

THE reference for air conditioning/ventilation units

testo 400

The precision measuring instrument from the reference class offers the professional user everything he needs to fulfill complicated measurement tasks.

- Thermal, vane and Pitot tube measurement
- Velocity, volume flow
- Humidity, pressure
- CO₂, rpm, current, velocity
- Temperature

Complex but not complicated

The instrument recognises the respective probe connected and shows the next possible steps in the display.

Measurement data processing with "Retrieval guarantee"

Filing is in a clear tree structure with "Retrieval guarantee" – in a large display and, of course, on your PC.

Data memory for monitoring processes

A data memory with up to 48,000 readings is available for long-term measurement. All relevant parameters such as start and finish of measurement, measurement intervals, limits exceeded and date/time can be programmed as required.

Assessment of measurement directly on site with built-in uncertainty calculation

Display with calculated degree of turbulence, mean air velocity and air temperature

testo 400

Multi-function measuring instrument, incl. battery and calibration protocol

Part no. 0563 4001



The coordinates required for the grid measurement are shown in the display. The depth data on the vane telescope makes your work much easier.

Velocity probes	Illustration	Meas. range	Accuracy	Part no.
Bendable vane probe (can be bent by 90°), Ø 100 mm, attachable to handle or telescopic handle, for measurements on ventilation outlets		+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/temperature probe, Ø 16 mm, attachable to handle or telescopic handle		+0.4 to +60 m/s -30 to +140 °C	±(0.2 m/s ±1% of mv) (+0.4 to +60 m/s)	0635 9540
Professional telescopic handle for plug-in vane probes, max. 1 m long, extension on request				0430 0941
Quick-action hot wire probe, Ø 10 mm, with telescopic handle, for measurements in the lower velocity range with direction recognition		0 to +20 m/s -20 to +70 °C	±(0.03 m/s ±4% of mv) (0 to +20 m/s)	0635 1041
Pitot tube measurement	Illustration	Meas. range	Accuracy	Part no.
Precision pressure probe, 100 Pa, in robust metal housing with impact protection, incl. magnet for fast attachment, to measure differential pressure and velocity speeds (in connection with Pitot tube)		0 to +100 Pa	±(0.3 Pa ±0.5% of mv)	0638 1347 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required
Pitot tube, 1000 mm long, stainless steel, measures velocity together with pressure probes 0638 1347		Oper. temp. 0 to +600 °C		0635 2345
Indoor Air Quality	Illustration	Meas. range	Accuracy	Part no.
Comfort level probe for measuring degree of turbulence, with telescopic handle and stand. Fulfills DIN 1946 Part 2 or EN 12 599 requirements		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
Ambient CO probe to measure CO level in ambient air		0 to +500 ppm CO	±5% of mv (+100.1 to +500 ppm CO) ±5 ppm CO (0 to +100 ppm CO)	0632 1247 Conn.: Fixed cable
CO ₂ probe measures indoor air quality and monitors the workplace. With plug-in head, connection cable 0430 0143 or 0430 0145 required		0 to +1 Vol. % CO ₂ 0 to +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 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required
Wet Bulb Globe temperature probe to assess workplaces subjected to heat, in accordance with ISO 7243 or DIN 33403, incl. WBGT case		0 to +120 °C	In accordance with ISO 7243 or DIN 33403	0635 8888 ID No. 0699 4239/1
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)	0636 9740 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required
Quick-action surface probe with sprung thermocouple strip, measuring range short-term to +500°C		-200 to +300 °C	Class 2 t ₉₉ 3 s	0604 0194 Conn.: Plug-in head, connection cable 0430 0143 or 0430 0145 required

For professional assessors

The testo 400 with the VAC module is currently the only measurement system in the world with which a fast and objective assessment of the functionality of a VAC system is possible without the need for additional manual calculations.

Of course, the measurement stipulations are based on the EN Standard 12599 as well as the Ashrae Standard USA.

The measurement technician always has one hand free. Site data, such as location name, measurement coordinates, duct area, offset factor etc. is read automatically into the measuring instrument via the barcode reader.

The measurement data saved in testo 400 is uploaded to the PC at the touch of a button. Time-consuming manual written work will now be a thing of the past, the required calculations are completed automatically by testo 400. Measurement results are documented in an EN standardised layout.

Draught and comfort (IAQ)

Draught air is the most common cause for complaint with respect to ambient conditions. The comfort probe, which is independent of direction, has been designed especially to assess draughts.

The mean air velocity alone is not sufficient to assess the effect on humans. Temporal fluctuations in ambient air velocity is of particular interest. One measure of this is the degree of turbulence required in the corresponding standards and guidelines. This is calculated automatically by testo 400.

- Avoid draughts in workplaces
- Measure ambient air velocity in

air-conditioned rooms in accordance with DIN 1946 Part 2, ISO 7726

- Automatic calculation of the degree of turbulence
- Fulfills the accuracy requirements of the DIN 1946 Part 2, EN 12 599, ISO 7726

Accessories for measuring instrument/probes	Part no.
Rechargeable battery set for instrument (4 rechargeables 2.4V/700mAh), Selected for quick recharging in instrument	0554 0196
Power unit 230 V/ 8 V/ 1 A, for instrument (European plug). For mains operation and battery recharging	0554 1084
Car charging adapter, ready to measure following recharging in car, Battery is recharged while travelling in car	0554 0424
Connection hose, silicone, 5m long, Max. load 700 hPa (mbar)	0554 0440
Software and Accessories	Part no.
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

Recommended Set: The assessor case for fast assessment of an air conditioning/ventilation unit	
Multi-function measuring instrument, incl. battery and calibration protocol	0563 4001
Memory upgrade to 500,000 readings, Upgrades memory capacity (by Service)	0554 9481
VAC module upgrade, Volume flow calculation in ducts with error calculation function in instrument	0450 4010
ComSoft 3 - Professional with data management, Incl. database, analysis and graphics function, data analysis, trend curve	0554 0830
VAC module upgrade, PC software, (for ComSoft 3 software), Printout of standard measurement protocols	0554 4030
RS232 cable, Connects instrument to PC (1.8 m) for data transfer	0409 0178
Bendable vane probe (can be bent by 90°), Ø 100 mm, attachable to handle or telescopic handle, for measurements on ventilation outlets	0635 9340
Vane/temperature probe, Ø 16 mm, attachable to handle or telescopic handle	0635 9540
Professional telescopic handle for plug-in vane probes, max. 1 m long, extension on request	0430 0941
Quick-action hot wire probe, Ø 10 mm, with telescopic handle, for measurements in the lower velocity range with direction recognition	0635 1041
Precision pressure probe, 100 Pa, measures differential pressure, in robust metal housing with impact protection, incl. magnet for fast attachment	0638 1347
Pitot tube, 1000 mm long, stainless steel, measures velocity together with pressure probes 0638 1347	0635 2345
Attachable printer (securely attached) including 1 roll of thermal paper and batteries, Quickly prints readings on location	0554 0570
SoftCase (protects instrument from impact) with carrier strap, magnetic holder and probe holder, Protects against impact and falls	0516 0401
SoftCase for attachable printer (protects printer from dirt/impact), Protects from impact and falls	0516 0411
System case (aluminium) for measuring instrument, probes and accessories, Probes in lid make it easy to find parts in case	0516 0410

Recommended Set: The Set for measuring draught and comfort level (IAQ)	
Multi-function measuring instrument, incl. battery and calibration protocol	0563 4001
Comfort level probe for measuring degree of turbulence, with telescopic handle and stand. Fulfills DIN 1946 Part 2 or EN 12 599 requirements	0628 0009
Attachable printer (securely attached) including 1 roll of thermal paper and batteries	0554 0570
Ambient CO probe to measure CO level in ambient air, To measure safe CO level	0632 1247
CO2 probe measures indoor air quality and monitors the workplace. With plug-in head, connection cable 0430 0143 or 0430 0145 required	0632 1240
Wet Bulb Globe temperature probe to assess workplaces subjected to heat, ID No. 0699 in accordance with ISO 7243 or DIN 33403, incl. WBGT case	0635 8888 4239/1
Cable, 1.5 m long, connects probe with plug-in head to meas. instrument, PUR coating material	0430 0143
Standard ambient air probe up to +70°C, Measures all physical parameters in the Mollier diagram	0636 9740
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, PUR coating material	0430 0143

Printer and Accessories	Part no.
Attachable printer (securely attached) including 1 roll of thermal paper and batteries	0554 0570
Testo printer with cordless IRDA and infrared interface, 1 roll of thermal paper and 4 round batteries, For printout of reading on site	0554 0547
Softcase for instrument and printer	Part no.
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
System case	Part no.
System case (plastic) for measuring instrument, probes and accessories, Probes in lid make it easy to find parts in case	0516 0400