

VAC analysis measuring instrument

**testo 480 - Cutting-edge
technology for professionals**

Measurement of all VAC-relevant parameters: flow velocity, temperature, humidity, pressure, light intensity, radiant heat, degree of turbulence, CO₂, PMV/PPD and WBGT index

High-quality, digital probes and intelligent calibration concept

Highly accurate, integrated differential pressure sensor

Fast and professional report creation via PC software „EasyClimate“

Integrated, guided measurement programs:

- VAC grid measurement according to EN 12599
 - PMV/PPD measurement according to ISO 7730
 - degree of turbulence measurement according to EN 13779
 - WBGT-measurement based on ISO 7243 / DIN 33403
-



testo 480 supports assessors, consultants, technical service providers or service technicians in the ventilation and air conditioning field. Measurement tasks such as the standardized adjustment of VAC systems in office, residential and industrial buildings can be carried out quickly and efficiently.

The VAC measuring instrument is equipped with intelligent digital probes with integrated memories. The probes inform the instrument as soon as the next calibration is due.

The calibration data are entered via the software and are then permanently stored in the probe. This compensates deviations automatically, producing a zero-error display. The possibility of having the probes calibrated without the hand instrument ensures the uninterrupted use of the instrument. With the testo 480, professionals can detect negative environmental influences such as draughts, ensuring a climate of well-being, for example in open-plan offices, and sustainably reducing costs.

Technical data

testo 480

High-end VAC measuring instrument testo 480, including "EasyClimate" PC software, power supply, USB cable and calibration protocol

Part no. 0563 4800

£ 1003.00



Comfort measurement

- High-end VAC measuring instrument testo 480 incl. PMV/PPD measurement (Part no. 0563 4800)
- Comfort probe for degree of turbulence measurement according to EN 13779 (Part no. 0628 0143)*
- Globe probe Ø 150mm, TC Type K, for measuring radiant heat (Part no. 0602 0743)
- IAQ probe for analyzing Indoor Air Quality, CO₂, humidity, temperature and absolute pressure measurement, incl. table tripod (Part no. 0632 1543)*
- Lux probe for measuring light intensity (Part no. 0635 0543)
- Plug-in head cable for digital probes (Part no. 0430 0100)
- Tripod for workplace evaluation (Part no. 0554 0743)
- System case for comfort level measurement (Part no. 0516 4801)

*Plug-in head cable required (order no. 0430 0100)

£ 3856.02

General technical data

Probe connection	2 x TC Type K, 1 x differential pressure, 3 x digital
Interfaces	USB connection, SD card, mains unit, infrared for fast printer
Operating temperature	0 to +40 °C
Power supply	Rechargeable battery, plug-in mains unit for long-term measurements and charging battery
Battery life	approx. 17 hours (hand instrument without probes, with 50 % display brightness)
Display	Colour graphic display
Memory	1.8 GB (approx. 60000000 measurement values)

HVAC measurement

- High-end VAC measuring instrument testo 480 incl. PMV/PPD measurement (Part no. 0563 4800)
- Vane measurement probe Ø 16 mm with telescope (scaling max. 960 mm) and integrated measurement button (Part no. 0635 9542)*
- Thermal flow velocity probe (hot wire) Ø 10 mm, bendable by 90° (200 mm) with telescope (scaling max. 1100 mm) and integrated measurement button (Part no. 0635 1543)*
- Humidity and temperature probe Ø 12 mm, highly accurate humidity measurement with 1% accuracy (Part no. 0636 9743)*
- Vane measurement probe Ø 100 mm, for measurements on ventilation outlets (Part no. 0635 9343)*
- Plug-in head cable for digital probes (Part no. 0430 0100)
- System case for HVAC measurements (Part no. 0516 4800)










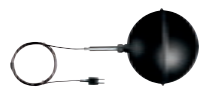


*Plug-in head cable required (order no. 0430 0100)

£ 3415.02

Technical data


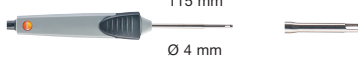

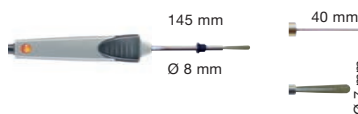
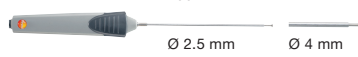


Sensor type	Differential pressure, integrated	Absolute pressure, integrated and external	Type K (NiCr-Ni)
Measuring range	-100 to +100 hPa	700 to 1100 hPa	-200 to +1370 °C
Accuracy ±1 digit	±(0.3 Pa +1% of mv) (0 to +25 hPa) ±(0.1 hPa + 1.5% of mv) (+25.001 to +100 hPa)	±3 hPa	±(0.3 °C +0.1% of mv)
Resolution	0.001 hPa	0.1 hPa	0.1 °C
Sensor type	Radiation temperature, globe	Pt100	Vane, 16 mm
Measuring range	0 to +120 °C	-100 to +400 °C	+0.6 to +50 m/s
Resolution	0.1 °C	0.01 °C	0.1 m/s
Sensor type	Vane, 100 mm	Hot wire, Hot bulb	Comfort probe
Measuring range	+0.1 to +15 m/s	0 to +20 m/s	0 to +5 m/s
Resolution	0.01 m/s	0.01 m/s	0.01 m/s
Sensor type	Testo humid. sensor, cap.	CO ₂	Lux
Measuring range	0 to 100 %RH	0 to 10000 ppm CO ₂	0 to 100000 Lux
Resolution	0.1 %RH	1 ppm CO ₂	1 Lux

Probes

Probe type		Measuring range	Accuracy ± 1 digit	Part no. £
Digital flow velocity probes				
Vane measurement probe \varnothing 16 mm with telescope (scaling max. 960 mm) and integrated measurement button*		+0.6 to +50 m/s -10 to +70 °C	$\pm(0.2 \text{ m/s} + 1\% \text{ of m.v.})$ 0.6 - 40 m/s $\pm(0.2 \text{ m/s} + 2\% \text{ of m.v.})$ 40.1 - 50 m/s $\pm 1.8 \text{ }^\circ\text{C}$	0635 9542 582.00
Thermal flow velocity probe (hot wire) \varnothing 10 mm, bendable by 90° (200 mm) with telescope (scaling max. 1100 mm) and integrated measurement button*		0 to +20 m/s -20 to +70 °C 0 to 100 %RH +700 to +1100 hPa	$\pm(0.03 \text{ m/s} + 4\% \text{ of m.v.})$ $\pm 0.5 \text{ }^\circ\text{C}$ $\pm(1.8 \text{ \%RH} + 0.7\% \text{ of m.v.})$ $\pm 3 \text{ hPa}$	0635 1543 502.00
Thermal flow velocity probe (hot wire) \varnothing 7.5 mm, with telescope (max. 790 mm) and fixed plug-in head cable		0 to +20 m/s -20 to +70 °C	$\pm(0.03 \text{ m/s} + 5\% \text{ of m.v.})$ $\pm 0.5 \text{ }^\circ\text{C}$	0635 1024 497.00
Thermal flow velocity probe (robust hot bulb) \varnothing 3 mm, with telescope, (max. 860 mm) and fixed plug-in head cable, for direction-independent flow velocity measurement		0 to +10 m/s -20 to +70 °C	$\pm(0.03 \text{ m/s} + 5\% \text{ of m.v.})$ $\pm 0.5 \text{ }^\circ\text{C}$	0635 1050 521.00
Vane measurement probe \varnothing 100 mm, for measurements on ventilation outlets*		+0.1 to +15 m/s 0 to +60 °C	$\pm(0.1 \text{ m/s} + 1.5\% \text{ of m.v.})$ $\pm 0.5 \text{ }^\circ\text{C}$	0635 9343 602.00
Thermal flow velocity probe (hot wire) \varnothing 10 mm, with telescope, (max. 730 mm) and fixed plug-in head cable, for the measurement of air flow velocity in laboratory extractors according to EN 14175-3/-4		0 to +5 m/s 0 to +50 °C	$\pm(0.02 \text{ m/s} + 5\% \text{ of m.v.})$ $\pm 0.5 \text{ }^\circ\text{C}$	0635 1048 613.00
Digital comfort probes				
Humidity and temperature probe \varnothing 12 mm, highly accurate humidity measurement with 1% accuracy*		0 to 100 %RH -20 to +70 °C	$\pm(1.0 \text{ \%RH} + 0.7\% \text{ of m.v.})$ 0 to 90 %RH $\pm(1.4 \text{ \%RH} + 0.7\% \text{ of m.v.})$ 90 to 100 %RH $\pm 0.2 \text{ }^\circ\text{C}$ (+15 to +30 °C) $\pm 0.5 \text{ }^\circ\text{C}$ (remaining range)	0636 9743 382.00
IAQ probe for analyzing Indoor Air Quality, CO ₂ , humidity, temperature and absolute pressure measurement, incl. table tripod*		0 to +50 °C 0 to 100 %RH 0 to +10000 ppm CO ₂ +700 to +1100 hPa	$\pm 0.5 \text{ }^\circ\text{C}$ $\pm(1.8 \text{ \%RH} + 0.7\% \text{ of m.v.})$ $\pm(75 \text{ ppm CO}_2 \pm 3\% \text{ of m.v.})$ 0 to +5000 ppm CO ₂ $\pm(150 \text{ ppm CO}_2 \pm 5\% \text{ of m.v.})$ 5001 to +10000 ppm CO ₂ $\pm 3 \text{ hPa}$	0632 1543 902.00
Comfort probe for degree of turbulence measurement according to EN 13779*		0 to +50 °C 0 to +5 m/s +700 to +1100 hPa	$\pm 0.5 \text{ }^\circ\text{C}$ $\pm(0.03 \text{ m/s} + 4\% \text{ of m.v.})$ $\pm 3 \text{ hPa}$	0628 0143 612.00
Globe probe \varnothing 150mm, TC Type K, for measuring radiant heat		0 to +120 °C	Class 1	0602 0743 452.00
Lux probe for measuring light intensity		0 to +100000 Lux	Class C according to DIN 5032-7; f1 = 6% V-Lambda; f2 = 5% cos	0635 0543 302.00
WBGT set (Wet Bulb Globe Temperature) for the evaluation of heat workplaces affected by heat, based on ISO 7243 / DIN 33403-3, consisting of globe, ambient temperature and wet bulb temperature probes, plug-in head cables, tripod and case		0 to +120 °C +10 to +60 °C +5 to +40 °C	Class 1 $\pm(0.25 \text{ }^\circ\text{C} + 0.3\% \text{ of m.v.})$ $\pm(0.25 \text{ }^\circ\text{C} + 0.3\% \text{ of m.v.})$	0635 8888 POA ID no. 0699 6920/1


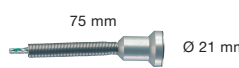
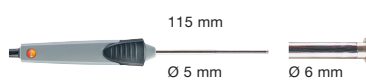


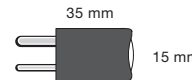

*Plug-in head cable required (order no. 0430 0100)

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no. £
More digital probes					
High-precision Pt100 immersion and penetration probe, Plug-in head cable required (order no. 0430 0100)	 200 mm Ø 3 mm	0 to +400 °C	±(0.15 °C + 0.05% of m.v.) (0 to 100 °C) ±(0.15 °C + 0.2% of m.v.) (100.01 to 350 °C) ±(0.5 °C + 0.5% of m.v.) (350.01 to 400 °C)		0614 0073 429.00
Special versions of the Pt100 probe on request (e.g. as a surface probe or air probe, probe shaft extended, strengthened)					POA
Adapter cable for connecting analog Pt100 probe to testo 480					POA
Air probes					
Robust air probe, T/C Type K, Fixed cable	 115 mm Ø 4 mm	-60 to +400 °C	Class 2 ¹⁾	25 s	0602 1793 47.83
Surface probes					
Fast-action surface probe with sprung thermocouple strip, also for uneven surfaces, measurement range short-term to +500°C, TC Type K, Fixed cable	 115 mm Ø 5 mm Ø 12 mm	-60 to +300 °C	Class 2 ¹⁾	3 s	0602 0393 98.39
Fast-reaction paddle surface probe, for measurements in inaccessible places, e.g. narrow apertures and slots, TC Type K, Fixed cable	 145 mm Ø 8 mm 40 mm Ø 7 mm	0 to +300 °C	Class 2 ¹⁾	5 s	0602 0193 105.00
Efficient, waterproof surface probe with small measurement head for flat surfaces, TC Type K, Fixed cable	 150 mm Ø 2.5 mm Ø 4 mm	-60 to +1000 °C	Class 1 ¹⁾	20 s	0602 0693 89.25
Fast-action surface probe with sprung thermocouple strip, bent, also for uneven surfaces, measurement range short-term to +500°C, TC Type K, Fixed cable	 80 mm Ø 5 mm 50 mm Ø 12 mm	-60 to +300 °C	Class 2 ¹⁾	3 s	0602 0993 120.00
Flat head surface probe with telescopic handle max. 680 mm for measurements at hard-to-access points, TC Type K, Fixed cable 1.6 m (correspondingly shorter when telescope extended)	 680 mm 12 mm Ø 25 mm	-50 to +250 °C	Class 2 ¹⁾	3 s	0602 2394 272.00

¹⁾ 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 always corresponds to only **one** accuracy class.

Probes


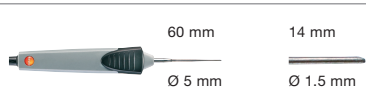
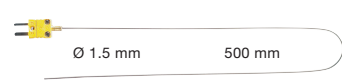
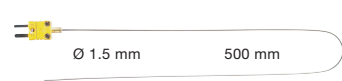

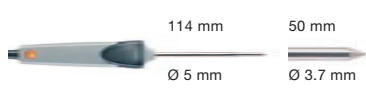





Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no. £
Surface probes					
Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K, Fixed cable		-50 to +170 °C	Class 2 ¹⁾	150 s	0602 4792 192.00
Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K, Fixed cable		-50 to +400 °C	Class 2 ¹⁾		0602 4892 204.00
Waterproof surface probe with widened measurement tip for flat surfaces, T/C Type K, Fixed cable		-60 to +400 °C	Class 2 ¹⁾	30 s	0602 1993 46.94
Pipe wrap probe with velcro strip; for temperature measurement on pipes with diameter up to max. 120 mm; Tmax. +120 °C; TC Type K, Fixed cable		-50 to +120 °C	Class 1 ¹⁾	90 s	0628 0020 44.73
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term up to +280°C, TC Type K, Fixed cable		-60 to +130 °C	Class 2 ¹⁾	5 s	0602 4592 123.00
Spare meas. head for pipe wrap probe, TC Type K		-60 to +130 °C	Class 2 ¹⁾	5 s	0602 0092 41.58
Clamp probe for measurements on pipes, pipe diameter 15 to 25 mm (max. 1"), meas. range short-term up to +130°C, TC Type K, Fixed cable		-50 to +100 °C	Class 2 ¹⁾	5 s	0602 4692 52.29

¹⁾ 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 always corresponds to only **one** accuracy class.

Information on surface measurement:

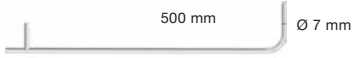
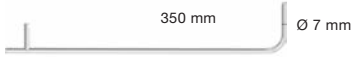
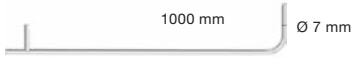
- The response times t₉₉ stated are measured on ground steel or aluminium plates at +60 °C.
- The stated accuracies are sensor accuracies.
- The accuracy in your application is dependent on the surface structure (roughness), material of the measurement object (heat capacity and heat transfer), as well as sensor accuracy. Testo creates a corresponding calibration certificate for the deviations of your measurement system in your application. For this purpose, Testo uses a surface test bench developed in cooperation with the PTB (Physikalisch Technische Bundesanstalt).

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no. £
Immers./penetr. probes					
Efficient and fast-action immersion probe, waterproof, TC Type K, Fixed cable		-60 to +1000 °C	Class 1 ¹⁾	2 s	0602 0593 81.00
Fast-action, waterproof immersion/penetration probe, TC Type K, Fixed cable		-60 to +800 °C	Class 1 ¹⁾	3 s	0602 2693 101.00
Immersion tip, flexible, TC Type K		-200 to +1000 °C	Class 1 ¹⁾	5 s	0602 5792 30.77
Immersion tip, flexible, TC Type K		-200 to +40 °C	Class 3 ¹⁾	5 s	0602 5793 31.40
Immersion measurement tip, flexible, for measurements in air/exhaust gases (not suitable for measurements in smelters), TC Type K		-200 to +1300 °C	Class 1 ¹⁾	4 s	0602 5693 39.06
Waterproof immersion/penetration probe, TC Type K, Fixed cable		-60 to +400 °C	Class 2 ¹⁾	7 s	0602 1293 32.55
Flexible, low-mass immersion measurement tip, ideal for measurements in small volumes such as petri dishes, or for surface measurements (e.g. attached with adhesive tape), TC Type K, 2 m, FEP insulated thermal wire, temperature proof up to 200 °C, oval wire with dimensions: 2.2 mm x 1.4 mm		-200 to +1000 °C	Class 1 ¹⁾	1 s	0602 0493 130.00
Waterproof food probe made of stainless steel (IP65), TC Type K, Fixed cable		-60 to +400 °C	Class 2 ¹⁾	7 s	0602 2292 95.13
Thermocouples					
Thermocouple with TC adapter, flexible, 800 mm long, fibre glass, TC Type K		-50 to +400 °C	Class 2 ¹⁾	5 s	0602 0644 18.19
Thermocouple with TC adapter, flexible, length 1500 mm, fibreglass, TC Type K		-50 to +400 °C	Class 2 ¹⁾	5 s	0602 0645 32.10
Thermocouple with TC adapter, flexible, 1500 mm long, PTFE, TC Type K		-50 to +250 °C	Class 2 ¹⁾	5 s	0602 0646 32.10

¹⁾ 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 always corresponds to only **one** accuracy class.

Probes

Probe type	Dimensions Probe shaft/probe shaft tip			Part no. £
Pitot tubes				
Pitot tube, 500 mm long, Ø 7 mm, stainless steel, for measuring flow velocity*	 <p>500 mm Ø 7 mm</p>	Operating temperature 0 to +600 °C		0635 2045 118.00
Pitot tube, 350 mm long, Ø 7 mm, stainless steel, for measuring flow velocity*	 <p>350 mm Ø 7 mm</p>	Operating temperature 0 to +600 °C		0635 2145 114.00
Pitot tube, 1000 mm long, stainless steel, for measuring flow velocity*	 <p>1000 mm Ø 7 mm</p>	Operating temperature 0 to +600 °C		0635 2345 333.00

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

Accessories

Accessories for measuring instrument	Part no.	£
Tripod for workplace evaluation With holders for hand-held instrument and probe. Can also be used as telescope extension	0554 0743	241.00
Plug-in head cable for digital probes	0430 0100	42.02
testovent 410, volume flow funnel, Ø 340 mm/330x330 mm, incl. case	0554 0410	201.00
testovent 415, volume flow funnel, Ø 210 mm/210x210 mm, incl. case	0554 0415	191.00
testovent 417 funnel set for plate outlets (Ø 200 mm) and funnel for ventilator (330 x 330 mm) for ingoing and outgoing air	0563 4170	140.00
Flow straightener testovent 417	0554 4172	84.57
Control and adjustment set for Testo humidity probes, salt solution with 11.3% RH and 75.3% RH, incl. adapter for Testo humidity probes	0554 0660	213.00
Connection hose; silicone; 5 m long; max. load 700 hPa (mbar)	0554 0440	38.12
Connection hose silicone-free for differential pressure measurement, length 5 m, load up to maximum 700 hPa, (mbar)	0554 0453	44.00

Transport and Protection

System case for comfort level measurement For instrument, probes and other accessories	0516 4801	302.00
System case for HVAC measurements, For instrument, probes and other accessories	0516 4800	302.00

Printer and Accessories

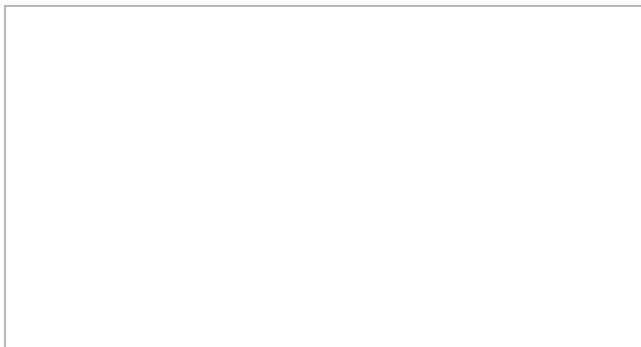
Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries for printing out measurements on site	0554 0549	171.00
Spare thermal paper for printer (6 rolls), permanent ink, measurement data documentation legible for up to 10 years	0554 0568	19.49

Calibration Certificates

ISO calibration certificate/temperature for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001	122.37
DAkkS calibration certificate/temperature; meas. instr. with air/immersion probe; calibration points -20 °C; 0 °C; +60 °C	0520 0211	562.73
ISO calibration certificate humidity; Calibration points 11.3 %RH and 75.3 %RH at +25 °C	0520 0006	151.16
DAkkS calibration certificate/humidity; electronic hygrometers; calibration points 11.3%RH and 75.3%RH at +25°C	0520 0206	526.93
ISO calibration certificate pressure; differential pressure, accuracy 0.1 to 0.6 (% of fsv)	0520 0025	132.11
ISO calibration certificate velocity; hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004	179.96
ISO calibration certificate velocity; hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034	179.96
ISO calibration certificate/light; Calibration points 0; 500; 1000; 2000; 4000 Lux	0520 0010	179.96
ISO calibration certificate/CO ₂ ; CO ₂ probes; calibration points 0; 1000; 5000 ppm	0520 0033	165.56
More calibration certificates on request		

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Subject to change without notice.
All prices are net and valid until 31.12.2014.
Shipping costs & VAT not included.



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