{ of m.v.})$ (0 to $+100^\circ\text{C}$) $\pm (0.15^\circ\text{C} + 0.2\% \text{ of m.v.})$ ($+100.01$ to $+350^\circ\text{C}$) $\pm (0.5^\circ\text{C} + 0.5\% \text{ of m.v.})$ ($+350.01$ to $+400^\circ\text{C}$)	0.01°C	0618 0072
Flexible digital Pt100 temperature probe for measurements in locations that are difficult to access and in liquids	 $\varnothing 4$ mm Length 1000 mm	-100 to $+260^\circ\text{C}$	$\pm (0.3^\circ\text{C} + 0.3\% \text{ of m.v.})$	0.01°C	0618 0071

Analog probes

Probe type	Probe shaft/probe shaft tip dimensions	Measuring range	Accuracy	t ₉₉	Order no.
Thermoelectric couples					
Thermoelectric couple with TC plug, flexible, length 800 mm, glass fibre, TC type K	 800 mm Ø 1.5 mm	-50 to +400 °C	Class 2 ¹⁾	5 sec	0602 0644
Thermoelectric couple with TC plug, flexible, length 1500 mm, glass fibre, TC type K	 1500 mm Ø 1.5 mm	-50 to +400 °C	Class 2 ¹⁾	5 sec	0602 0645
Thermoelectric couple with TC plug, flexible, length 1500 mm, PTFE, TC type K	 1500 mm Ø 1.5 mm	-50 to +250 °C	Class 2 ¹⁾	5 sec	0602 0646
Comfort probe					
Globe thermometer Ø 150 mm, TC type K, for measuring radiant heat		0 to +120 °C	Class 1 ¹⁾		0602 0743
WBGT kit for testo 400					
WBGT kit (Wet Bulb Globe Temperature) for evaluating workplaces with heat immission based on ISO 7243 and DIN 33403-3, incl. transport case and tripod		Globe thermometer Ø 150 mm (TC Type K)	0 to +120 °C	Class 1 ¹⁾	0618 7220
		Ambient temperature probe (Pt100)	+10 to +60 °C	±(0.3 °C + 0.3 % of m.v.)	
		Wet bulb temperature probe (Pt100)	+5 to +40 °C	±(0.3 °C + 0.3 % of m.v.)	













¹⁾ 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.

Pitot tubes

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

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

Accessories

Accessories for comfort 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 digital flow probes		Order no.
	Extendable telescope for testo 400 / 440 flow probes (37.5 to 100 cm including 90° angle)	0554 0960
	Telescope extension (0.9 m) for testo 400 / 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
Other accessories		Order no.
	Transport case for air flow measurement (520 x 410 x 160 mm)	0516 1400
	Transport case for IAQ and comfort level measurement (520 x 410 x 210 mm)	0516 2400
	testovent 417 funnel kit comprising funnel for plate outlets (Ø 200 mm) and funnel for fans (330 x 330 mm) for incoming / outgoing air	0563 4170
	testovent 417 volume flow straightener	0554 4172
	USB mains unit, including cable	0554 1106
	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 kit for Testo humidity probes, saline solution with 11.3 %RH and 75.3 %RH, including adapter for Testo humidity probes	0554 0660