

Professional Measurement Solutions: an Overview.



Testo. Expertise in precision.

The demands placed on practice-oriented measurement solutions are becoming more and more complex and individual. Recognizing exactly these customers' demands is therefore a central task, as is the constant attention paid to new technologies: Testo carries out its own research, and because of this, assumes a pace-setting rôle in the market. Real innovations in the area of sensor technology, but also progress in microelectronics, measurement data storage or communication with other media such as PCs and Pocket PCs benefit all Testo customers.

This combination of years of practice and closeness to the customer, with attention to theory – also in the area of fundamental research – raises the usefulness of Testo measurement solutions for all our customers, and commits to the future.

Testo offers perfected measuring instrument variants and services for a broad range of applications. With roughly 2300 employees, 31 subsidiaries and over 80 distribution partners, Testo is represented on all continents.

Research at Testo

Employees from all disciplines: physics, chemistry, electronics, process technology and micromechanics carry out applied research in sensor and measurement technology. Testo is involved in cooperation with universtities, works closely with national institutes and is represented in a number of committees dealing with innovative sensor technology world wide.

Further training and qualification

To remain a market leader, one needs not only excellent products, one must also be able to adapt to change quickly. Against this background, the topic of further training and qualification plays a crucial part at Testo – internally and externally.

One of the most important prerequisites for fulfilling complex measurement tasks and increasing demands on quality is that one's knowledge is always up-to-date.

On the one hand, this involves being able to provide the user with practice-oriented training and seminars, on the other hand the intensive training of one's own staff.





Qualified service

Testo offers competent and fair consultation in all questions to do with measurement technology. After sale, we guarantee the user fast help – world-wide.

We are a market leader because we take all the services involving the product seriously: service, support, availability – we commit ourselves before sale, after sale and in all phases of application. We won't let you down.

Certified assuredness

There is no room for error in quality assurance. That is why Testo Industrial Services offers certified calibration in accordance with all valid guidelines (such as ISO 9000ff, QS 9000, DAkkS, ÖKD, Cofrac, NIST, GMP, HACCP, FDA etc.) and various services. The calibration takes place in our own accredited high-tech laboratories.

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Controlled freshness.

In the food sector, different logistical tasks must act together to ensure that cold chains remain uninterrupted, and that product temperature and ambient conditions are monitored and documented. Testo provides the technology needed to fulfil these requirements. Irrespective of whether

The electronic deep-fryer oil tester is a real highlight, providing reliable information within a few seconds about the degree to which the oil is used up.



for spot checks or continuous measurement, whether core, surface or room temperatures, or other parameters such as pH values or humidity are to be measured.

Measurement solutions for practice

In cases of doubt, the freshness of foodstuffs and the digestibility of dishes are difficult to judge. Measurements can provide help making decisions. Testo measuring instruments, with optimized wireless or conventional probes not only cover a huge spectrum of different applications, they also provide pre-defined, clear user profiles and useful accessories for the respective application.

Documenting measurement parameters systematically

We provide system solutions, with which documentation tasks can be fulfilled very easily. A good example of these are the data loggers, with which temperature and humidity sequences can be recorded. The loggers collect up to 2 million data – readout is possible by simply conecting to a PC (mini USB or SD card) without additional interface



The right measuring instrument for every task

Alarm and logger thermometer

testo 735-2

- Connection of 3 plug-in probes and 3 wireless probes
- System accuracy up to 0.05 °C
- Instrument memory for up to 10,000 measure-
- PC software for archiving, analyzing and documenting measurement data
- Display, storage and printout of Delta T, min., max. and mean values





All-round thermometer

testo 926

- Fast probes for every application
- · Wireless measurement with radio probes possible
- Measurement data printout on site on Testo report printer
- TopSafe, the indestructible protectection case
- New parameter: °R (degree Réaumur)

Folding thermometer

testo 103 / testo 104

- testo 103 at 11 cm, the smallest folding thermometer in its class
- testo 104 waterproof (IP65) and robust
- testo 104 with illuminated display
- Especially robust probe
- Quickly to hand and always available
- · Easy to clean



testo 103: °C / testo 104: °C. °R

pH, °C



°C, %RH

Measurement data monitoring system

testo Saveris

- · Measurement and documentation of temperature and humidity values in the environment and in processes
- Data transfer possible by wireless and Ethernet connection
- Automatic data collection and safe central data storage
- Comprehensive alarm management when limit values are exceeded
- · Conforms with food standard EN12830

pH tester

testo 206

- pH1 probe head for liquids
- pH2 probe head for soft foods
- · Combination: pH penetration tip with temperature measurement probe
- Maintenance-free gel electrolyte
- · Automatic full-scale value recognition
- Robust, water-proof TopSafe protectiive case



%TPM, °C

Deep-fryer oil measuring instrument

testo 270

- Robust sensor with sensor protection layer
- Two freely selectable quality limit values
- Alarm function: 3-colour LED (green, yellow, red)
- Automatic full-scale value recognition with %TPM
- Audible/optical alarm
- Robust, water-proof TopSafe protective case
- · Optional hand loop

Infrared temperature measurement

testo 831

- Non-contact measurement of surface temperature, ideally for the food sector
- 2-point laser measurement spot marker and 30:1 optics
- Exact measurement even at greater distances
- Large measuring range from -30 to +210 °C
- Hold function and display of min./max. values
- Two adjustable alarm limit values
- Also available as a set with the core thermometer testo 106





Temperature data logger (1-channel)

testo 175 T1

- · Professional temperature monitoring for refrigerated and deep-freeze rooms
- Compact data logger for long-term monitoring of temperature, e.g. during transport of goods

For a good climate.

Air conditioning and ventilation is a complex and varied field. The technical demands are high. Low energy consumption, high levels of operating safety, constant availability – at the same time, the air conditioning and ventilation of single rooms should be individually and promptly regulatable.

Testo offers the measurement technology required for this. Complete, for all measurement parameters. Our years of experience stand for practicable and efficient measurement solutions.

No-one offers more

Nowhere else is such a comprehensive selection of probes for all the parameters required in air conditioning technology to be found: Flow velocity, humidity, temperature Lux, sound, CO₂, CO and degree of turbulence.

In addition to classical probes with cables, wireless measurement up to a distance of 20 m (without obstructions) is possible. Damage to the cable or hindrance in usage are thus eliminated. The wireless probes are available for the parameters temperature and humidity. The optimal, easily plugged-in radio module can be retrofitted at any time.

The Testo calibration certificates provide absolute security – for whichever parameter. As regards calibration, Testo has taken over the rôle of a pace-setter on the market.





The right measuring instrument for every task

VAC analysis instrument

testo 480

- Digital probes with intelligent calibration concept
- SD card and USB interface
- Report creation via PC software "EasyClimate"
- Graphical display
- Trackpad
- IrDA printer interface



 $^{\circ}$ C, m/s, %RH, m³/h, hPa, Co $_{2}$, Lux



m³/h, m/s, CO₂, %RH, °C, ΔP, Lux, CO

All-round talent

testo 435

- Instrument memory for up to 10,000 measurement values
- PC software for analyzing, archiving and documenting the measurement data
- IAQ probe, Lux probe and Comfort Probe
- Vane measurement and integrated differential pressure probe for Pitot tube measurement
- · Wireless probes for temperature and humidity

Large area vane anemometer

testo 417

- Flow direction recognition
- Temperature, flow velocity and volume flow measurement
- Multi-point and timed mean value calculation
- Max./min. values
- Hold button to freeze the measurement values
- Funnel measurement (optional)



°C, m/s, m³/h

Total Control Control

°C, %RH

Measurement data monitoring system

testo Saveris

- Measurement and documentation of temperature and humidity values in the environment and in processes
- Data transfer possible by wireless and Ethernet connection
- Automatic data collection and safe central data storage
- Comprehensive alarm management when limit values are exceeded
- Additional parameters can be integrated via 0/4 to 20 mA, 0 to 1/5/10 V

Vane anemometer

testo 416

- Direct display of volume flow
- Mean value calculation by point and time
- Max./min. and Hold functions
- Display illumination
- Auto-off function
- TopSafe, protection of instrument from dirt and impact (optional)



m/s



hPa, m/s

Differential pressure measuring instrument

testo 512

- 8 pressure units selectable: kPa, hPa, Pa, mm H₂O, mmHg, psi, inch H₂O, inch Hg
- 2 flow velocity units selectable: m/s, fpm
- Tightness compensation integrated
- Display illumination
- Max./min. and Hold functions
- Printout of measurement values incl. date/time

Light intensity measuring instrument

testo 540

- Sensor adapted to spectral sensitivity of the eye
- Hold function and min./max. values
- Display illumination



Lux



°C, %RH

Indoor Air Quality monitoring instrument

testo 623

- Analysis of past temperature and humidity measurement values directly on site
- Histogram shows measurement results of the last 90 days
- All important values at a glance
- Large, optimally illuminated display

The benefits of digital manifolds.

Testo is again setting standards in refrigeration technology with the manifolds for measuring, recording, regulating and analyzing refrigeration systems and heat pumps.

What began with accurate and practical pressure and flow velocity measuring instruments and electronic manifolds for the refrigeration trade, now finds its technological

Among the most important characteristics are the recording and documentation of the values measured on site. They can be directly stored in the instrument and later transferred to a PC. Online measurement on site via a PC is also possible.



continuation in the manifolds testo 550, 557 and 570. The high-quality analyzers form a unit composed of highly accurate sensors for measuring pressure, vacuum, temperature (up to 3 temperatures simultaneously), current consumption, oil pressure and refrigerant filling quantities. The instruments have a 4-way valve block (testo 576 and testo 570). The large, backlit display digitally shows the pressure and the condensation and evaporation temperatures. There are over 30 refrigerant curves stored in the instrument, which can be updated free of charge via internet and software (testo 570). This makes the instrument family suitable for almost all refrigeration systems, and replaces the complicated mechanical manifolds.

Software "EasyKool"

The software "EasyKool" offers professional data administration on a PC, and thus optimum refrigerant management. Measurement values can be shown graphically as well as in tabular form. If all actions are recorded during commissioning, a commissioning report can be drawn up. Uninterrupted documentation of data over a defined period of time allows the causes of malfunctions to be objectively diagnosed.



Exactly the right measuring instrument for every application

Digital manifold

testo 550

- For all measurement tasks on refrigeration systems and heat pumps
- Calculation of superheating and subcooling in real time
- 2-way valve block with 3 connections
- Display illumination
- 39 refrigierants stored in instrument
- Display of MIN/MAX/MEAN



bar, psi, kPa, °C, °F

⟨Pa, °C, °F

Leakage detector for refrigerants

testo 316-4

- Optical and audible alarm
- Permanent sensor check

Infrared thermometer

- Easy change of sensor by the user
- Maximum indicator shows maximum leakages
- Earplug socket for secure localization of leakages in loud surroundings

g/a

Digital manifolds

testo 557

additionally to testo 550

- The ideal solution for commissioning, service and maintenance
- 4-way valve block with sight glass
- Integrated vacuum measurement for evacuation of systems
- Calculation of the evaporation temperature of water



kPa, mbar, micron, bar, psi, °C/°F



testo 830 T2

- With 2-point laser measurement point marking
- Possibility of connecting an external probe for contact measurement
- 12:1 optics allow accurate measurements over large distances

Digital manifold

testo 570

additionally to testo 550 and 557

- The professional solution for commissioning, service and maintenance
- Serial measurements up to 999h possible
- Optional software EasyKool
- Report printout on site



kPa, mbar, micron, bar, psi, °C/°F

-- 100 4 567 60

4 x external °C, °F

Long-term data logger

testo 176 T4

- Simultaneous temperature measurement at up to 4 different locations
- Memory up to 2 million measurement values
- Various thermocouple probes connectable (Type J, Type K, Type T)

Temperature measuring instrument (1-channel)

testo 110

- Wireless measurement with radio probes possible
- TopSafe, the indestructible protective case, protects fom dirt and impact (with TopSafe and fitted: IP65)
- Audible alarm (adjustable limit valuesr)
- Large, backlit display



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Temperature measuring instrument (2-channel)

testo 922

- 2-channel temperature measuring instrument with optional wireless probes
- Display of differential temperature
- TopSafe, the indestructible protective case, protects from dirt and impact
- Cyclic printout of measurement values, e.g. once per minute

°C

Combustion under control.

A new opportunity: The market for the supply of heating for buildings is changing. Solar energy systems, heat pumps, gas calorific value instruments, solid fuel combustion (pellet systems) and other technologies, integrated concepts for the provision of energy, as well as electronic control systems are becoming standard. The objectives remain: heat supply by demand, low energy consumption and minimal pollutant emission.

Every combustion plant must work optimally – irrespective of the technology used. This means regular checks and adjustment. Our contribution – we provide the best measurement technology. We closely follow developments, recognize trends and are thus able to offer fully developed applications very early.

Spoilt for choice?

Whichever gas analyzer you decide on, you can depend on the reliable functioning of the gas sensors, "the heart of the analyzer". This avoids susceptibility and corrosion. And your measurement results are immediately available thanks to modern interfaces (USB, IrDA, .BLUETOOTH®, infrared.) Easy and comprehensible operation, an ingenious measurement case system and practice-oriented accessories additionally facilitate your work – reliable, fast, professional.





Exactly the right measuring instrument for every requirement

Exhaust gas analyzer

testo 330 LL visualizes measurement data graphically

- Colour graphic display, self-explanatory graphics and symbols
- Extended measurement menus for comprehensive analysis
- · Logger function
- °C, hPa, O₂, CO₂ determination, ambient CO/CO₂ measurement, gas leak measurement, ΔT, P, Eta, qA, gas pipe testing
- Long sensor life up to 6 years, warranty 4 years
- USB interface
- BlmSchV menu, manual CO switch-off, qA mean value



°C, O₂, hPa, CO, Eta, qA, CO/H₂ (testo 327-2)

Exhaust gas analyzer

testo 327

- 4-line segment display
- TÜV approved
- Easy data documentation on site on Testo printer
- Store for 20 measurement data blocks (testo 327-2)
- Li-ion batteries (chargeable in instrument or charger)

Digital smoke tester

testo 308

- Digital measurement value display
- Single and threefold measurement acc. to BlmSchV (TÜV-tested)
- Li ion rech. battery (chargeable in and outside the instrument)
- Data transfer by infrared interface to the flue gas analyzer or printer
- Optional: BLUETOOTH® interface



Smoke count



hPa, I/h, ΔT, ΔP

Checking system for gas and water pipes

testo 31/

- Gas-tightness and load tests on gas pipes
- Pressure check on water pipes (high pressure measurement up to 25 bar)
- Fast determination of gas leak quantity (serviceability test)
- Safe detection of gas leaks with testo 316-1
- Evaluation software for the presentation of measurement sequences

Thermal imagers

testo 875, 876, 881, 882, 885, 890

- Excellent image quality with optional SuperResolution technology (up to 1280 x 960 pixels)
- Exchangeable lens for more flexibility
- Panorama image assistant for large measurement objects
- Professional analysis software for highquality thermography reports
- Measurement mode for the presentation of mould-risk areas



°C, %RH

CO

Carbon monoxide monitor

testo 317-3

- Warns of dangerous CO concentrations in the ambient air.
- No zero phase, instrument is ready for use immediately
- Settable alarm threshhold
- CO-zeroing at the measurement location
- Optical and audible alarm

Flue gas analyzer for emission measurement

testo 340

- Max. 4 gas sensors (pre-calibrated, can be changed by the user)
- \bullet Up to 3 freely selectable sensors (CO, CO $_{\rm low}$, NO, NO $_{\rm low}$, NO $_{\rm 2}$, SO $_{\rm 2}$
- Integrated differential pressure and flow velocity measurement
- Measurement range extension for one sensor, optionally for all sensors simultaneously



CO, CO_{low}, NO, NO_{low}, NO₂ and SO₂

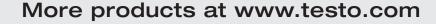


CH₄, C₃H₈, H₂

Electronic gas leak detector

testo 316-2

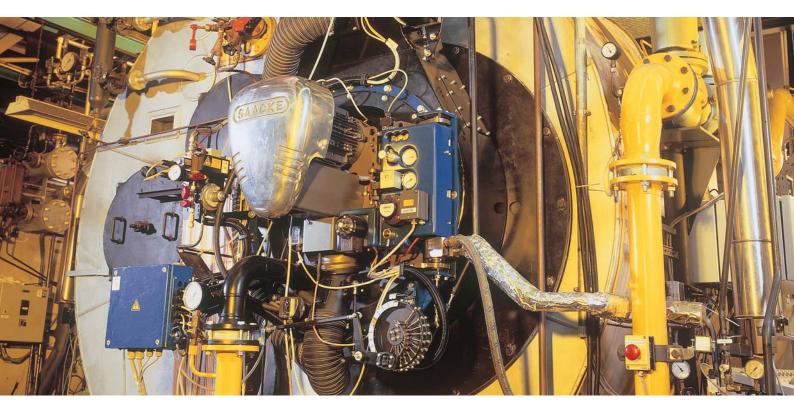
- Flexible measurement probe for inaccessible places
- Optical and audible alarm with bar display for increasing and dangerous gas concentrations
- Trend display shows maximum leakage
- Integrated pump
- Earphone connection for secure leakage localization in loud surroundings
- High duration of use thanks to rechargeable battery



Precise values for the sake of efficiency and the environment.

Modern emission analysis must fulfil a range of demands – Testo continuously adapts to these demands: from ongoing emission checks, via the setting and optimization of combustion plants up to process monitoring in thermal manufacturing. The adaptable exhaust gas analysis

- High accuracy (comparable with infrared or chemiluminescent technology from the area of stationary applications).
- Long-term measurements (quasi-stationary) from several hours to several weeks.



systems, which Testo has now been developing, producing and distributing for more than 30 years, focus not only on precision, but above all on practicability and handling.

Directly with the customer

The demands in the area of exhaust gas analysis are becoming more and more complex and individual – Testo has reacted to this, especially in the industrial customer segment: qualified Testo specialists analyze the requirement profile, design and define the optimum system solution.

For special use in industry

The exhaust gas analyzer family is especially tailored to the demands of industry:

- Versatile sampling probes for many different sampling locations.
- High to extreme measuring ranges for use in raw gas or in special furnace atmospheres.

The particular advantages excel in day-to-day use

The practice-oriented Testo instrument concept for emission measurement offers essential features: Precalibrated gas sensors with plug-in electronics, which are as easy to change as batteries, as well as the long working life of the sensors, which considerably reduces test gas calibration intervals. A further distinctive characteristic of the Testo instruments is the integrated Peltier gas preparation with a hose pump for condensate disposal.



Exactly the right measuring instrument for every requirement

Reference analyzer

testo 360

- Max. 7 gas sensors
- In terms of accuracy, fully compatible with stationary measurement technology
- Tested for suitability for all systems according to TI air, 13. and 17. BlmSchV
- Integrated, low absorbtion Peltier gas preparation
- Data logger function over several days and weeks



O₂, CO, NO, NO₂, SO₂, HC, CO₂ (NDIR), exhaust gas humidity



Compact exhaust gas analyzer

testo 340

- Max. 4 gas sensors (pre-calibrated, can be exchanged by user)
- \bullet Up to 3 selectable sensors (CO, CO $_{\rm low}$, NO, NO $_{\rm low}$, NO $_{\rm NO}$, SO $_{\rm 2}$
- Integrated differential pressure and flow velocity measurement
- Measuring range extension for one sensor, optionally for all sensors simultaneously

Portable exhaust gas measurement system

testo 350

- Max. 6 gas sensors (pre-calibrated, can be exchanged by user)
- Colour graphic display with user-specific menu and helpful instrument pre-settings
- Removable operating unit
- Measuring range extension for various gas sensors with selectable dilution factors
- Integrated Peltier gas preparation



O₂, CO, CO_{low}, NO, NO_{low}, NO₂, SO₂, H₂S, HC, CO₂ (NDIR)



Starter exhaust gas analyzer

testo 325-I_S02

- Exchange of sensors by the user
- Instrument protection thanks to removable condensate trap
- Measurement value printout on site incl. date and time
- Exhaust gas probe with 3 m hose

Portable exhaust gas analyzer

testo 350-MARITIME

- Measurement of flue gas emissions according to MARPOL Annex VI and NOx Technical Code (MEPC.177(58))
- Germanischer Lloyd (GL) certificate no. 59 488 - 08 HH
- DET NORSKE VERITAS (DNV) certicate no. A-11316
- Russian Maritime Register of Shipping (RS) Certificate no. 10.01.101.250





°C, %RH

Thermal imagers

testo 875, 876, 881, 882, 885, 890

- Excellent image quality with optional SuperResolution technology (up to 1280 x 960 pixels)
- Exchangeable lens for more flexibility
- SiteRecognition for regular inspection tours
- High temperature measurement up to 1,200 °C
- Professional analysis software for high-quality thermography reports
- Fully radiometric video measurement for thermal processes

Manometers for gas and water fitters

testo 312-3

- Load and gas-tightness test on gas pipes
- Pressure test on water pipes
- Fast measurement of gas leak quantity
- Switchable measuring range, optimum resolution
- Compensation of measurement fluctuations caused by temperature
- Alarm display when user-defined limit values are exceeded
- Clear display with time



hPa

Fib. test

Fibrescope

testo 319

- Optics: 6,000 pixels with a field of view of 50°
- Low bend radius (50 mm), small diameter (6 mm)
- Inherent stability thanks to Decabon sleeve

Secure measurement values in industry.

Measurement tasks in industry place differing demands on the technology used. It is crucial for all measurement tasks that the measurement technology is reliable. Testo offers portable measuring instruments and systems for the parameters temperature, humidity, pressure, rpm, flow and current-voltage, which are adapted to the following applications:

- · Qualification and verification of plants
- · Administration, maintenance and calibration of measurement equipment
- · Check measurements on products or in processes
- · Maintenance and service in production plants
- · Monitoring of the storage, transport and production climate

Preventive maintenance using industrial thermography

Thermography has proven itself as a tool in preventive maintenance for monitoring mechanical as well as electrical systems or production processes.

Testo thermal imagers discover abnormalities and weak points quickly and efficiently, for example, during production monitoring. Materials and components undergo completely non-destructive testing even during operation. In this way, problems are discovered even before a breakdown occurs or fire risk develops.

Unrivalled products and professional services

Our products and services in the areas of software, calibration, validation in accordance with the FDA's 21 CFR Part 11 and qualification demand a high level of metrological knowledge and experience which you can count on. Particularly for these difficult tasks, it is good to have a competent partner in industry.





Exactly the right measuring instrument for every application

Thermal imagers

testo 875, 876, 881, 882, 885, 890

- Excellent image quality with optional SuperResolution technology (up to 1280 x 960 pixels)
- Exchangeable lens for more flexibility
- · SiteRecognition for regular inspection tours
- High temperature measurement up to 1,200 °C
- Professional analysis software for high-quality thermography reports
- Fully radiometric video measurement for thermal processes



°C. %RH

567 634

4 x external °C, °F

Long-term data logger

testo 176 T4

- Simultaneous temperature measurement at up to 4 different locations
- Memory up to 2 million measurement values
- Various thermocouple probes connectable (Type J, Type K, Type T)

Alarm and memory thermometer

testo 735-2

- Connection of 3 plug-in probes and 3 wireless probes
- System accuracy up to 0.05 °C
- Instrument memory up to 10,000 readings
- PC software for archiving and documenting measurement data
- Storage of single measurements and measurement series by location



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Differential thermometer

esto 922

- Two-channel measuring instrument with optional wireless probe
- Display of differential temperature
- · Continuous display of max./min. values
- Cyclic printing of readings, e.g. once per minute
- Robust, waterproof TopSafe protective case

Multi-function measuring instrument for ventilation and Indoor Air Quality

testo 435

- Instrument memory for up to 10,000 measurement values
- PC software for analyzing, archiving and documenting the measurement data
- IAQ probe, Lux probe and Comfort Probe
- Vane measurement and integrated differential pressure probe for Pitot tube measurement
- Wireless probes for temperature and humidity



°C, %RH, m/s, hPa, ppm CO₂, Lux



°C, °F, %rF, %RH, td, g/m³, WB

Long-term data loggers

testo 176 H1

- Long-term drift-free humidity sensor with fast reaction time
- Memory up to 2 million measurement values
- Parallel temperature and humidity measurement
- Various combined temperature/humidity probes connectable

Fibrescope

testo 319

- Optics: 6,000 pixels with a field of view of 50°
- Low bend radius (50 mm), small diameter (6 mm)
- Inherent stability thanks to Decabon sleeve



°C, %RH

Infrared temperature measuring instrument

testo 845

- Non-contact measurement of surface temperature with reference accuracy ±0.75 °C and fast measurement technology (Scanning 100 ms)
- Switchable optics for measurements in the far field (75:1) and in close focus (1 mm, distance 70 mm)
- Instrument memory for 90 measurement reports
- Probe input for TC probe for the determination of emissivity



The Testo humidity sensor.

The Testo humidity sensor has been in use for over 15 years, and has been continually improved - from the very beginning, the focus was on the two accuracy parameters measurement uncertainty and long-term stability. Owing to the design of the humidity sensor and the high degree of stability in Testo production and calibration, it is possible to guarantee a measurement uncertainty of 2 %RH, optionally also 1 %RH. In addition to this, the humidity sensor also has a high level of long-term stability. This has been proven in an inter-laboratory test, in which several Testo humidity sensors were passed through a number of international calibration laboratories (PTB, NIST etc.), and did not exceed the limit of 1 %RH.

Precision saves costs

The more accurate the humidity measurement, the lower the operating costs of the air conditioning system. Air conditioning systems are required by international norms (ASHRAE Fundamentals, DIN 1946 etc.) to deliver air humidities of between 30 and 65 %RH. In order to fall within the target range, higher humidities must be dehumidified and lower humidities humidified. If a measurement transmitter with a total measurement error of 2 %RH (uncertainty including long-term drift) is used for the humiditiy measurement, noticeably lower operating costs are incurred than if a typical measurement transmitter with a total measurement error of 6 %RH (uncertainty including long-term drift) is used. In the course of the year, operating costs are thus incurred which are 20 to 40 % higher than operating costs based on the precision humidity measurement transmitter (Testo hygrotest). This comparison is even more extreme in favour of the high quality measurement transmitter, if the target %RH-range to be achieved is more narrowly defined, e.g. for cleanrooms.





Exactly the right measurement solution for every requirement

Climate humidity measurement transmitter

testo 6621

- Application: VAC in rooms or in ducts
- Accuracy ±2.0 %RH (0 to 90 %RH)
- Simple adjustment concept for adjustments on site
- Connection to P2A software for parameterization, analysis and adjustment



-%RH, °C, °F

10.5° 51.0° 2000

%RH, °C/°F, °C td/°F td, g/kg, g/m³, °C/°F wet

High performance humidity measurement transmitter

testo 6651/6681

- Application: Drying processes, cleanrooms, critical air conditioning applications
- Accuracy up to ±1 %RH
- Highest system availability due to selfmonitoring and digital probes
- Special solutions for high humidity and trace humidity applications
- P2A software for parameterization, adjustment and analysis

Monitoring trace humidity

testo 6781

- Application: Adsorption dryers, granulate dryers, medical compressed air
- \bullet Measures dewpoints in measurement range -90 to -20 $^{\circ}\text{C}_{\text{td}},$ primary use below -40 $^{\circ}\text{C}_{\text{td}}$
- New, highly condensation-resistant sensor system
- Auto self-adjustment
- Optional display with operation menu
- Self-monitoring transmitter
- P2A software for parameterisation, adjustment and analysis



 $\label{eq:continuous_continuous$



 Δ P, °C, %rF, %RH, m/s, m³/h

Differential pressure transmitters

testo 6381/6383, testo 6321/6351

- Application: Cleanrooms, paint finishing systems, filling processes
- testo 6383 panel version for flush wall mounting in cleanrooms
- Automatic zero point adjustment
- Integration of transmitter in customer's Ethernet network
- P2A software for parameterization, adjustment and analysis

Compressed air counter

testo 644X

- Application: Saving operating costs
- Leakage detection or cost allocation by consumer
- Convenient operating menu for all parameterization
- All required signals integrated from the analog output to the totaliser
- Available for different diameters



Nm³/h, Nl/min, Nm³, °C



m/s, °C, Nm³/h, Nm³/min, Nm³

Compressed air counter

testo 6448

- Installation under pressure possible
- Recoil protection and ball valve ensure safe and fast installation and deinstallation of the compressed air probe on site.
- Mobility: several measurement sites can be sequentially covered using one shaft probe

Dewpoint transmitter

testo 6740

- \bullet Measurement of dewpoints in the measuring range from -45 $^{\circ}\mathrm{C_{td}}$ to +30 $^{\circ}\mathrm{C_{td}}$
- Testo polymer humidity sensor with high accuracy and long-term stability
- Convenient operation via display menu



%RH, °C, °C_{td}, °F_{td}, °CtA, °FtA, ppmv, mg/m³, °F



°C, °F, %rF, %RH, td, g/m³

Temperature and humidity data logger (2-channel)

testo 175 H1

- Professional long-term monitoring of temperature and humidity in work and storage rooms
- Fast reaction time thanks to external humidity probe

www.testo.com

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