



Multi-Function Measuring Instruments



°C

%RH

m/s

hPa

CO₂

Lux

CO

aW

rpm

mA

V

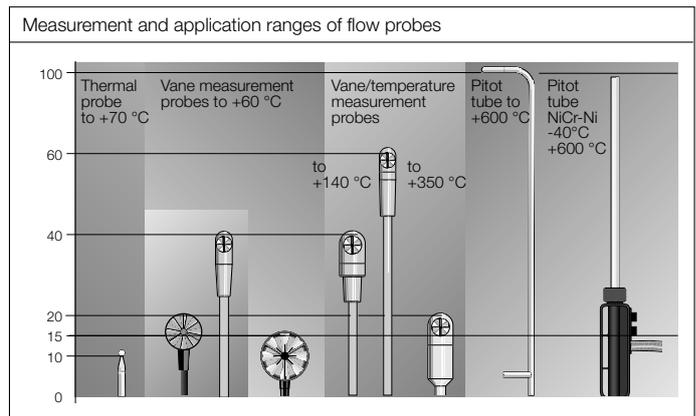
Measurement and application ranges of flow probes

Probe selection

The flow measurement range 0 to 100 m/s can be divided into three sections:

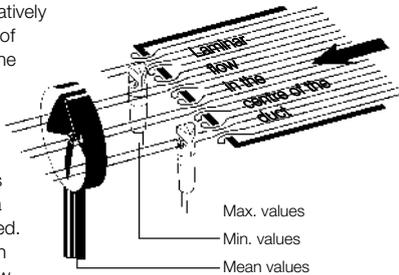
- Low-speed velocity 0 to 5 m/s
- Mid-speed velocity 5 to 40 m/s
- High-speed velocity 40 to 100 m/s.

Thermal probes are used for accurate measurements in the range 0 to 5 m/s. Vane probes are ideal for velocities from 5 to 40 m/s. The measuring range of the Pitot tube depends on the differential pressure probe used. The new 100 Pa probe can therefore be used for the exact measurement of flow speed from approx. 1 m/s to 12 m/s. The Pitot tube yields optimum results in the higher velocity range. An additional criterion when selecting the right velocity probe is the temperature. Thermal sensors can normally be used at up to approx. +70 °C. Special design vane probes can be used to maximum +350 °C. Pitot tubes are used for temperatures above +350 °C.



Supply/Returns

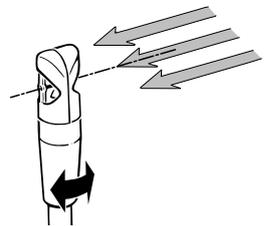
The air vent greatly changes the relatively uniform flow inside the duct. Areas of higher flow velocity are created at the free vent surfaces and areas of low flow velocity and swirl at the grids. The flow profile steadies at a distance from the the grid depending on the grid design but is usually 20 cm. For best accuracy, a large diameter vane is recommended. The area of the vane helps to get an average reading of the turbulent flow from the grid.



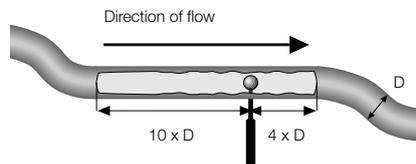
Positioning in air current

The vane probe is set exactly if the flow direction is parallel to the vane axis. If the measuring probe is turned slightly in the air current, the value shown in the instrument changes. The measuring probe is positioned exactly in the air current if the value shown is at max.

When measuring in a duct there should also be a minimum of ten diameters of straight run before the measuring spot and four diameters of straight run after the spot for best results. By design, vanes are less influenced by turbulence than thermal probes or Pitot tubes.



Site selection



You should measure in a straight part of the duct, if possible. The duct part should have a minimum of ten diameters of straight run before the measuring spot and four diameters of straight run after the measuring spot. The flow profile should not be interrupted in any way by flaps, dips, angles etc.

Measurements at suction apertures using a volume flow funnel

Even without the disturbing effects of a grid in an aperture, the lines of flow are not directional and the flow profile is irregular. Because a partial vacuum in the duct draws air out of the room in a funnel shape even a short distance from the aperture, there is no defined area in the room over which a measurement could be made. Therefore, only the duct or funnel measurement yields reproducible results. Measuring funnels of various sizes are available for such applications. These create defined flow conditions at a known distance from the grid with a fixed volume. A velocity probe is positioned centrally and secured. The volume flow is calculated from the velocity multiplied by the funnel factor (e.g. funnel factor 22).

Flow measurement in ducts

As part of approval measurements, indirect measuring procedures (grid measurements) are used to measure air flows.

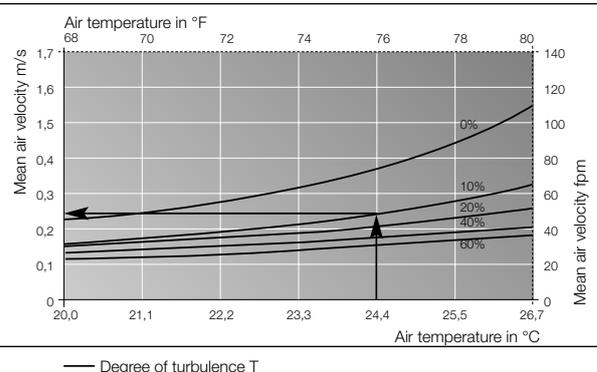
The following procedures are suggested in VDI 2080/EN 12599:

- Trivial procedure for grid measurements in square cross-sections.
- Centroidal axis procedures for grid measurements in circular cross-sections
- Loglinear procedure for grid measurements in circular cross sections.

Measuring ambient air velocity using testo 400 in accordance with DIN 1946 Part 2, ANSI/Ashrae 55-1992

Ambient air velocity is a very important parameter in the thermal comfort of people in rooms. testo 400 supplies the current and mean air velocities. The maximum permissible mean air velocity depends on the air temperature measured by testo 400 and the amount of turbulence calculated from the air velocity. The example shows a permissible mean air velocity of 0.26 m/s with an air temperature measured at 24.4 °C and an automatically calculated degree of turbulence of 10 %.

Ambient air velocity





Contents

Measuring instruments

Practical multi-function measuring instrument

testo 435-1/-2/-3/-4	All-rounder for ventilation and indoor air quality	Page 4
----------------------	--	--------

Measurement systems

testo 445	Service instrument for ventilation/air conditioning systems	Page 8
testo 400	The reference measuring instrument for A/C and ventilation systems	Page 13

Accessories

Software and Accessories		Page
ComSoft 3 - Professional	Professional Software including Data Filing	24
Printer		Page
Testo fast printer	Versatile infrared printer for testo 435, 445, 400	26
Ethernet adapter		Page
Ethernet adapter	Access Ethernet with Testo measuring instruments	27

testo 435

All-round talent for ventilation and Indoor Air Quality

All measurement parameters for air conditioning

The testo 435 provides the possibility of analysing the indoor air. On the one hand, this serves as an indicator for the well-being of people at their workplaces, and on the other hand as an important and deciding factor in storage and production processes.

In addition to this, the Indoor Air Quality signals whether the air conditioning system (HVAC) is working with as much energy economy as possible, or whether it needs to be adjusted with the help of testo 435.

The parameters CO₂, relative humidity and room temperature are available for evaluating the quality of the air. Absolute pressure, draught, Lux, U-value and surface temperature can additionally be determined. In order to determine the volume flow, all the possibilities of flow velocity measurement are available, such as thermal probes, vane anemometers and Pitot tubes.

Versatility with wireless probes

In addition to classical probes on wires, a wireless measurement up to a distance of 20 m (without obstruction) is possible. Damage to the wire or hindrances in usage are thus eliminated. A maximum of three wireless probes can be recorded and displayed with testo 435. The wireless probes are for the measurement parameters temperature and, depending on the instrument type, humidity. The optional, easily plugged-in radio module can be retrofitted at any time.

Common product advantages testo 435

- Wide selection of probes (optional):
 - IAQ probe for evaluating the indoor air quality via CO₂, air temperature, indoor air humidity and absolute pressure
 - Thermal probe with integrated temperature and air humidity measurement
 - Vane and hot wire probes
 - Radio probes for temperature
- Easy operation with user profiles
- Printout on the testo fast printer (optional)

Further product advantages of the variants

- Integrated differential pressure measurement (435-3/-4, not retrofittable)
 - for flow measurement
 - for monitoring filters
- Extended instrument function (435-2/-4, not retrofittable)
 - Instrument store for 10,000 readings
 - PC software for analysing, archiving and documenting measurement data
 - Humidity probes with radio or wire (optional)
 - Lux probe connection possible
 - Comfort level probe connection possible
 - Possibility of connecting U-value probe



testo 435-1

testo 435-1, multi-functional meas. instr., for A/C, ventilation and Indoor Air Quality, with battery and calibration protocol

Part no.
0560 4351

testo 435-2

testo 435-2, multi-functional measuring instrument for A/C, ventilation and Indoor Air Quality with readings memory, PC software and USB data transmission cable, incl. battery and calibration protocol

Part no.
0563 4352

testo 435-3

testo 435-3, multi-functional measuring instrument with built-in differential pressure measurement for air conditioning, ventilation and Indoor Air Quality, with battery and calibration protocol

Part no.
0560 4353

testo 435-4

testo 435-4, multi-functional meas. instr. with built-in differential pressure measurement for A/C, ventilation and Indoor Air Quality with readings memory, PC software and USB data transmission cable, with battery and calibration protocol

Part no.
0563 4354

435-1/-2/-3/-4
IAQ probes

IAQ probe to assess Indoor Air Quality, CO₂, humidity, temperature and absolute pressure measurement, with desk-top stand



Meas. range	Accuracy	Part no.
0 to +50 °C 0 to +100 %RH 0 to +10000 ppm CO ₂ +600 to +1150 hPa ²	±0.3 °C ±2 %RH (+2 to +98 %RH) ±(50 ppm CO ₂ ±2% of mv) (0 to +5000 ppm CO ₂) ±(100 ppm CO ₂ ±3% of mv) (+5001 to +10000 ppm CO ₂) ±3 hPa	0632 1535

Ambient CO probe, for detecting CO in buildings and rooms



Meas. range	Accuracy	Part no.
0 to +500 ppm CO	±5% of mv (+100.1 to +500 ppm CO) ±5 ppm CO (0 to +100 ppm CO)	0632 1235

Flow velocity probes

Thermal velocity probe with built-in temperature and humidity measurement, Ø 12 mm, with telescopic handle (max. 745 mm)



Meas. range	Accuracy	Part no.
-20 to +70 °C 0 to +100 %RH 0 to +20 m/s	±0.3 °C ±2 %RH (+2 to +98 %RH) ±(0.03 m/s +4% of mv)	0635 1535

Vane meas. probe, 16 mm diameter, with telescopic handle max. 890 mm, e.g. for meas. in ducts, can be used from 0 to +60 °C



Meas. range	Accuracy	Part no.
Oper. temp. +0.6 to +40 m/s 0 to +60 °C	±(0.2 m/s +1.5% of mv)	0635 9535

Vane meas. probe, 60 mm diameter, with telescopic handle max. 910 mm, e.g. for meas. at duct exit, can be used from 0 to +60 °C



Meas. range	Accuracy	Part no.
Oper. temp. +0.25 to +20 m/s 0 to +60 °C	±(0.1 m/s +1.5% of mv)	0635 9335

Hot wire probe for m/s and °C, Ø probe head 7.5 mm, with telescopic handle (max. 820 mm)



Meas. range	Accuracy	Part no.
0 to +20 m/s -20 to +70 °C	±(0.03 m/s +5% of mv) ±0.3 °C (-20 to +70 °C)	0635 1025

Funnel measurement

Vane meas. probe, 100 mm diameter, for measurements with funnel set 0563 4170



Meas. range	Accuracy	Part no.
+0.3 to +20 m/s 0 to +50 °C	±(0.1 m/s +1.5% of mv) ±0.5 °C	0635 9435

Funnel set consisting of funnel for disc outlets (Ø 200) and funnel for ventilator (330 x 330 mm) for in- and outgoing air



0563 4170

Absolute pressure probes

Absolute pressure probe 2000 hPa



Meas. range	Accuracy	Part no.
0 to +2000 hPa	±5 hPa	0638 1835

Air probes

Efficient, robust NTC air probe



Conn.: Fixed cable 1.2 m

Meas. range	Accuracy	t ₉₉	Part no.
-50 to +125 °C	±0.2 °C (-25 to +80 °C) ±0.4 °C (remaining range)	60 s	0613 1712

Surface probes

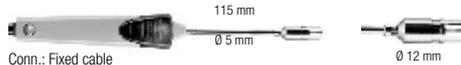
Fast-reaction paddle surface probe, for measurements in inaccessible places, e.g. narrow apertures and slots TC Type K



Conn.: Fixed cable

Meas. range	Accuracy	t ₉₉	Part no.
0 to +300 °C	Class 2	5 s	0602 0193

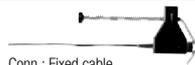
Fast-action surface probe with sprung thermocouple strip, also for uneven surfaces, measurement range short-term to +500°C, TC Type K



Conn.: Fixed cable

Meas. range	Accuracy	t ₉₉	Part no.
-60 to +300 °C	Class 2*	3 s	0602 0393

Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term to +280°C, TC Type K



Conn.: Fixed cable

Meas. range	Accuracy	t ₉₉	Part no.
-60 to +130 °C	Class 2*	5 s	0602 4592

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



Conn.: Fixed cable

Meas. range	Accuracy	t ₉₉	Part no.
-50 to +100 °C	Class 2*	5 s	0602 4692

Imm./penetr. probes

Waterproof immersion/penetration probe, TC Type K

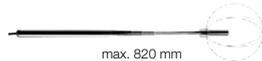


Conn.: Fixed cable 1.2 m

Meas. range	Accuracy	t ₉₉	Part no.
-60 to +400 °C	Class 2*	7 s	0602 1293

435-2/-4
IAQ probes

Comfort level probe for degree of turbulence measurement with telescopic handle (max. 820 mm) and stand, meets EN 13779 requirements



max. 820 mm

Meas. range	Accuracy	Part no.
0 to +50 °C 0 to +5 m/s	±0.3 °C ±(0.03 m/s +4% of mv)	0628 0109

Lux probe, for measuring light intensity



Accuracy to DIN 5032, Part 6:
f1 = 6% = V(Lambda) adjustment
f2 = 5% = cos-like weighting, Class C

0635 0545

Humidity probes

Humidity/temperature probe



Ø 12 mm

Meas. range	Accuracy	Part no.
-20 to +70 °C 0 to +100 %RH	±0.3 °C ±2 %RH (+2 to +98 %RH)	0636 9735

Surface probes

Temperature probe to determine U-value, triple sensor system for measuring wall temperature, modelling clay included



Meas. range	Accuracy	Part no.
-20 to +70 °C	Class 1 U-value: ±0.1 ±2% of fsv**	0614 1635

An additional probe for measuring outer temperatures is required when determining the U-value e.g. 0613 1712 or 0613 1001 or 0613 1002.

* According to standard EN 60584-2, the accuracy of Class 2 refers to -40 to +1200 °C.

** when used with an NTC or wireless humidity probe for measuring outside temperature and 20 K difference between the air inside and outside

435-3/-4

Prandtl's Pitot tubes	Illustration	Oper. temp.	Part no.
Pitot tube, 350 mm long, stainless steel, for measuring flow velocity		0 to +600 °C	0635 2145
Pitot tube, 500 mm long, stainless steel, for measuring flow velocity		0 to +600 °C	0635 2045
Pitot tube, 1000 mm long, stainless steel, for measuring flow velocity		0 to +600 °C	0635 2345

Technical data

Probe type	NTC	Type K	Type T	Testo humid. sensor, cap.	Vane	Hot wire	Absolute pressure probe	CO ₂ (IAQ probe)
Meas. range	-50 to +150 °C	-200 to +1370 °C	-200 to +400 °C	0 to +100 %RH	0 to +60 m/s	0 to +20 m/s	0 to +2000 hPa	0 to +10000 ppm CO ₂
Accuracy ±1 digit	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (-50 to -25.1 °C) ±0.4 °C (+75 to +99.9 °C) ±0.5% of mv (remaining range)	±0.3 °C (-60 to +60 °C) ±(0.2 °C +0.3% of mv) (remaining range)	±0.3 °C (-60 to +60 °C) ±(0.2 °C +0.3% of mv) (remaining range)	See probe data	See probe data	See probe data	See probe data	See probe data
Resolution	0.1 °C	0.1 °C	0.1 °C	0.1 %RH	0.01 m/s (60 vane) 0.1 m/s (16 vane)	0.01 m/s	0.1 hPa	1 ppm CO ₂

Technical data 435-2/-4

Probe type	Lux
Meas. range	0 to +100000 Lux
Accuracy ±1 digit	See probe data
Resolution	1 Lux / 0.1 Hz

Technical data 435-3/-4

Probe type	Differential pressure probe, internal
Meas. range	0 to +25 hPa
Accuracy ±1 digit	±0.02 hPa (0 to +2 hPa) 1% of mv (remaining range)
Overload	200 hPa
Resolution	0.01 hPa

Oper. temp.	-20 to +50 °C
Storage temp.	-30 to +70 °C
Dimensions	220 x 74 x 46 mm
Battery type	Alkali manganese, mignon, Type AA
Battery life	200 h (typical vane measurement)
Weight	450 g
Material/Housing	ABS/TPE/Metal
Warranty	2 years

Accessories

Accessories	Part no.
Transport and Protection	
Service case for basic equipment of measuring instrument and probes, dimensions: 400 x 310 x 96 mm	0516 0035
Service case for measuring instrument, probe and accessories, dimensions 520 x 380 x 120 mm	0516 0435
Additional Accessories and Spare Parts	
Handle for attachable humidity probe head for connection to testo 635, incl. probe wire, for measurement / calibration of humidity probe head	0430 9735
Lithium battery button cell CR2032 mignon type batteries for radio handle	0515 0028
Plug-in mains adapter, 5 VDC 500 mA with European adapter, 100-250 VAC, 50-60 Hz	0554 0447
testovent 410, volume flow funnel, Ø 340 mm/330x330 mm, incl. case	0554 0410
testovent 415, volume flow funnel, Ø 210 mm/210x210 mm, incl. case	0554 0415
Funnel set consisting of funnel for disc outlets (Ø 200) and funnel for ventilator (330 x 330 mm) for in- and outgoing air	0563 4170
Connection hose, silicone, 5m long, max. load 700 hPa (mbar)	0554 0440
testo saline pots for control and humidity adjustment of humidity probes, 11.3 %RH and 75.3 %RH with adapter for humidity probe, quick checks or calibration of humidity probe	0554 0660
Sintered PTFE filter, Ø 12 mm, for corrosive media, High humidity range (long-term measurements), high flow velocities.	0554 0756
Stainless steel sintered cap, Ø 12 mm, is screwed onto humidity probe, for measurements at higher flow velocities or in contaminated air	0554 0647
Adhesive material for fixing and sealing	0554 0761

Accessories

Accessories	Part no.
Printer and Accessories	
Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries, for printing out measurements on site	0554 0549
Spare thermal paper for printer (6 rolls), measurement data documentation legible for up to 10 years	0554 0568
Spare thermal paper for printer (6 rolls)	0554 0569
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610
Calibration Certificates	
ISO calibration certificate/temperature, meas. instr. with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071
ISO calibration certificate humidity, Calibration points 11.3 %RH and 75.3 %RH at +25°C	0520 0006
ISO calibration certificate/pressure differential pressure; 5 points distributed over meas. range	0520 0005
ISO calibration certificate velocity, hot wire, vane anemometer; calibration points 0.5; 0.8; 1; 1.5 m/s	0520 0024
ISO calibration certificate velocity, hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004
ISO calibration certificate/Velocity, hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034
ISO calibration certificate/light, Calibration points 0;500;1000;2000;4000 Lux	0520 0010
ISO calibration certificate/CO ₂ , CO ₂ probes; calibration points 0; 1000; 5000 ppm	0520 0033

435-1/-2/-3/-4
Radio module for upgrading measuring instrument with radio option

Country versions	Radio freq.	Part no.
Radio module for measuring instrument, 869.85 MHz, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0188
Radio module for measuring instrument, 915.00 MHz FSK, approval for USA, CA, CL	915.00 MHz FSK	0554 0190

Assembled for you: Radio handles with probe head
Radio handles with probe head for surface measurement
Radio handle for attachable probe heads with T/C probe head for surface measurement


Meas. range	Accuracy	Resolution	t ₉₉ s
-50 to +350 °C Short-term to +500 °C	Radio handle: ±(0.5 °C +0.3% of mv) (-40 to +500 °C) ±(0.7 °C +0.5% of mv) (remaining range) T/C probe head: Class 2	0.1 °C (-50 to +199.9 °C) 1.0 °C (remaining range)	5

Country versions	Radio freq.	Part no.
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189
T/C probe head for surface measurement, attachable to radio handle, T/C Type K		0602 0394
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191
T/C probe head for surface measurement, attachable to radio handle, T/C Type K		0602 0394

435-2/-4
Radio probes incl. humidity probe head
Radio handle for attachable probe heads with humidity probe head


Meas. range	Accuracy	Resolution
0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH) ±0.3 °C	0.1 %RH 0.1 °C

Country versions	Radio freq.	Part no.
Radio handle for plug-in probe heads, incl. T/C adapter, approval for the countries: DE, FR, UK, BE, NL, ES, IT, SE, AT, DK, FI, HU, CZ, PL, GR, CH, PT, SI, MT, CY, SK, LU, EE, LT, IE, LV, NO	869.85 MHz FSK	0554 0189
Humidity probe head, attachable to radio handle		0636 9736
Radio handle for plug-in probe heads, incl. T/C adapter, approval for USA, CA, CL	915.00 MHz FSK	0554 0191
Humidity probe head, attachable to radio handle		0636 9736

Radio probes: General technical data

Battery type	Radio handle 2 AAA micro batteries	Measuring rate	0.5 s or 10 s, adjustable on handle	Radio transmission	Unidirectional
Battery life	215 h (meas. rate 0.5 s) 6 months (meas. rate 10 s)			Oper. temp.	-20 to +50 °C
		Radio coverage	Up to 20 m (without obstructions)	Storage temp.	-40 to +70 °C
				Protection class	IP54

testo 445

Service instrument for ventilation/air conditioning systems

The testo 445 VAC instrument measures temperature, relative humidity, dew point, absolute humidity, degree of humidity, enthalpy, all types of air velocity (in ducts, duct openings or extractors), volume flow, pressure and indoor air quality.

Data can be saved according to location and then analysed on PC or printed on the Testo fast printer on site.

testo 445, VAC measuring instrument, incl. TopSafe, battery and calibration protocol

Part no.
0563 4450

- Automatic mean calculation and volume flow measurement
- Automatic allocation of duct cross-section to location (max. 99 locations)
- Internal data logger (3,000 readings)
- Simultaneous measurement of up to 6 parameters



testo 445
Practical accessories and technical data

Accessories	Part no.
Transport and Protection	
Transport case (plastic) for measuring instrument, probes and accessories Larger version, for safe and clear storage	0516 0445
System case (plastic) for measuring instrument, probes and accessories, probes in lid make it easy to find parts in case (540 x 440 x 130 mm)	0516 0400
System case (aluminium) for measuring instrument, probes and accessories probes in lid make it easy to find parts in case	0516 0410
Additional Accessories and Spare Parts	
9V rech. battery for instrument instead of battery	0515 0025
Desk-top power supply with international connection options	0554 1143
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument, PUR coating material	0430 0143
Cable, 5 m long, connects probe with plug-in head to measuring instrument PUR coating material	0430 0145
Extension cable, 5 m long, between plug-in head cable and instrument PUR coating material	0409 0063
Printer and Accessories	
Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries	0554 0549
Fast testo 575 printer, incl. 1 roll of thermal paper and batteries infrared thermal line printer with graphics function	0554 1775
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610
Spare thermal paper for printer (6 rolls)	0554 0569
Spare thermal paper for printer (6 rolls) measurement data documentation legible for up to 10 years	0554 0568
Label thermal paper (Testo patent) for testo 575 printer (6 rolls), can be applied directly	0554 0561
Software and Accessories	
ComSoft 3 - Professional with data management incl. database, analysis and graphics function, data analysis, trend curve	0554 0830
RS232 cable connects instrument to PC (1.8 m) for data transfer	0409 0178
Ethernet adapter, RS232 - Ethernet incl. software driver, mains unit facilitates data communication in network	0554 1711
Calibration Certificates	
ISO calibration certificate velocity ,hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004
ISO calibration certificate/Velocity hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034
DAkkS calibration certificate/velocity* hot wire, vane anemometer; calibration points 0.5; 1; 2; 5; 10 m/s	0520 0244
DAkkS calibration certificate/velocity* hot wire, vane anemometer, Pitot tube; calibration points 2; 5; 10; 15; 20 m/s	0520 0204

*Successor organization of the DKD

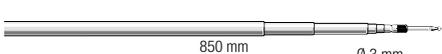
Technical data	Type K (NiCr-Ni)	Type J (Fe-CuNi)	NTC
Probe type			
Meas. range	-200 to +1370 °C	-200 to +1000 °C	-50 to +150 °C
Accuracy ±1 digit	±0.5% of mv (-200 to 60 °C) ±0.5% of mv (+60 to +1370 °C) ±0.3 °C (-60 to +60 °C)	±0.5% of mv (-200 to 60 °C) ±0.5% of mv (+60 to +1000 °C) ±0.3 °C (-60 to +60 °C)	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (-50 to -25.1 °C) ±0.4 °C (+75 to +99.9 °C)
Resolution	0.1 °C (-200 to +1370 °C)	0.1 °C (-200 to +1000 °C)	0.1 °C (-50 to +150 °C)

Probe type	Testo humid. sensor, cap.	Vane	Thermal
Meas. range	0 to +100 %RH	0 to +60 m/s	0 to +20 m/s
Accuracy ±1 digit	See probe data	See probe data	See probe data
Resolution	0.1 %RH (0 to +100 %RH)	0.01 m/s (0 to +60 m/s)	0.01 m/s (0 to +10 m/s) 0.1 m/s (+10.1 to +20 m/s)

Probe type	Pressure	CO2 probe	
Meas. range	See pressure probes	0 to +1 Vol. % CO ₂	0 to +10000 ppm CO ₂
Accuracy ±1 digit	±0.1% of mv	See probe data	±(100 ppm CO ₂ ±3% of mv) (+5000 to +10000 ppm CO ₂) ±(500 ppm CO ₂ ±2% of mv) (0 to +5000 ppm CO ₂)
Resolution	0.001 hPa (Sonde 0638 1345) 0.001 hPa (Sonde 0638 1445) 0.01 hPa (Sonde 0638 1545) 1 hPa (Sonde 0638 1645)	0 Vol. % CO ₂ (0 to +1 Vol. % CO ₂)	1 ppm CO ₂ (0 to +10000 ppm CO ₂)

Probe type	CO probe		
Meas. range	0 to +500 ppm CO		
Accuracy ±1 digit	±5% of mv (+100 to +500 ppm CO) ±5 ppm CO (0 to +100 ppm CO)		
Resolution	1 ppm CO (0 to +500 ppm CO)		

Oper. temp.	0 to +50 °C	Battery life: 6-45 h (depending on probe) Mains conn. and batt. rech. in instr. Calculated humidity parameters: td, g/m ³ , g/kg pressure-compensated, J/g Calculated volume flow: m ³ /h (e.g. 0 to 99999 m ³ /h), m ³ /min, m ³ /s, l/s, cfm Calculated velocity values (density-compensated): 0 to 100 m/s; 0 to 99999 m ³ /h Humidity measurement: Measuring range -50 to 180 °C; See Probes for accuracy Accuracy of Type K, J: Additional error via operation temperature 0.2 °C (adjustment point)
Storage temp.	-20 to +70 °C	
Display	LCD, 4 lines	
Battery type	9V block battery	
Battery life	45 h	
PC	RS232 interface	
Weight	255 g	
Material/Housing	ABS	
Warranty	2 years	
Memory	3000	
Dimensions	215 x 68 x 47 mm	

Probes	Illustration	Probe type	Meas. range	Accuracy	Part no.
Vane probe, Ø 12 mm, can be attached to handle 0430 3545 or telescopic handle 0430 0941		Vane	+0.6 to +20 m/s Oper. temp. -30 to +140 °C	±(0.2 m/s ±1% of mv) (+0.6 to +20 m/s)	0635 9443
Vane/temperature probe, Ø 16 mm, attachable to 0430 3545 handle or 0430 0941 telescopic handle		Vane Type K (NiCr-Ni)	+0.4 to +60 m/s -30 to +140 °C	±(0.2 m/s +1% of mv) (+0.4 to +40 m/s) ±(0.2 m/s +2% of mv) (+40.1 to +50 m/s)	0635 9540
Vane/temperature probe, Ø 25 mm, can be attached to 0430 3545 handle or 0430 0941 telescopic handle		Vane Type K (NiCr-Ni)	+0.4 to +40 m/s -30 to +140 °C	±(0.2 m/s ±1% of mv) (+0.4 to +40 m/s)	0635 9640
Bendable vane probe (can be bent by 90°), Ø 60 mm, attachable to handle 0430 3545 or telescopic handle 0430 0941, for meas. on ventilation outlets		Vane	+0.25 to +20 m/s Oper. temp. 0 to +60 °C	±(0.1 m/s ±1.5% of mv) (+0.25 to +20 m/s)	0635 9440
Bendable vane probe (can be bent by 90°), Ø 100 mm, attachable to handle 0430 3545 or telescopic handle 0430 0941, for measurements on ventilation outlets		Vane	+0.1 to +15 m/s Oper. temp. 0 to +60 °C	±(0.1 m/s ±1.5% of mv) (+0.1 to +15 m/s)	0635 9340
Affordable, robust hot bulb probe, Ø 3 mm, for measurements in the lower velocity range, with handle		Hot bulb NTC	0 to +10 m/s -20 to +70 °C	±(0.03 m/s ±5% of mv) (0 to +10 m/s)	0635 1549
Robust hot bulb probe, Ø 3 mm, with handle and telescopic handle for measurements in the lower velocity range		Hot bulb NTC	0 to +10 m/s -20 to +70 °C	±(0.03 m/s ±5% of mv) (0 to +10 m/s)	0635 1049
Quick-action hot wire probe, Ø 10 mm, with telescopic handle, for measurements in the lower velocity range with direction recognition		Hot wire NTC	0 to +20 m/s -20 to +70 °C	±(0.03 m/s ±4% of mv) (0 to +20 m/s)	0635 1041
Vane probe, Ø 16 mm, with telescopic handle, Tmax +60°C		Vane	+0.6 to +40 m/s	±(0.2 m/s ±1.5% of mv) (+0.6 to +40 m/s)	0628 0005
Vane probe, Ø 60 mm, with telescopic handle, for integrating velocity measurement		Vane	+0.25 to +20 m/s	±(0.1 m/s ±1.5% of mv) (+0.25 to +20 m/s)	0635 9449
High temperature vane probe, Ø 25 mm, with handle for continuous measurements up to +350°C		Vane Type K (NiCr-Ni)	+0.6 to +20 m/s -40 to +350 °C	±(0.3 m/s ±1% of fsv) (+0.6 to +20 m/s)	0635 6045
Precision pressure probe, 100 Pa, measures differential pressure and velocities (in combination with Pitot tube)		Differential pressure probe	0 to +100 Pa	±(0.3 Pa ±0.5% of mv) (0 to +100 Pa)	0638 1345
Pressure probe, 10 hPa, measures differential pressure and velocities (in combination with Pitot tube)		Differential pressure probe	0 to +10 hPa	±0.03 hPa (0 to +10 hPa)	0638 1445

testo 445
Suitable probes at a glance

Probes	Illustration	Probe type	Meas. range	Accuracy	Part no.	
Pressure probe, 100 hPa, measures differential pressure and velocities (in combination with Pitot tube)		Differential pressure probe	0 to +100 hPa	±0.5% of mv (+20 to +100 hPa) ±0.1 hPa (0 to +20 hPa)	0638 1545	
Pressure probe, 2000 hPa, measures absolute pressure		Absolute pressure probe	0 to +2000 hPa	±5 hPa (0 to +2000 hPa)	0638 1645	
Pitot tube, 500 mm long, stainless steel, for measuring flow velocity			Oper. temp. 0 to +600 °C		0635 2045	
Pitot tube, 350 mm long, stainless steel, for measuring flow velocity			Oper. temp. 0 to +600 °C		0635 2145	
Pitot tube, 300 mm long, stainless steel, for measuring flow velocity			Oper. temp. 0 to +600 °C		0635 2245	
Pitot tube, 1000 mm long, stainless steel, for measuring flow velocity			Oper. temp. 0 to +600 °C		0635 2345	
3-function probe for simultaneous measurement of temperature, humidity and velocity. With plug-in head, 0430 0143 connection cable required		Hot bulb Testo humid. sensor, cap. NTC	0 to +10 m/s 0 to +100 %RH -20 to +70 °C	±(0.03 m/s ±5% of mv)(0 to 10 m/s) ±2 %RH (+2 to +98 %RH) ±0.4 °C (0 to +50 °C) ±0.5 °C (remaining range)	0635 1540	
Comfort level probe for measuring degree of turbulence, with telescopic handle and stand. Fulfills EN 13779 requirements		Hot wire NTC	0 to +5 m/s 0 to +50 °C	±(0.03 m/s ±4% of mv) (0 to +5 m/s) ±0.3 °C (0 to +50 °C)	0628 0009	
CO2 probe measures indoor air quality and monitors the workplace. With plug-in head, connection cable 0430 0143 or 0430 0145 required		CO2 probe	0 ... +1 Vol. % CO ₂ 0 ... +10000 ppm	±(50 ppm CO ₂ ±2% of mv)(0 to +5000 ppm CO ₂) ±(100 ppm CO ₂ ±3% of mv)(+5001 to +10000 ppm CO ₂)	0632 1240	
Ambient CO probe, for detecting CO in buildings and rooms			0 to +500 ppm CO	±5% of mv (+100.1 to +500 ppm CO) ±5 ppm CO (0 to +100 ppm CO)	0632 3331	
More probes	Illustration	Meas. range	Accuracy	t ₉₀	Part no.	
Standard ambient air probe up to +70 °C		0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	12 s	0636 9740
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Duct humidity/temperature probe		0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	12 s	0636 9715
Fixed cable; Cable/length 3 m						
Thin humidity probe incl. 4 attachable protection caps for ambient air measurements, measurements in exhaust air ducts and equilibrium moisture measurements		0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (-20 to -10.1 °C) ±0.5 °C (+50.1 to +70 °C)	15 s	0636 2130
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Highly accurate reference humidity/temp. probe		0 to +100 %RH -20 to +70 °C	±1 %RH (+10 to +90 %RH)* ±2 %RH (remaining range)	±0.2 °C (+10 to +40 °C) ±0.4 °C (remaining range)	12 s	0636 9741
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Flexible humidity probe with mini module for meas. e.g. on material testing rigs, module cable length 1500mm, probe tip 50x19x7mm		0 to +100 %RH -20 to +125 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	20 s	0628 0013
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Sword probe for measuring humidity and temperature in stacked material		0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (-20 to -10.1 °C) ±0.5 °C (+50.1 to +70 °C)	12 s	0636 0340
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
High humidity level probe w/ heated sensor element, no humidity on sensor		0 to +100 %RH -20 to +85 °C	±2.5 %RH (0 to +100 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (-20 to -10.1 °C) ±0.5 °C (+50.1 to +100 °C)	30 s	0636 2142
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Robust humidity probe e.g. for measuring equilibrium moisture or for measurements in exhaust ducts to +120 °C		0 to +100 %RH -20 to +120 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	30 s	0636 2140
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Robust high temperature/humidity probe up to +180 °C		0 to +100 %RH -20 to +180 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (+0.1 to +50 °C) ±0.5 °C (remaining range)	30 s	0628 0021
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Flexible humidity probe (does not retain shape) for measurements in inaccessible places		0 to +100 %RH -20 to +180 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (+0.1 to +50 °C) ±0.5 °C (-20 to 0 °C) ±0.5 °C (+50.1 to +180 °C)	30 s	0628 0022
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Standard pressure dew point probe for measurements in compressed air systems		0 to +100 %RH -30 to +50 °C tpd		±0.9 °C tpd (+0.1 to +50 °C tpd) ±1 °C tpd (-4.9 to 0 °C tpd) ±2 °C tpd (-9.9 to -5 °C tpd) ±3 °C tpd (-19.9 to -10 °C tpd) ±4 °C tpd (-30 to -20 °C tpd)	300 s	0636 9840
Plug-in head, connection cable 0430 0143 or 0430 0145 required						
Precision pressure dew point probe for measurements in compressed air systems incl. cert. with test point -40 °C tpd		0 to +100 %RH -60 to +50 °C tpd		±0.8 °C tpd (-4.9 to +50 °C tpd) ±1 °C tpd (-9.9 to -5 °C tpd) ±2 °C tpd (-19.9 to -10 °C tpd) ±3 °C tpd (-29.9 to -20 °C tpd) ±4 °C tpd (-40 to -30 °C tpd)	300 s	0636 9841

Probes	Illustration	Meas. range	Accuracy	t99	Part no.
Quick-action surface probe with sprung thermocouple strip, measuring range short-term to +500 °C	150 mm Plug-in head. connection cable 0430 0143 or 0430 0145 required Ø 10 mm	-200 to +300 °C	Class 2*	3 s	0604 0194
Super quick-action immersion/penetration probe for measurements in liquids	150 mm Ø 1.5 mm Plug-in head. connection cable 0430 0143 or 0430 0145 required	-200 to +600 °C	Class 1*	1 s	0604 0493
Super quick-action immersion/penetration probe for measurements in gases and liquids with a low-mass tip	150 mm Ø 1.4 mm 20 mm Ø 0.5 mm Plug-in head. connection cable 0430 0143 or 0430 0145 required	-200 to +600 °C	Class 1*	1 s	0604 9794
Pipe wrap probe for pipes up to 2" in diameter	Fixed cable	-60 to +130 °C	Class 2*	5 s	0600 4593
Spare meas. head for pipe wrap probe, TC Type K	35 mm 15 mm	-60 to +130 °C	Class 2*	5 s	0602 0092
Globe thermometer to measure radiant heat	Ø 150 mm Fixed cable	Accuracy corresponds to ISO 7243, ISO 7726, DIN EN 27726, DIN 33403 requirements 0 to +120 °C	±0.5 °C (0 to +49.9 °C) ±1 °C (+50 to +120 °C)		0554 0670

*According to standard EN 60584-2, the accuracy of Classes 1 / 2 refer to -40 to +1000/+1200 °C.

See testo 400 for more probes

Accessories for velocity probes, pressure probes	Part no.
Professional telescopic handle for plug-in vane probes, max. 1 m long	0430 0941
Extension for telescopic handle, 2 m long please also order the 0409 0063 extension cable	0430 0942
Handle for plug-in vane probes	0430 3545
Extension cable, 5 m long, between plug-in head cable and instrument PUR coating material	0409 0063
Connection hose, silicone, 5m long max. load 700 hPa (mbar)	0554 0440
Cover plugs for test holes (50 off)	0554 4001

Accessories for temperature probes	Part no.
Silicone heat paste (14g), Tmax = +260°C improves heat transfer in surface probes	0554 0004
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument PUR coating material	0430 0143
Cable, 5 m long, connects probe with plug-in head to measuring instrument PUR coating material	0430 0145
Extension cable, 5 m long, between plug-in head cable and instrument PUR coating material	0409 0063
Telescopic handle, max. 1 m, for probe with plug-in head cable: 2.5 m long, PUR coating material	0430 0144

Accessories: Humidity, 3-function probe	Part no.
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument PUR coating material	0430 0143
Cable, 5 m long, connects probe with plug-in head to measuring instrument PUR coating material	0430 0145
Extension cable, 5 m long, between plug-in head cable and instrument PUR coating material	0409 0063
Telescopic handle, max. 1 m, for probe with plug-in head cable: 2.5 m long, PUR coating material	0430 0144
testo saline pots for control and humidity adjustment of humidity probes, 11.3 %RH and 75.3 %RH with adapter for humidity probe	0554 0660
Metal protection cage, Ø 12 mm for humidity probes for measurement in flow velocities of less than 10 m/s	0554 0755
Cap with wire mesh filter, Ø 12 mm	0554 0757
PTFE sintered filter, Ø 21 mm, for corrosive substances high humidity range (long-term measurements), high velocities	0554 0666
Sintered PTFE filter, Ø 12 mm, for corrosive media High humidity range (long-term measurements), high flow velocities.	0554 0756
Stainless steel sintered cap, Ø 21 mm, can be screwed onto humidity probe protection in case of high mechanical load and high velocities	0554 0640
Stainless steel sintered cap, Ø 12 mm, is screwed onto humidity probe for measurements at higher flow velocities or in contaminated air	0554 0647
PTFE cap, Ø 5 mm, attachable, PTFE material, (5 off) PTFE dust protection, high humidity measurements, high flow speeds for humidity probe 0636 2130	0554 1031
PTFE sintered filter, Ø 12 mm, for corrosive substances high humidity range (non-stop measurements), high flow speeds	0554 0758

testo 400

Precision reference class measuring instruments have everything the professional user needs to complete complicated measurement tasks efficiently, accurately and conveniently.

testo 400 includes the parameters

temperature, CO₂, rpm, current, voltage, relative humidity, pressure, flow and volume flow.

Intelligent electronics ensure the latest technology is used thanks to software updates.

The measuring instrument can always keep up with the measurement tasks at hand thanks to upgrades.

Upgradable and teachable, highly reliable and of the highest quality - they are the properties which guarantee that the customer is equipped for the future.

Useful instrument functions:

- System accuracy up to 0.05 °C and up to a resolution of 0.001 °C
- All functions of testo 650 and testo 950
- Input of cross-sections for volume flow calculation
- Absolute pressure compensation in thermal probes
- Density calculation for velocity measurement with reference to temperature, humidity and absolute pressure
- Turbulence degree measurement to EN 137729
- Assessment of volume flow measurements with calculation of total uncertainty of measurement in accordance with EN 12599 with VAC module (optional)

The reference measuring instrument for A/C and ventilation systems

- VAC module for evaluating the measurement directly on site with integrated inaccuracy calculation
- Clear graphics display
- 3 user defined function buttons
- Save up to max. 500,000 readings) or print at the touch of a button
- Mains connection/quick battery recharge
- Attachable printer (optional)
- Prints readings on site in a matter of seconds
- Data communication via PC
- User friendly operation with cursor via menu structure
- Integrated reading memory for up to 500,000 readings



- Attachable printer
Prints readings on site in the matter of seconds
- Clear graphics display
- Data communication with PC, barcode reader
- 3 user defined function buttons
Saves or prints at the touch of a button
- Easy operation with cursor
- Mains connection/Fast battery recharging
- 2 user-defined probe sockets

testo 400

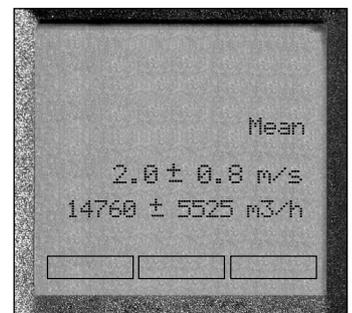
testo 400, multi-functional measuring instrument, incl. measurement value store up to 500,000 readings, VAC-module (determination of volume flow with error calculation), battery, Li-cell and calibration protocol

Can be used for:

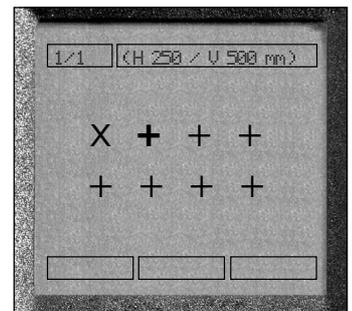
- Velocity, volume flow
- Humidity, pressure
- Temperature
- CO₂, rpm and current/voltage

Part no.

0563 4001



Assessment of measurement directly on location with integrated uncertainty calculation



The coordinates required for the grid measurement are shown in the instrument display. The depth information on the vane telescopic handle makes the task that much easier in practice.

Recommended Set
For fast measurements on VAC systems

- testo 400, multi-functional measuring instrument, incl. measurement value store up to 500,000 readings, VAC-module (determination of volume flow with error calculation), battery, Li-cell and calibration protocol (Part no. 0563 4001)
- ComSoft 3 - Professional with data management (Part no. 0554 0830)
- RS232 cable (Part no. 0409 0178)
- Bendable vane probe (can be bent by 90°), Ø 100 mm, attachable to handle 0430 3545 or telescopic handle 0430 0941, for measurements on ventilation outlets (Part no. 0635 9340)
- Vane/temperature probe, Ø 16 mm, attachable to 0430 3545 handle or 0430 0941 telescopic handle (Part no. 0635 9540)
- Professional telescopic handle for plug-in vane probes, max. 1 m long (Part no. 0430 0941)
- Attachable printer (securely attached) including 1 roll of thermal paper and batteries (Part no. 0554 0570)
- SoftCase (protects instrument from impact) with carrier strap, magnetic holder and probe holder (Part no. 0516 0401)
- SoftCase for attachable printer (protects printer from dirt/impact) (Part no. 0516 0411)
- System case (aluminium) for measuring instrument, probes and accessories (Part no. 0516 0410)

We recommend:

DAkkS calibration certificate/temperature* 0520 0201
 El. resistance thermometer, el. thermometer, cal. points selectable from -80 to +1000°C

The pro set for assessing workplaces subjected to heat

- testo 400, multi-functional measuring instrument, incl. measurement value store up to 500,000 readings, VAC-module (determination of volume flow with error calculation), battery, Li-cell and calibration protocol (Part no. 0563 4001)
- Wet Bulb Globe temperature probe to assess workplaces subjected to heat, in accordance with ISO 7243 or DIN 33403, incl. WBGT case (Part no. 0635 8888)
- Attachable printer (securely attached) including 1 roll of thermal paper and batteries (Part no. 0554 0570)

We recommend:

ISO calibration certificate/temperature 0520 0181
 for air/immersion probes, calibration points -8°C; 0°C; +40°C

testo 400, the Pro set for comfort level meas. & occupational safety/health

- testo 400, multi-functional measuring instrument, incl. measurement value store up to 500,000 readings, VAC-module (determination of volume flow with error calculation), battery, Li-cell and calibration protocol (Part no. 0563 4001)
- Comfort level probe for measuring degree of turbulence, with telescopic handle and stand. Fulfills EN 13779 requirements (Part no. 0628 0009)
- Attachable printer (securely attached) including 1 roll of thermal paper and batteries (Part no. 0554 0570)

We recommend:

CO2 probe measures indoor air quality and monitors the workplace. With plug-in head, connection cable 0430 0143 or 0430 0145 required 0632 1240

Cable, 1.5 m long, connects probe with plug-in head to meas. instrument 0430 0143
 PUR coating material

Standard ambient air probe up to +70°C 0636 9740
 Measures all physical parameters in the psychrometric chart

Quick-action surface probe with sprung thermocouple strip, measuring range short-term to +500 °C 0604 0194

Cable, 1.5 m long, connects probe with plug-in head to meas. instrument 0430 0143
 PUR coating material

Recommended Set
Laboratory fume cupboard probe

- testo 400, multi-functional measuring instrument, incl. measurement value store up to 500,000 readings, VAC-module (determination of volume flow with error calculation), battery, Li-cell and calibration protocol (Part no. 0563 4001)
- Mains unit 230 V/ 8 V/ 1 A, for instrument (European plug) (Part no. 0554 1084)
- Rech. batt. set for instr. (2 rech. 2.4V/1100mAh) (Part no. 0554 0196)
- Thermal anemometer probe, Ø 10 mm, w. telescopic handle, measures air flow in lab fume cupboards to DIN EN 14175 (Part no. 0635 1047)
- Standard ambient air probe up to +70°C (Part no. 0636 9740)
- Pressure probe, 2000 hPa, measures absolute pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment (Part no. 0638 1847)
- Precision pressure probe, 100 Pa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube) (Part no. 0638 1347)
- Cable, 1.5 m long, connects probe with plug-in head to meas. instrument (Part no. 0430 0143)
- Comfort level probe for measuring degree of turbulence, with telescopic handle and stand. Fulfills EN 13779 requirements (Part no. 0628 0009)

We recommend:

ComSoft 3 - Professional with data management 0554 0830
 incl. database, analysis and graphics function, data analysis, trend curve

RS232 cable 0409 0178
 connects instrument to PC (1.8 m) for data transfer

Attachable printer (securely attached) including 1 roll of thermal paper and batteries 0554 0570

SoftCase (protects instrument from impact) with carrier strap, magnetic holder and probe holder 0516 0401

SoftCase for attachable printer (protects printer from dirt/impact) 0516 0411
 protects from impact and falls

System case (aluminium) for measuring instrument, probes and accessories 0516 0410
 probes in lid make it easy to find parts in case

DAkkS calibration certificate/Velocity for laboratory fume cupboard probe*

ISO calibration certificate/Velocity for laboratory fume cupboard probe

The Pro Set for clean room systems

- testo 400, multi-functional measuring instrument, incl. measurement value store up to 500,000 readings, VAC-module (determination of volume flow with error calculation), battery, Li-cell and calibration protocol (Part no. 0563 4001)
- Precision pressure probe, 100 Pa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube) (Part no. 0638 1347)
- Precision air probe (Part no. 0628 0017)
- Highly accurate reference humidity/temp. probe (Part no. 0636 9741)
- Cable, 1.5 m long, connects probe with plug-in head to meas. instrument (Part no. 0430 0143)
- Cable, 1.5 m long, connects probe with plug-in head to meas. instrument (Part no. 0430 0143)
- Quick-action hot wire probe, Ø 10 mm, with telescopic handle, for measurements in the lower velocity range with direction recognition (Part no. 0635 1041)
- Bendable vane probe (can be bent by 90°), Ø 100 mm, attachable to handle 0430 3545 or telescopic handle 0430 0941, for measurements on ventilation outlets (Part no. 0635 9340)
- Professional telescopic handle for plug-in vane probes, max. 1 m long (Part no. 0430 0941)
- Current/voltage cable (±1 V, ±10 V, 20 mA) (Part no. 0554 0007)
- SSystem case (aluminium) for measuring instrument, probes and accessories (Part no. 0516 0410)
- CComSoft 3 - Professional with data management (Part no. 0554 0830)
- RS232 cable (Part no. 0409 0178)

We recommend:

DAkkS calibration certificates for temperature, humidity, velocity, pressure (See Calibration)*

*Successor organization of the DKD

testo 400
Accessories and Calibration Certificates

Accessories	Part no.
Accessories for measuring instrument	
Rech. batt. set for instr. (2 rech. 2.4V/1100mAh) selected for quick recharging in instrument	0554 0196
Lithium battery button cell CR2032 mignon type batteries for radio handle	0515 0028
Printer and Accessories	
Attachable printer (securely attached) including 1 roll of thermal paper and batteries	0554 0570
Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries	0554 0549
Fast testo 575 printer, incl. 1 roll of thermal paper and batteries	0554 1775
infrared thermal line printer with graphics function	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610
Mains unit 230 V/ 8 V/ 1 A, for instrument (European plug)	0554 1084
Spare thermal paper for printer (6 rolls)	0554 0569
Spare thermal paper for printer (6 rolls)	0554 0568
measurement data documentation legible for up to 10 years	
Label thermal paper (Testo patent) for testo 575 printer (6 rolls), can be applied directly	0554 0561
SoftCase for instrument and printer	
SoftCase (protects instrument from impact) with carrier strap, magnetic holder and probe holder	0516 0401
SoftCase for attachable printer (protects printer from dirt/impact) protects from impact and falls	0516 0411
Software and Accessories	
ComSoft 3 - Professional with data management incl. database, analysis and graphics function, data analysis, trend curve	0554 0830
RS232 cable connects instrument to PC (1.8 m) for data transfer	0409 0178
Ethernet adapter, RS232 - Ethernet incl. software driver, mains unit facilitates data communication in network	0554 1711
System case	
System case (plastic) for measuring instrument, probes and accessories probes in lid make it easy to find parts in case (540 x 440 x 130 mm)	0516 0400
System case (aluminium) for measuring instrument, probes and accessories probes in lid make it easy to find parts in case	0516 0410

Calibration Certificates	Part no.
Calibration certificates/temperature	
ISO calibration certificate/temperature for air/immersion probes, calibration points -18°C; 0°C; +60°C	0520 0001
ISO calibration certificate/temperature Meas. instr. with air/immersion probe; cal. points 0°C; +150°C; +300°C	0520 0021
ISO calibration certificate/temperature meas. instr. with surface probe; calibration points +60°C; +120°C; +180°C	0520 0071
DAkkS calibration certificate/temperature* meas. instr. with air/immersion probe; calibration points -20°C; 0°C; +60°C	0520 0211
DAkkS calibration certificate/temperature* contact surface temperature probes; calibration points +100°C; +200°C; +300°C	0520 0271
Calibration certificates/humidity	
ISO calibration certificate/humidity cal. points freely selectable from 5 to 95%RH at +15 to +35°C or at -18 to +80°C	0520 0106
ISO calibration certificate humidity Calibration points 11.3 %RH and 75.3 %RH at +25°C	0520 0006
ISO calibration certificate dewpoint two adjustment points -10/-40 °Ctd at 6 bar	0520 0136
ISO calibration certificate/humidity saturated saline solutions: calibration point 11.3%RH	0520 0013
ISO calibration certificate/humidity saturated saline solutions, calibration point 75.3%RH	0520 0083
DAkkS calibration certificate/humidity* electronic hygrometers; calibration points 11.3%RH and 75.3%RH at +25°C	0520 0206
DAkkS calibration certificate/humidity* cal. points freely selectable from 5 to 95%RH at +25°C or -18°C to +70°C	0520 0216
DAkkS calibration certificate/humidity* saturated saline solutions; calibration point 11.3%RH	0520 0213
DAkkS calibration certificate/humidity* saturated saline solutions; calibration point 75.3%RH	0520 0283
Calibration certificates/pressure	
ISO calibration certificate/pressure differential pressure; 5 points distributed over meas. range	0520 0005
DAkkS calibration certificate/pressure* diff. and pos. pressure; 6 meas. points distributed over meas. range (>0.6% of fsv)	0520 0225
ISO calibration certificate/pressure differential pressure, accuracy 0.1 to 0.6 (% of fsv)	0520 0025
DAkkS calibration certificate/pressure* diff. and pos. pressure; 11 measuring points distributed over the instr. meas. range	0520 0215
ISO calibration certificate/absolute pressure, 5 measurement points distributed over meas. range absolute pressure, accuracy 0.1 to 0.6 (% of fsv)	0520 0125
DAkkS calibration certificate/pressure* absolute pressure; 11 measuring points distributed over meas. range	0520 0212
Calibration certificates/velocity	
ISO calibration certificate/velocity all velocity probes, calibration points selectable from 0.3 to 50 m/s at +25°C	0520 0104
ISO calibration certificate velocity hot wire, vane anemometer, Pitot tube; calibration points 1; 2; 5; 10 m/s	0520 0004
ISO calibration certificate/Velocity hot wire, vane anemometer, Pitot tube; calibration points 5; 10; 15; 20 m/s	0520 0034
ISO calibration certificate velocity hot wire, vane anemometer; calibration points 0.5; 0.8; 1; 1.5 m/s	0520 0024
DAkkS calibration certificate/velocity* hot wire, vane anemometer; calibration points 0.5; 1; 2; 5; 10 m/s	0520 0244
DAkkS calibration certificate/velocity* hot wire, vane anemometer, Pitot tube; calibration points 2; 5; 10; 15; 20 m/s	0520 0204
DAkkS calibration certificate/velocity* hot wire anemometer; calibration points 0.1; 0.2; 0.5; 0.8; 1 m/s	0520 0224

*Successor organization of the DKD

Technical data					
Probe type	Vane	Thermal	Testo humid. sensor, cap.	Pressure	aw value
Meas. range	0 to +60 m/s	0 to +20 m/s	0 to +100 %RH	0 to +2000 hPa	0 to +1 aW
Accuracy ±1 digit	See probe data for system accuracy	See probe data for system accuracy	See probe data	Probe 0638 1347 Probe 0638 1447 Probe 0638 1547 Probe 0638 1647 Probe 0638 1747 Probe 0638 1847 ±0.1% of mv Probe 0638 1741 Probe 0638 1841 Probe 0638 1941 Probe 0638 2041 Probe 0638 2141 ±0.2% of mv	See probe data
Resolution	0.01 m/s (for Ø 60/100 mm), 0.1 m/s (for rem. probes)	0.01 m/s (0 to +20 m/s)	0.1 %RH (0 to +100 %RH)	0.001 hPa (Probe 0638 1347) 0.001 hPa (Probe 0638 1447) 0.01 hPa (Probe 0638 1547) 0.1 hPa (Probe 0638 1647) 0.1 hPa (Probe 0638 1747) 0.1 hPa (Probe 0638 1847) 0.01 bar (Probe 0638 1741) 0.01 bar (Probe 0638 1841) 0.01 bar (Probe 0638 1941) 0.01 bar (Probe 0638 2041) 0.01 bar (Probe 0638 2141)	

Probe type	NTC	Pt100	Type K (NiCr-Ni)	Type S (Pt10Rh-Pt)	Type J (Fe-CuNi)
Meas. range	-40 to +150 °C	-200 to +800 °C	-200 to +1370 °C	0 to +1760 °C	-200 to +1000 °C
Accuracy ±1 digit	±0.2 °C (-10 to +50 °C) ±0.4 °C (-40 to -10.1 °C) ±0.4 °C (+50.1 to +150 °C)	±0.1 °C (-49.9 to +99.9 °C) ±(0.1 °C + 0.1% of mv) (remaining range)	±(0.3 °C + 0.1% of mv)	±1 °C (0 to +1760 °C)	±0.4 °C (-150 to +150 °C) ±1 °C (-200 to -150.1 °C) ±1 °C (+150.1 to +1000 °C)
Resolution	0.1 °C (-40 to +150 °C)	0.01 °C (-99.9 to +300 °C) 0.1 °C (-200 to -100 °C) 0.1 °C (+300.1 to +800 °C)	0.1 °C (-200 to +1370 °C)	1 °C (0 to +1760 °C)	0.1 °C (-200 to +1000 °C)

Probe type	CO ₂ probe	CO probe	Mechanical	Current/voltage measurement	Current/voltage measurement
Meas. range	0 to +1 Vol. % CO ₂ 0 to +10000 ppm CO ₂	0 to +500 ppm CO	20 to 20000 rpm	0 to +20 mA (0554 0007) 0/4 to 20 mA (0554 0528)	0 to +10 V
Accuracy ±1 digit	See probe data	±5% of mv (0 to +500 ppm CO)	±1 digit	±0.04 mA (0 (0554 0007) to +20 mA) See probe (0554 0528) data	±0.01 V (0 to +10 V)
Resolution			1 rpm	0.01 mA (0 to +20 mA)	0.01 V (0 to +10 V)

Oper. temp.	0 to +50 °C
Storage temp.	-25 to +60 °C
Display	LCD, 4 lines
Battery type	1,5 V AA
Battery life	18 h
PC	RS232 interface
Weight	500 g
Material/Housing	ABS
Warranty	3 years
Memory	500.000

Memory space: 1 MB corresponding to approx. 500,000 readings
Other features: automatic probe recognition
Power: Battery/rech. battery, alternatively 8 V mains unit
Battery life in continuous operation with 2 T/C probes

testo 400
Suitable probes at a glance

Probes Type K (NiCr-Ni)	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Super quick-action immersion/penetration probe for measurements in gases and liquids with a low-mass tip	<p>150 mm Ø 1.4 mm 20 mm Ø 0.5 mm</p> <p>Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required</p>	-200 to +600 °C	Class 1*	1 s	0604 9794
Thermocouple, made of fibre-glass insulated thermal pipes, pack of 5	<p>2000 mm Ø 0.8 mm</p> <p>Please order adapter 0600 1693</p>	-200 to +400 °C	Class 1*	5 s	0644 1109
Quick-action surface probe with sprung thermocouple strip, measuring range short-term to +500 °C	<p>150 mm Ø 10 mm</p> <p>Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required</p>	-200 to +300 °C	Class 2*	3 s	0604 0194
Super quick-action surface probe, probe tip at 90° angle, with sprung thermocouple strip	<p>100 mm Ø 10 mm</p> <p>Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required</p>	-200 to +300 °C	Class 2*	3 s	0604 0994
Robust surface probe	<p>150 mm Ø 4 mm</p> <p>Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required</p>	-200 to +600 °C	Class 1*	25 s	0604 9993
Robust surface probe with sprung thermocouple strip for high temperature range up to +700°C	<p>200 mm Ø 15 mm</p> <p>Conn.: Fixed cable, coiled</p>	-200 to +700 °C	Class 2*	3 s	0600 0394
Roller surface probe for measurements on rollers and rotating drums, max. circumferential velocity 18 to 400m/min	<p>274 mm Ø 33 mm</p> <p>Conn.: Fixed cable, coiled</p>	-50 to +240 °C	Class 2*		0600 5093
Magnetic probe, adhesive power approx. 20 N, with magnets, for measurements on metal surfaces	<p>35 mm Ø 20 mm</p> <p>Conn.: Fixed cable</p>	-50 to +170 °C	Class 2*		0600 4793
Magnetic probe, adhesive power approx. 10 N, with magnets, for higher temperatures, measures on metal surfaces	<p>75 mm Ø 21 mm</p> <p>Conn.: Fixed cable</p>	-50 to +400 °C	Class 2*		0600 4893
Adhesive thermocouple, pack of 2, carrier material: aluminium foil Is fixed at the measuring point using conventional adhesives or silicone heat paste 0554 0004	<p>Diameter extension 2 x 0.2 mm, 0.1 mm thick</p>	-200 to +200 °C	Class 1*		0644 1607
Fast response immersion/penetration probe	<p>150 mm Ø 3 mm</p> <p>Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required</p>	-200 to +400 °C	Class 1*	3 s	0604 0293
Super quick-action immersion/penetration probe for measurements in liquids	<p>150 mm Ø 1.5 mm</p> <p>Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required</p>	-200 to +600 °C	Class 1*	1 s	0604 0493
Super quick-action immersion/penetration probe for high temperatures	<p>470 mm Ø 1.5 mm</p> <p>Conn.: Plug-in head. connection cable 0430 0143 or 0430 0145 required</p>	-200 to +1100 °C	Class 1*	1 s	0604 0593
Robust immersion/penetration probe made of V4A stainless steel, waterproof and oven-proof, e.g. for the food sector	<p>150 mm Ø 3.5 mm Ø 3 mm</p> <p>Conn.: Fixed cable</p>	-200 to +400 °C	Class 1*	3 s	0600 2593
Smelting probe for measurements in non-ferrous melting baths, with exchangeable measuring tip	<p>1100 mm Ø 6.5 mm</p> <p>Conn.: Fixed cable</p>	-200 to +1250 °C	Class 1*	60 s	0600 5993
Pipe wrap probe for pipes up to 2" in diameter	<p>35 mm 15 mm</p> <p>Conn.: Fixed cable</p>	-60 to +130 °C	Class 2*	5 s	0600 4593
Spare meas. head for pipe wrap probe, TC Type K	<p>15 mm</p>	-60 to +130 °C	Class 2*	5 s	0602 0092

* According to standard EN 60584-2, the accuracy of Classes 1 / 2 refer to -40 to +1000/+1200 °C.

Probes Type K (NiCr-Ni)	Illustration	Meas. range	Accuracy	t99	Part no.
Plug-in measuring tip, 750mm long, flexible, for high temperatures, outer casing: stainless steel 1.4541	750 mm Ø 3 mm Please order handle with Part no. 0600 5593	-200 to +900 °C	Class 1**	4 s	0600 5393
Plug-in measuring tip, 550mm long, flexible, for high temperatures, outer casing: Inconel 2.4816	550 mm Ø 3 mm Please order handle with Part no. 0600 5593	-200 to +1100 °C	Class 1**	4 s	0600 5793
Plug-in measuring tip, 1030mm long, flexible, for high temperatures, outer casing: Inconel 2.4816	1030 mm Ø 3 mm Please order handle with Part no. 0600 5593	-200 to +1100 °C	Class 1**	4 s	0600 5893
Probes Pt100	Illustration	Meas. range	Accuracy	t99	Part no.
Standard air probe	150 mm Ø 3 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	-200... +600 °C	Class A***	75 s	0604 9773
Precision air probe	150 mm Ø 3 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	-100 to +400 °C	1/10 Class B (0 to 100°C) 1/5 Class B (rem. range) to EN 60751***	75 s	0628 0017
Robust surface probe	150 mm Ø 4 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	-50 to +400 °C	Class B***	40 s	0604 9973
Velcro probe for pipes with diameter of max. 75 mm	280 mm Conn.: Fixed cable	-50 to +150 °C	Class B***	40 s	0628 0019
Standard immersion/penetration probe	200 mm Ø 3 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	Stainless Steel -200 to +400 °C	Class A***	20 s	0604 0273
Standard immersion/penetration probe	200 mm Ø 3 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	Nickel -200 to +550 °C	Class A***	20 s	0604 0274
Highly accurate immersion/penetration probe incl. certificate	295 mm Ø 4 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	Stainless Steel -40 to +300 °C	±0.05 °C (+0.01 to +100 °C) ±(0.05 °C ±0.05% of mv) (-40 to 0 °C) ±(0.05 °C ±0.05% of mv) (+100.01 to +300 °C)	60 s	0614 0240
Highly accurate immersion/penetration probe	200 mm Ø 3 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	-100 to +400 °C	1/10 Class B (0 to 100°C) 1/5 Class B (rem. range) to EN 60751***	30 s	0628 0015
Flexible precision immersion probe, cable heat-proof up to +300°C	1000 mm Ø 3.5 mm Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	50 mm Ø 6 mm -100 to +265 °C	1/10 Class B (0 to 100°C) 1/5 Class B (rem. range) to EN 60751***	80 s	0628 0016
Robust immersion/penetration probe with sharpened measuring tip, waterproof and oven-proof	150 mm Ø 3.5 mm Conn.: Fixed cable	Ø 3 mm -200 to +400 °C	Class A***	30 s	0604 2573
*with EEPROM: Precision adjustment for each probe at a measuring point; measuring range limits are saved in probe; t95 extrapolation; surface allowance in surface probe can be adapted to measuring task					
**According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C.					
***According to standard EN 60751, the accuracy of Class A and B refer to -200 to +600 °C.					
Probes NTC	Illustration	Meas. range	Accuracy	t99	Part no.
Highly accurate air probe for air and gas temperature measurements with bare, mechanically protected sensor	150 mm Ø 9 mm Conn.: Fixed cable	-40 to +130 °C	To UNI curve	60 s	0610 9714
Globe thermometer to measure radiant heat	Ø 150 mm Conn.: Fixed cable	0 to +120 °C	±0.5 °C (0 to +49.9 °C) ±1 °C (+50 to +120 °C) Accuracy corresponds to ISO 7243, ISO 7726, DIN EN 27726, DIN 33403 requirements		0554 0670

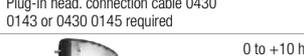
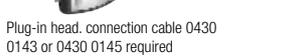
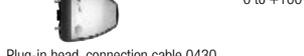
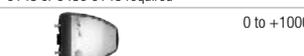
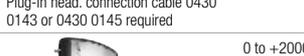
testo 400
Suitable probes at a glance

More probes	Illustration	Meas. range	Accuracy	Part no.
Ambient CO probe, for detecting CO in buildings and rooms	 Conn.: Fixed cable, 1.5 m	0 to +500 ppm CO	±5% of mv (+100.1 to +500 ppm CO) ±5 ppm CO (0 to +100 ppm CO)	0632 3331
CO ₂ probe measures indoor air quality and monitors the workplace. With plug-in head, connection cable 0430 0143 or 0430 0145 required	 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	0 ... +1 Vol. % CO ₂ 0 ... +10000 ppm CO ₂	±(50 ppm CO ₂ ±2% of mv)(0 to +5000 ppm CO ₂) ±(100 ppm CO ₂ ±3% of mv)(+5001 to +10000 ppm CO ₂)	0632 1240
Mechanical rpm probe with plug-in head Included	 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	20 to 20000 rpm	±1 digit	0640 0340
2 probe tips Ø 8 and Ø 12 mm 1 hollow cone Ø 8 mm 1 surface speed disc Ø 19 mm to measure rotational speed: rpm = rotational speed in mm/s				
Current/voltage cable (±1 V, ±10 V, 20 mA)		0 to +1000 mV 0 to +10 V 0 to +20 mA	±1 mV (0 to +1000 mV) ±0.01 V (0 to +10 V) ±0.04 mA (0 to +20 mA)	0554 0007
4 to 20 mA interface for connection and intermittent power supply to transmitters (scaling via hand-held instrument), in robust metal housing with impact protection, incl. magnet for fast attachment	 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required	0/4 to 20 mA	±0.04 mA Channels: 1 channel, transmitter connection via terminal board Auxiliary energy output: 18V DC ± 20% max. connection load: 30 mA	0554 0528

Accessories	Part no.
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument, PUR coating material	0430 0143
Cable, 5 m long, connects probe with plug-in head to measuring instrument, PUR coating material	0430 0145
Extension cable, 5 m long, between plug-in head cable and instrument, PUR coating material	0409 0063
Telescopic handle, max. 1 m, for probe with plug-in head, cable: 2.5 m long, PUR coating material	0430 0144
Adapter to connect NiCr-Ni thermocouples and probes with open wire ends	0600 1693
Handle for plug-in measuring tip	0600 5593
Silicone heat paste (14g), T _{max} = +260°C, improves heat transfer in surface probes	0554 0004
Spare measuring tip for smelting probe	0363 1712

Humidity probes	Illustration	Meas. range	Accuracy	t ₉₉	Part no.
Standard ambient air probe up to +70°C	 Ø 12 mm Plug-in head, connection cable 0430 0143 or 0430 0145 required	0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH) ±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	12 s	0636 9740
Duct humidity/temperature probe Telescopic handle 0430 9715, see Ordering data/Accessories	 180 mm Ø 12 mm Fixed cable	0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH) ±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	12 s	0636 9715
Thin humidity probe incl. 4 attachable protection caps for ambient air measurements, measurements in exhaust air ducts and equilibrium moisture measurements	 250 mm Ø 4 mm Plug-in head, connection cable 0430 0143 or 0430 0145 required	0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH) ±0.4 °C (-10 to +50 °C) ±0.5 °C (-20 to -10.1 °C) ±0.5 °C (+50.1 to +70 °C)	15 s	0636 2130
Highly accurate reference humidity/temp. probe	 Ø 21 mm Plug-in head, connection cable 0430 0143 or 0430 0145 required	0 to +100 %RH -20 to +70 °C	±1 %RH (+10 to +90 %RH)* ±2 %RH (remaining range) * ±0.2 °C (+10 to +40 °C) ±0.4 °C (remaining range)	12 s	0636 9741
Humidity/temperature probe	 Ø 21 mm Plug-in head, connection cable 0430 0143 or 0430 0145 required	0... +100 %RH -20 to +70 °C	±2 %RH (+2... +98 %RH) ±0.4 °C (+0.1 to +50 °C) ±0.5 °C (-20 to 0 °C) ±0.5 °C (+50.1 to +70 °C)	12 s	0636 9742

* in the temperature range from +15°C to +30°C

Probes	Process humidity	Illustration	Meas. range	Accuracy	t99	Part no.		
Standard pressure dew point probe for measurements in compressed air systems		300 mm	0 to +100 %RH -30 to +50 °C tpd	±0.9 °C tpd (+0.1 to +50 °C tpd) ±1 °C tpd (-4.9 to 0 °C tpd) ±2 °C tpd (-9.9 to -5 °C tpd) ±3 °C tpd (-19.9 to -10 °C tpd) ±4 °C tpd (-30 to -20 °C tpd)	300 s	0636 9840		
Precision pressure dew point probe for measurements in compressed air systems incl. cert. with test point -40 °C tpd		300 mm	0 to +100 %RH -60 to +50 °C tpd	±0.8 °C tpd (-4.9 to +50 °C tpd) ±1 °C tpd (-9.9 to -5 °C tpd) ±2 °C tpd (-19.9 to -10 °C tpd) ±3 °C tpd (-29.9 to -20 °C tpd) ±4 °C tpd (-40 to -30 °C tpd)	300 s	0636 9841		
High humidity level probe w/ heated sensor element, no humidity on sensor		300 mm Ø 12 mm	0 to +100 %RH -20 to +85 °C	±2.5 %RH (0 to +100 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (-20 to -10.1 °C) ±0.5 °C (+50.1 to +100 °C)	30 s	0636 2142	
Robust high temperature/humidity probe up to +180 °C		300 mm Ø 12 mm	0 to +100 %RH -20 to +180 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (+0.1 to +50 °C) ±0.5 °C (remaining range)	30 s	0628 0021	
Flexible humidity probe (does not retain shape) for measurements in inaccessible places		1500 mm 100 mm Ø 12 mm	0 to +100 %RH -20 to +180 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (+0.1 to +50 °C) ±0.5 °C (-20 to 0 °C) ±0.5 °C (+50.1 to +180 °C)	30 s	0628 0022	
Probes Material and equilibrium moisture		Illustration	Meas. range	Accuracy	t99	Part no.		
Flexible humidity probe with mini module for meas. e.g. on material testing rigs, module cable length 1500mm, probe tip 50x19x7mm		1500 mm 50x19x7 mm	0 to +100 %RH -20 to +125 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	20 s	0628 0013	
Sword probe for measuring humidity and temperature in stacked material		320 mm 18 mm x 5 mm	0 to +100 %RH -20 to +70 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (-20 to -10.1 °C) ±0.5 °C (+50.1 to +70 °C)	12 s	0636 0340	
Robust humidity probe e.g. for measuring equilibrium moisture or for measurements in exhaust ducts to +120 °C		300 mm Ø 12 mm	0 to +100 %RH -20 to +120 °C	±2 %RH (+2 to +98 %RH)	±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)	30 s	0636 2140	
Material moisture probe					Free scaling, reference measurement, no water level		0636 0365	
Material/building moisture cable			0 to 100 k Ohm = 100 to 0 %		Display values in instrument display mean: 100 to 66 wet; 0 to 1 very dry		0636 0565	
Probes aw value		Illustration	Meas. range	Accuracy	t99	Part no.		
aw value set: pressure-tight precision humidity probe with certificate, measurement chamber and 5 sample bowls (plastic)			0 to +1 aW 0 to +100 %RH -20 to +70 °C	±0.01 aW (+0.1 to +0.9 aW) ±0.02 aW (+0.9 to +1 aW)	±0.4 °C (-10 to +50 °C) ±0.5 °C (remaining range)		0628 0024	
Pressure probes		Illustration	Meas. range	Accuracy	Overload	Static pressure	Zeroing	Part no.
Precision pressure probe, 100 Pa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)			0 to +100 Pa	±(0.3 Pa ±0.5% of mv)	50 hPa	100 hPa	up to 20 Pa	0638 1347
Pressure probe, 10 hPa, in robust metal housing with impact protection incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)			0 to +10 hPa	±0.03 hPa	50 hPa	1000 hPa	to 0.4 hPa	0638 1447
Pressure probe, 100 hPa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)			0 to +100 hPa	±0.5% of mv (+20 to +100 hPa) ±0.1 hPa (0 to +20 hPa)	300 hPa	1000 hPa	to 4 hPa	0638 1547
Pressure probe, 1000 hPa, measures differential pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment			0 to +1000 hPa	±1 hPa (0 to 200 hPa) ±0.5% of mv (200 to 1000 hPa)	2000 hPa	1000 hPa	to 20 hPa	0638 1647
Pressure probe, 2000 hPa, measures differential pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment			0 to +2000 hPa	±2 hPa (0 to 400 hPa) ±0.5% of mv (400 to 2000 hPa)	3000 hPa	1000 hPa	to 40 hPa	0638 1747
Pressure probe, 2000 hPa, measures absolute pressure, in robust metal housing with impact protection, incl. quick-closing coupling (M8 x 0.5), magnet for fast attachment			0 to +2000 hPa	±5 hPa (0 to +2000 hPa)	4000 hPa	-	-	0638 1847

testo 400
Suitable probes at a glance

Relative pressure probes	Illustration	Meas. range	Accuracy	Overload	Zeroing	Part no.
Low pressure probe, refrigerant-proof stainless steel, up to 10 bar	 Plug-in head, connection cable 0409 0202 required	-1 to +10 bar	±1% of fsv Overload 25 bar	25 bar	to 0,1 bar	0638 1741 screw-in thread 7/16" UNF
High pressure probe, refrigerant-proof stainless steel, up to 30 bar	 Plug-in head, connection cable 0409 0202 required	-1 to +30 bar	±1% of fsv Overload 120 bar	120 bar	to 0,3 bar	0638 1841 screw-in thread 7/16" UNF
High pressure probe, refrigerant-proof stainless steel, up to 40 bar	 Plug-in head, connection cable 0409 0202 required	-1 to +40 bar	±1% of fsv Overload 120 bar	120 bar	to 0,4 bar	0638 1941 screw-in thread 7/16" UNF
High pressure probe, refrigerant-proof stainless steel, up to 100 bar	 Plug-in head, connection cable 0409 0202 required	-1 to +100 bar	±1% of fsv Overload 250 bar	250 bar	to 1 bar	0638 2041 Screw-in thread 7/16" UNF
High pressure probe, refrigerant-proof stainless steel, up to 400 bar	 Plug-in head, connection cable 0409 0202 required	-1 to +400 bar	±1% of fsv Overload 600 bar	600 bar	to 4 bar	0638 2141 Screw-in thread 7/16" UNF

Caps for humidity probes Ø 12mm and 21 mm	Illustration	Part no.
Metal protection cage, Ø 12 mm for humidity probes, material: stainless steel V4A. Quick adjustment time, robust and temperature-proof. Used when measuring velocities of less than 10 m/s.		0636 9740, 0636 9715 0554 0755
Cap with wire mesh filter, Ø 12 mm		All humidity probes with Ø 12 mm 0554 0757
PTFE sintered filter, Ø 21 mm, PTFE. Not affected by condensation, water-repellent, resistant to corrosive substances. Applications: compressed air measurements, high humidity range (continuous measurements), high flow velocities		All humidity probes with Ø 21 mm 0554 0666
Sintered PTFE filter, Ø 12 mm material PTFE. Favourable behaviour in condensation, water repellent, high resistance to aggressive media. Applications: Compressed air measurements, high humidity range (long-term measurements), high flow velocities.		0636 9769, 0636 9740, 0636 9715 0554 0756
PTFE sintered filter, Ø 12 mm, PTFE. Not affected by condensation, water-repellent, resistant to corrosive substances. Applications: compressed air measurements, high humidity range (continuous measurements), high flow velocities		0628 0021, 0628 0022, 0636 2140, 0636 2142 0554 0758
Stainless steel sintered cap, Ø 21 mm, can be screwed onto humidity probe protection in case of high mechanical load and high velocities		All humidity probes Ø 21 mm 0554 0640
Stainless steel sintered cap, Ø 12 mm, material: stainless steel V2A. Very rugged, suitable for penetration, can be cleaned with compressed air, mechanical sensor protection. Applications: High mechanical loads, high flow velocities.		0636 9740, 0636 9715 0554 0647
PTFE cap, Ø 5 mm, attachable, PTFE material, (5 off). Applications: dust protection, high humidity level measurements, high flow velocities		0636 2130 0554 1031

Accessories: Humidity probes	Part no.	Accessories: Pressure probes	Part no.
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument PUR coating material	0430 0143	Connection cable, 2.5 m long, for pressure probes 0638 1741/1841/1941 PUR coating material	0409 0202
Cable, 5 m long, connects probe with plug-in head to measuring instrument PUR coating material	0430 0145	Cable, 1.5 m long, connects probe with plug-in head to meas. instrument PUR coating material	0430 0143
Extension cable, 5 m long, between plug-in head cable and instrument PUR coating material	0409 0063	Cable, 5 m long, connects probe with plug-in head to measuring instrument PUR coating material	0430 0145
Telescopic handle, max. 1 m, for probe with plug-in head cable: 2.5 m long, PUR coating material	0430 0144	Connection hose, silicone, 5m long max. load 700 hPa (mbar)	0554 0440
Adapter for surface humidity measurement, for humidity probes Ø 12 mm locates damp spots on walls, for example	0628 0012	Connection hose set, 2 x 1 m, coiled, incl. 1/8" screw connection pressure-tight up to 20 bar, for probe 0638 1647	0554 0441
Cap for bore holes, for humidity probe Ø 12 mm Measures equilibrium moisture in bore holes	0554 2140	Adapter for pressure probes, 1/2" outer thread, 1/4" inner thread	0699 3127
testo saline pots for control and humidity adjustment of humidity probes, 11.3 %RH and 75.3 %RH with adapter for humidity probe	0554 0660		

Vane probes	Illustration	Probe type	Meas. range	Accuracy	Part no.
Vane probe, Ø 12 mm, can be attached to handle 0430 3545 or telescopic handle 0430 0941	 180 mm Ø 12 mm	Vane	+0.6 to +20 m/s Oper. temp. -30 to +140 °C	±(0.2 m/s ±1% of mv) (+0.6 to +20 m/s)	0635 9443
Vane/temperature probe, Ø 16 mm, attachable to 0430 3545 handle or 0430 0941 telescopic handle	 180 mm Ø 16 mm	Vane Type K (NiCr-Ni)	+0.4 to +60 m/s -30 to +140 °C	±(0.2 m/s +1% of mv) (+0.4 to +40 m/s) ±(0.2 m/s +2% of mv) (+40.1 to +50 m/s)	0635 9540
Vane/temperature probe, Ø 25 mm, can be attached to 0430 3545 handle or 0430 0941 telescopic handle	 180 mm Ø 25 mm	Vane Type K (NiCr-Ni)	+0.4 to +40 m/s -30 to +140 °C	±(0.2 m/s ±1% of mv) (+0.4 to +40 m/s)	0635 9640
Bendable vane probe (can be bent by 90°), Ø 60 mm, attachable to handle 0430 3545 or telescopic handle 0430 0941, for meas. on ventilation outlets	 Ø 60 mm	Vane	+0.25 to +20 m/s Oper. temp. 0 to +60 °C	±(0.1 m/s ±1.5% of mv) (+0.25 to +20 m/s)	0635 9440
Bendable vane probe (can be bent by 90°), Ø 100 mm, attachable to handle 0430 3545 or telescopic handle 0430 0941, for measurements on ventilation outlets	 Ø 100 mm	Vane	+0.1 to +15 m/s Oper. temp. 0 to +60 °C	±(0.1 m/s ±1.5% of mv) (+0.1 to +15 m/s)	0635 9340
Vane probe, Ø 16 mm, for stationary assembly, 3 m cable (PVC)	 250 mm Ø 16 mm		+0.4 to +60 m/s Oper. temp. 0 to +70 °C	±(0.2 m/s ±1% of mv) (+0.4 to +60 m/s)	0628 0036
High temperature vane probe, Ø 25 mm, with handle for continuous measurements up to +350°C	 560 mm Ø 25 mm	Vane Type K (NiCr-Ni)	+0.6 to +20 m/s -40 to +350 °C	±(0.3 m/s ±1% of fsv) (+0.6 to +20 m/s)	0635 6045

Accessories: Vane probes	Part no.
Professional telescopic handle for plug-in vane probes, max. 1 m long	0430 0941
Extension for telescopic handle, 2 m long please also order the 0409 0063 extension cable	0430 0942
Handle for plug-in vane probes	0430 3545

Thermal probes	Illustration	Probe type	Meas. range	Accuracy	Part no.
Robust hot bulb probe, Ø 3 mm, for measurements in the lower velocity range, 2m cable (PVC)	 150 mm Ø 3 mm	Hot bulb NTC	0 to +10 m/s -20 to +70 °C	±(0.03 m/s ±5% of mv) (0 to +10 m/s)	0628 0035
Affordable, robust hot bulb probe, Ø 3 mm, for measurements in the lower velocity range, with handle	 150 mm Ø 3 mm	Hot bulb NTC	0 to +10 m/s -20 to +70 °C	±(0.03 m/s ±5% of mv) (0 to +10 m/s)	0635 1549
Robust hot bulb probe, Ø 3 mm, with handle and telescopic handle for measurements in the lower velocity range	 850 mm Ø 3 mm	Hot bulb NTC	0 to +10 m/s -20 to +70 °C	±(0.03 m/s ±5% of mv) (0 to +10 m/s)	0635 1049
Quick-action hot wire probe, Ø 10 mm, with telescopic handle, for measurements in the lower velocity range with direction recognition	 760 mm Ø 10 mm	Hot wire NTC	0 to +20 m/s -20 to +70 °C	±(0.03 m/s ±4% of mv) (0 to +20 m/s)	0635 1041
Thermal anemometer probe, Ø 10 mm, w. telescopic handle, measures air flow in lab fume cupboards to DIN EN 14175	 760 mm Ø 10 mm	Hot wire NTC	0 to +5 m/s 0 to +50 °C	±(0.02 m/s ±5% of mv) (0 to +5 m/s)	0635 1047

Differential pressure probes	Illustration	Probe type	Meas. range	Accuracy	Overload	Static pressure	Zeroing	Part no.
Precision pressure probe, 100 Pa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		Differential pressure probe	0 to +100 Pa	±(0.3 Pa ±0.5% of mv)	50 hPa	100 hPa	to 20 Pa	0638 1347
Pressure probe, 10 hPa, in robust metal housing with impact protection incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		Differential pressure probe	0 to +10 hPa	±0.03 hPa	50 hPa	1000 hPa	to 0,4 hPa	0638 1447
Pressure probe, 100 hPa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and flow speeds (in combination with Pitot tube)		Differential pressure probe	0 to +100 hPa	±0.5% of mv (+20 to +100 hPa) ±0.1 hPa (0 to +20 hPa)	300 hPa	1000 hPa	to 4 hPa	0638 1547

testo 400
Suitable probes at a glance

Prandtl's Pitot tubes	Illustration	Accuracy	Part no.
Pitot tube, 300 mm long, stainless steel, for measuring flow velocity	300 mm Ø 4 mm	Oper. temp. 0 to +600 °C	0635 2245
Pitot tube, 350 mm long, stainless steel, for measuring flow velocity	350 mm Ø 7 mm	Oper. temp. 0 to +600 °C	0635 2145
Pitot tube, 500 mm long, stainless steel, for measuring flow velocity	500 mm Ø 7 mm	Oper. temp. 0 to +600 °C	0635 2045
Pitot tube, 1000 mm long, stainless steel, for measuring flow velocity	1000 mm Ø 7 mm	Oper. temp. 0 to +600 °C	0635 2345

Straight Pitot tubes	Illustration	Probe type	Meas. range	Part no.
Pitot tube, stainless steel, 360 mm long, measures flow speed and temperature, for pressure probes 0638 1347/..1447/..1547	360 mm Ø 8 mm	Type K (NiCr-Ni)	-40 to +600 °C	0635 2040
Pitot tube, stainless steel, 500 mm long, measures flow speed and temperature, for pressure probes 0638 1347/..1447/..1547	500 mm Ø 8 mm	Type K (NiCr-Ni)	-40 to +600 °C	0635 2140
Pitot tube, stainless steel, 1000 mm long, measures flow speed and temperature, for pressure probes 0638 1347/..1447/..1547	1000 mm Ø 8 mm	Type K (NiCr-Ni)	-40 to +600 °C	0635 2240

Accessories: Pressure probes	Part no.
Connection hose, silicone, 5m long max. load 700 hPa (mbar)	0554 0440
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument PUR coating material	0430 0143

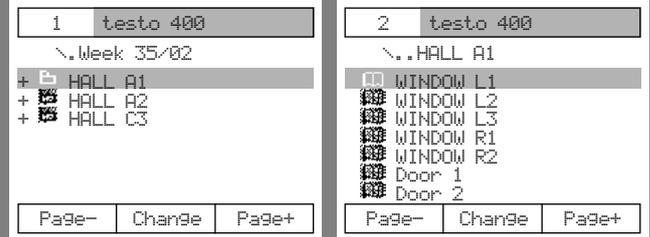
Comfort level measurement	Illustration	Probe type	Meas. range	Accuracy	Part no.
3-function probe for simultaneous measurement of temperature, humidity and velocity. With plug-in head, 0430 0143 connection cable required	270 mm Ø 21 mm	Hot bulb Testo humid. sensor, cap. NTC	0 to +10 m/s 0 to +100 %RH -20 to +70 °C	±(0.03 m/s ±5% of mv)(0 to 10 m/s) ±2 %RH (+2 to +98 %RH) ±0.4 °C (0 to +50 °C) ±0.5 °C (remaining range)	0635 1540
Comfort level probe for measuring degree of turbulence, with telescopic handle and stand. Fulfills EN 13779 requirements	890 mm Ø 90 mm	Hot wire NTC	0 to +5 m/s 0 to +50 °C	±(0.03 m/s ±4% of mv) (0 to +5 m/s) ±0.3 °C (0 to +50 °C)	0628 0009
Wet Bulb Globe temperature probe to assess workplaces subjected to heat, in accordance with ISO 7243 or DIN 33403, incl. WBGT case	Ø 150 mm		0 to +120 °C	In accordance with ISO 7243 or DIN 33403	0635 8888 ID No. 0699 4239/1

Accessories: 3-Function probe	Part no.
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument PUR coating material	0430 0143

structure - measure - print on-site

Structuring measurement data:

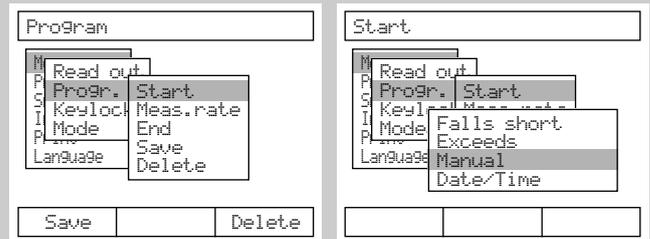
- Readings can be saved at individual locations - with guarantee of refinding.
- The "tree structure" - folders, sub-folders and measurement protocols - guarantees an uncomplicated overview.
- Practical additional information such as measurement information or required value input can be saved with the location.
- The locations can be selected via barcode labels using the pen.
- It is easy to draw an effective tour plan using the locations list.



Long-term control made easy:

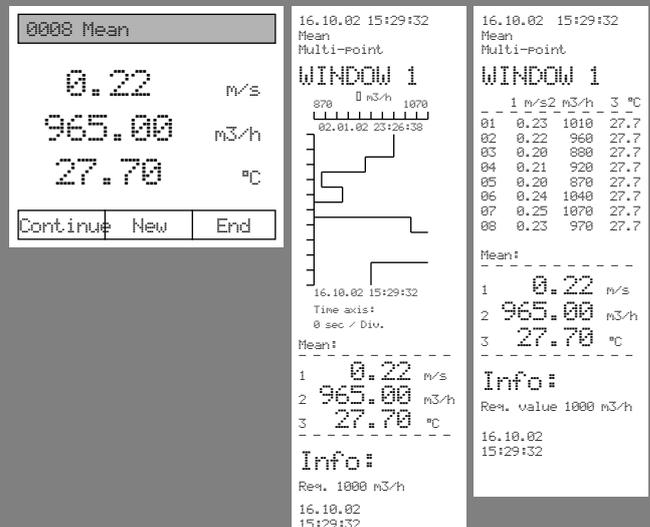
User-friendly data logging, not only for spot checks

- **The beginning of the measurement can be...**
 - determined manually each time.
 - activated if a user defined limit value is exceeded.
 - set according to date/time.
- **The measurement is completed when...**
 - the predefined number of readings is reached.
 - date/time is reached.
 - the memory is full.
 - ended manually.
- **Non-stop measurement via wrap-around memory...**
 - deletes the oldest respective value.
 - is deactivated manually.



Documentation on-site:

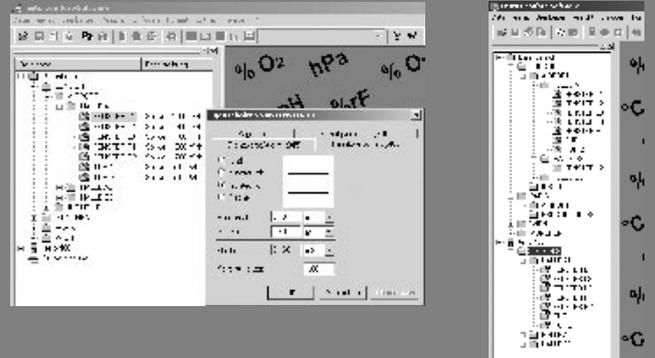
- The individual measurement protocol can be either saved or deleted following analysis.
- The printer immediately supplies the documentation required.
- The attachable comfort printer also offers graphical analysis options.
- Thermal paper for long-term legible measurement data documentation of up to 10 years.



prepare - analyse - file - document

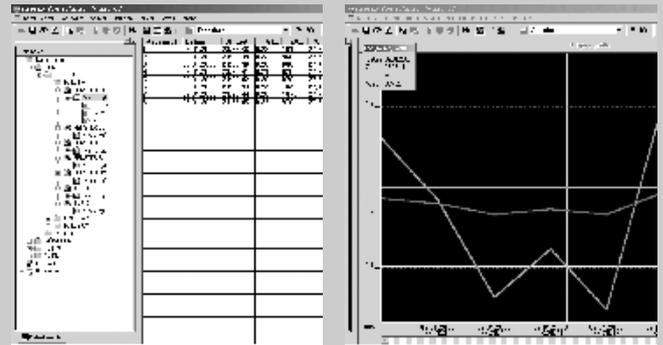
Easy reading management:

- Preparation of the measurement:
 - The measurement program is determined and loaded into instrument
 - Tour plan is drawn up based on locations and is loaded into instrument.
- The measuring instrument is downloaded once measuring is complete:
 - The saved protocols are conveniently filed via the software using "Drag & Drop" or are analysed in Data.
- The readings are determined using the measuring instrument and can also be displayed online using the software.



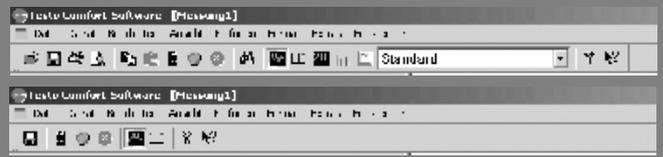
Comprehensive analysis, easy filing:

- Analysis:
 - with calculation functions
 - with crosshairs
 - with mean calculation
 - with calculation of standard deviation
 - taking all conventional refrigerants into consideration (refrigeration module, optional)
- Display:
 - as table or as graphic
 - as digit field or as histogram
 - with analog display
 - Measurement channels can be activated or deactivated at the touch of a button
- Documenting:
 - Data is transferred to Excel table using "Copy and Paste".



Individual configuration options:

- Your company logo can be included on the printouts.
- Functions can be selected from the function list and the finished profile can be saved.
- The online interface is available for LabVIEW software.
- Menu can be individually tailored to your needs.



ComSoft 3 - Professional for:

- Monitoring instrument testo 445
- Reference instruments testo 400 and 454

ComSoft 3 - Professional with data management
 incl. database, analysis and graphics function, data analysis, trend curve

Part no.
0554 0830

Accessories

RS232 cable
 connects instrument to PC (1.8 m) for data transfer

Part no.
 0409 0178

Testo fast printer

The universal printer with IRDA and infrared interface saves you time since it stores the print data prior to printing. Data transfer is completed within 2 seconds. The instrument is then immediately ready for operation.

The readings are saved black on white with date and time.

Testo fast printer with wireless infrared interface, 1 roll thermal paper and 4 AA batteries

Part no.
0554 0549

Versatile infrared printer for testo 435, 445, 400

- System compatibility with other Testo measuring instruments (also downward compatibility)
- Fast data transfer, the measuring instrument is ready for use again within 2 sec.
- Fast print function thanks to newest line printer
- Energy-saving Auto-off/Wake-up function
- Testo design with integrated magnetic plate
- Robust housing (adapted to testo 327)
- Mains operation possible (same mains unit as for testo 327/330)



Technical data

Printer type	infrared-controlled thermal printer, adjustable contrast, graphic-capable	Oper. temp.	0 to +50 °C
		Storage temp.	-40 to +60 °C
		Power supply	4 AA batteries 1.5 V (or rechargeables) Mains unit GV/1.2A
Reception radius	max. 2 m	Weight	430 g
Dimensions	147 x 77 x 47 mm		

Accessories

	Part no.
Spare thermal paper for printer (6 rolls)	0554 0569
Spare thermal paper for printer (6 rolls), measurement data documentation legible for up to 10 years	0554 0568
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610

Ethernet adapter

The new Ethernet adapter enables the following:

- On site measurements, e.g. in production, storage halls, Incoming Goods
- Measuring instrument remains on site, transport not necessary
- Data inspection from office or administration
- Centralised filing of measurement data

Ethernet offers:

- Fast transmission of readings
- Use of an existing network without additional cabling
- Long transmission distances
- Identification of measuring instruments in system network

Ethernet adapter, RS232 - Ethernet incl. software driver, mains unit facilitates data communication in network (not for use in Ex-zone)

Part no.
0554 1711

Access Ethernet with testo measuring instruments

Multi-point checks on site

Testo's handheld measuring instruments are used in production or in Incoming Goods to take spot checks on site. Using an Ethernet adapter, measurement data can be transmitted immediately to a central office which enables fast reaction times, if further actions are required.



Accessories	Part no.
System accessories: testo 400, testo 650, testo 950	
ComSoft 3 - Professional with data management, incl. database, analysis and graphics function, data analysis, trend curve	0554 0830
RS232 cable, connects instrument to PC (1.8 m) for data transfer	0409 0178

Technical data		Management and software configuration	Internet browser e.g. from Netscape or Microsoft Telnet
Dimensions	45 x 48 x 14 mm	Interface	Serial interface on computer board with terminal program
Oper. temp.	+0 to +70 °C		
Software	Microsoft Windows 2000 / NT 4.0 / ME / 98 / 95	Provision of a local virtual COM port (Windows systems)	
Power supply	Mains, 5 volt approx. 230 mA		
Humidity class	F to DIN 40040		
EMC	Radio interference and interference resistance		
Interface	25 pin RS 232 connection with 25/9pin adapter		
Logs	TCP/IP, LPR, Telnet, SNMP, DHCP DDNS, ARP, BOOTP, ICMP		



Testo: At Your Service

Please send for more information:

Monitoring Instruments for Food Production, Transport and Storage
Measurement Engineering for Restaurants, Catering and Supermarkets

Measurement Engineering for Air Conditioning and Ventilation

Measurement Engineering for Heating and Installation

Measurement Solutions for Emissions, Service and Thermal Processes

Measurement Solutions for Refrigeration Technology

Stationary Measurement Solutions – Transmitters and Monitoring Systems

Measurement Solutions for Production, Quality Control and Maintenance

Measurement Solutions for Climate Applications in Industry

Reference Measurement Technology for Industry

Measuring Instruments For Temperature

Measuring Instruments for Humidity

Measuring Instruments For Velocity

Measuring Instruments for Pressure and Refrigeration

Multi-Function Measuring Instruments

Measuring Instruments for Flue Gas and Emissions

Measuring Instruments for RPM, Analysis, Current/Voltage

Measuring Instruments For Indoor Air Quality, Light And Sound

Stationary Measurement Technology Humidity / Differential Pressure / Temperature / Process Displays

Stationary Measurement Technology Compressed Air Humidity / Compressed Air Consumption