



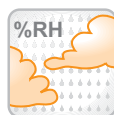
Portable Instruments

The portable and stationary range of **testo** instrumentation is one of the biggest and most innovative ranges on the market.

Ranging from an entry level food thermometer to a complex portable flue gas analyzer, **testo**'s instruments are a product of high quality and robustness.

Through years of practice and commitment to the customers needs, **testo** has extended the instrument range as well as raised the user friendliness and accuracy of each instrument.

testo offers perfected measuring instrument variants and services for a broad range of applications. With 1200 employees and 25 subsidiaries, **testo** is represented on all continents around the world and in South Africa by **unitemp**.



Food:

The measurement technology for the food sector is ideal to control freshness and an uninterrupted cold chain and includes parameters like temperature, humidity, pH level, and total polar material (TPM) for frying oil quality.

HVAC:

For the high technical demands of the ventilation and air conditioning sector, **testo** offers instrumentation for the parameters like: flow, velocity, humidity, temperature, LUX, sound, CO₂, volts and milliamperes.

Refrigeration:

Refrigeration is another strong industry where **testo** offers a measuring equipment range nowhere else seen. With the refrigeration analyzer being on top of the range and measuring parameters like pressure, temperature, vacuum, differential temperature and condensation temperature, the **testo** range completes the measuring tasks of every technician or engineer.

Heating and installation:

The measuring technology for the heating and installation market is designed to fulfill the measuring needs of the boiler and heating market, where combustion efficiency, temperatures and the detection of any gas leakages play an important role.

Flue Gas:

The industrial sector of this market, where measurement

solutions for emission, service and thermal processes are of great importance, has great demands on robustness, precise values and long-term stability of the used measuring equipment. Again, **testo** has an outstanding range of portable flue gas analyzers to offer.

Industrial:

Also, **testo** offers portable measurement solutions for industrial applications and caters for parameters like temperature, humidity, pressure, rpm, flow and current-voltage, which are adapted in applications like 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.

Stationary:

Further more, **testo** has reacted to the increasing demand for stationary measurement solutions for air-conditioning and processes. The stationary transmitters include temperature and humidity transmitters, pressure dew point transmitters, differential pressure transmitters and a compressed air counter for mass flow and total volume flow in compressed air systems.

Unitemp offers competent and fair consultations in all questions to do with measurement technology. After sale, we guarantee the user fast help, service, support, availability – we commit ourselves before sale, after sale and in all phases of application.

Portable instruments for the Food Industry

Waterproof Mini Thermometer

testo minithermometer: °C

- Measuring range -40°C...+230°C
- Stainless Steel
- Min / Max Values
- Waterproof



Compact Food Thermometer

testo 106: °C

- Measuring range -50 to +275°C
- Thin, robust measuring tip
- Audible and optical alarm (LED lights up)
- TopSafe, water resistant protective case (IP 67)
- Fast measurement
- Auto-Hold



Robust Food Thermometer

testo 105: °C

- Measuring range -50 to +275°C
- 3 different measuring tips for various applications
- Suitable for frozen foods
- Acoustic and optical alarm
- Watertight (IP 65) and very robust



Temperature Logger

testo 175-T2: °C

- Measuring range
internal: -35 to +70°C
external: -40 to +120°C
- Memory 16000
- IP68 protection class



Professional Infrared Thermometer

testo 831: °C

- Measurement range -30 to +210°C
- Optics Meas. distance/meas. Point 30:1
- 2 laser pointers for exact measurement.
- Very accurate!



Cooking Oil Tester

testo 265: %TPM, °C

- Measuring range 0.5 to 40 % TPM, +40 to +210°C
- Innovative measuring instrument for cooking oil quality
- % Total Polar Material and °C
- Optical Alarm in green/yellow/red



Robust pH Meter

testo 205: pH

- Measuring range 0 to 14 pH, 0 to 80°C
- Automatic temperature compensation
- Probe for semi solid materials (meat)
- Optional buffer solutions for calibration
- Non spilling storage gel



Compact pH Meter

testo 206: pH1 / pH2

- Measuring range 0 to 14 pH, 0 to 80°C
- Automatic temperature compensation
- Probe for liquids (pH1)
- Probe for semi solid materials (pH2)
- Optional buffer solutions for calibration
- Non spilling storage gel



For more infrared measuring devices please go to p.130

Air Conditioning, Ventilation and Refrigeration

Refrigerant Leak Detector

testo 316-4: set 1 for refrigerants
testo 316-4: set 2 for amonia

- Measures all relevant refrigerants
- Optical and audible alarm
- Permanent sensor check
- Two sensor settings



Refrigeration Analyser

testo 560: hPa, mbar, Pa, micron, bar, psi,
°C/°F, t_{cur} , t_{oh}

- 60 000 readings memory
- Ideal for commisioning and fault finding reports
- Calculation of overheating, subcooling, ΔT
- Highly accurate vacum sensor
- 4-valve block for evaluation, filling and changing the flow directions of a system



Thermohygrometer

testo 625: %RH, °C, °C td

- Max./min. values
- Hold button to freeze the reading
- Auto-off function
- Patented humidity sensor
- Guaranteed drift-free for 2 years
- TopSafe, protects the instrument from dirt and impact



Differential Thermometer

testo 922: °C

- Measuring range: -50 to +1000°C
- Two-channel measuring instrument with optional wireless probe
- Display of differential temperature
- Continuous display of max./min. values
- Cyclic printing of measurement values
- TopSafe, instrument protection



Large Area Vane Anemometer

testo 417: °C, m/s, m3/h

- Measuring range: 0 to +50 °C, 0 to 20m/s, 0 to +99999m³/s
- 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



Long-term Humidity/Temperature Data Logger

testo 177-H1: %RH, °C, °C td + extern °C

- Long-term drift-free humidity sensor with fast reaction time
- Memory up to 48,000 measurement values
- Control and calibration with calibration set
- Protective cap for contaminated air or aggressive gases
- Ambient humidity and temperature probe
- External temperature probe socket for different temperature sensors



Multi Function Instrument

testo 435: m3/h, m/s, CO₂, %RH, °C, ΔP , Lux

- Memory for up to 10,000 measurement values
- PC software for analyzing, archiving and documenting
- IAQ probe, lux probe and comfort Probe
- Vane measurement and integrated differential pressure probe for pitot tube
- Wireless probes for temperature and humidity



Air Flow Velocity, Temperature And Humidity

testo 410-2: °C, %RH, m/s, °Cfd

- Ideal for the VAC service technician
- Windchill calculation
- 40mm vane probe
- Hold function max/min



For more infrared measuring devices please go to p.130

Emission, Service and Thermoprocesses

Basic Combustion Gas Analyzer

testo 327-1 / 326-72: O₂, CO, CO₂, CO, °C, hPA

- Ideal for gas and oil burners applications
- Instrument protection with removable condensate trap
- Measurement value printout on site incl. date and time
- Longlife cells available
- Data transfer to PC, printer or pocket-PC possible



Portable Exhaust Gas Measurement System

testo 350 S/XL: CO₂, CO, CO_{low}, NO, NO_{low}, NO₂, SO₂, H₂S, HC, CO₂ (NDIR)

- Max. 6 measurement cells
- Fast and easy measurement cell changing with precalibrated cells
- Measuring range extension for CO with selectable dilution factors
- Integrated Peltier gas preparation with a hose pump for condensate disposal



Compact Gas Analyzer for Efficiency

testo 335: O₂, CO, CO_{low}, NO, NO_{low}, NO₂, SO₂

- Max. 3 measurement cells
- Two toxic measurement cells, freely selectable
- High-performance automatically controlled membrane pump
- Logger function
- Parallel ΔP and m/s for flue gas measurement
- 2 measurement range extensions (standard: single dilution with factor 5, option: dilution for all sensors with factor 2)



Infrared Thermometer

testo 845: °C, %RH

- Measuring range -35 to +950°C
- Switchable optics for far-field measurements (75:1) and close focus (1mm, 70mm distance)
- Backlit display (3-line), shows °C, min./max. values, alarm limit and emissivity



Carbon Monoxide Monitor (CO)

testo 317-3

- Warns of dangerous gas concentrations
- No zero phase, instrument is ready for use immediately
- Settable alarm threshold
- CO-zeroing at the measurement location
- Optical and audible alarm



Gas Leak Detector

testo gas detector for CH₄, C₃H₈ and H₂

- Audible signals when approaching the lower explosion limit
- Continuous sound and display when the explosion limit is reached
- Measures methane, propane and hydrogen
- testo 0632 0323 in ppm
- testo 317-2 bar graph only



Flue Gas Spillage Detector

testo 317-1, Spillage detector with flexible probe

- Reliable detection of leaking flue gases
- Bendable measurement probe for inaccessible points
- Audible and visual alarm



Probes For Emission Monitoring

probes for all applications

- Pitot tubes
- Fluegas probes standard
- Fluegas probes industrial



For more infrared measuring devices please go to p.130

Portable instruments for maintenance purposes

Thermal Imaging Camera

testo 880: mA, °C, °Ctd

- Switchable lenses
- Measuring range -10°C to 350°C
- Surface moisture measurement
- Report function
- Highly accurate $\leq 0.1^\circ\text{C}$ thermal resolution
- Motorized focus function
- 1GB of memory



Infrared Measurement For Temperature And Humidity

testo 845: °C, %RH, °td

- Measuring range -35 to +950°C
- Switchable optics for far-field measurements (75:1) and close focus (1mm, 70mm distance)
- Including humidity module: measurement of dew point temperature in combination with product temperature - ideal for determining dryness of product.



Hand-held Stroboscope

testo 476: rpm

- High setting accuracy and stability thanks to dynamic setting dial
- Automatic trigger to synchronise flash sequence
- Powerful rechargeable battery pack for min. 1 hour operation



Flexible Fiberscope

testo 319

- Inspection tool for industrial applications
- Optics: 6,000 pixels with a field of view of 50°
- Low bending radius (50mm), small diameter (6mm)
- Stability thanks to Decarbon pipe
- Gooseneck casing for better stability
- 3-arm gripper: grips small objects



Indoor Air Quality Monitor

testo 535: ppm CO₂

- CO₂ measurement for indoor air quality
- Repeated calibration is unnecessary
- Long-term monitoring



Differential Thermometer

testo 922: °C

- Measuring range: -50 to +1000°C
- Temperature measuring instrument with optional wireless probe
- Continuous display of max./min. values
- Cyclic printing of measurement values
- TopSafe, instrument protection
- Backlit display



Sound Level Measuring Instrument

testo 815/816: dB

- Class 2
- Easy to adjust
- Frequency evaluation according to characteristic curve A and C
- Max./min. memory
- BarGraph display
- AC/DC output



Light Intensity Measurement

testo 540: LUX

- Sensors adapted to spectral sensitivity of the eye
- Hold functions and max/min values
- Backlit display
- Sensor protection cap and carry pouch
- 0 to 99 999 Lux



For more infrared measuring devices please go to p.130

Portable Infrared Pyrometers

Thermal Imaging Camera

testo 880: mA, °C, °Ctd

- Switchable lenses
- Measuring range -10°C to 350°C
- Surface moisture measurement
- Report function
- Highly accurate $\leq 0.1^\circ\text{C}$ thermal resolution
- Motorized focus function
- 1GB of memory



Infrared Measurement for Temperature and Humidity

testo 845: °C, %RH, °td

- Measuring range -35 to +950°C
- Switchable optics for far-field measurements (75:1) and close focus (1 mm, 70 mm distance)
- Including humidity module: measurement of dew point temperature in combination with product temperature - ideal for determining dryness of product.



Handy Infrared Thermometer

testo 830-T4: °C

- Optics 30:1
- 2 point laser
- Thermocouple type K-plug
- -30°C to +400°C



Close Focus Infrared Thermometer

testo 830-T3: °C

- Optics 2,5:1
- 2 point laser
- Thermocouple type K-plug
- Spot size 2mm
- +25°C to +400°C



Versatile Infrared with Laser Sighting

testo 830-T1/ 830-T2: %TPM, °C

- Optics 10:1 (T1) and 12:1 (T2)
- -30°C to +400°C
- Laser sighting (1 and 2 point laser)



Professional Infrared Thermometer for the Food Industry

testo 831: °C

- Measurement range -30 to +210°C
- Optics Meas. distance/meas. Point 30:1
- 2 laser pointers for exact measurement.
- Very accurate!



Infrared and Air Temperature in one Instrument

testo 810: °C

- Optics 6:1
- Accurate
- -30°C to +300°C infrared temperature
- -10°C to +50°C air temperature



Non Contact Infrared Thermometer for the Food Industry

testo 805: °C

- Measuring range -25 to +250°C
- Reaction time < 1.0 second
- Small and handy, fits into any pocket!
- Watertight and robust thanks to the TopSafe (IP65) protection case



Instruments to monitor compressed air

Compressed Air Analysis

DS300

- m³/h, °Ctd, bar, A
- RS 485
- Alarm relay
- 4 probe input
- Memory 500 000 readings



Consumption Sensor for Compressed Air

VA 400

- Integrated display
- 4... 20mA output
- Consumption counter
- Usable from 1/2" to 12"



Dewpoint Sensor for Compressed Air

FA 400

- -80°C to +20°C
- integrated display
- 4... 20mA output
- Alarm relay



Ex Probe Dew Point Sensor for Compressed Air

FA300-EX

- Pressure tight up to 300bar
- -80°C to +20°Ctd
- 4... 20mA output
- PC software for data storage and calibration
- Software



Compact Consumption Sensor for Compressed Air

VA 410

- Optimum accuracy due to intergrated pipe section
- Integrated display
- Consumption counter
- 4... 20mA output



Mobile Compressed Air Analysis

DS 300 mobile

- Data logger with 500 000 readings
- All relevant parameters at a glance
- 4 probe connection
- USB interface
- Software



Portable Instrument for Pressure Dew point

DP 300

- -80°Ctd to +80°Ctd
- Automatic temperature compensation
- Runs independent up to 15 hours
- Quick coupling connection for ease of use



Ultrasonic Leak Detector

LD 300

- Leak detection in compressed air lines, gas, vapour and vacuum plants.
- Laser sight
- Noise isolated headset



For more infrared measuring devices please go to p.130

Portable data loggers

One channel temperature logger with internal sensor

testo 175-T1

- Measuring range of -35°C to +70°C
- Memory for 7 800 readings



Three channel temperature logger with event logging

testo 177-T3

- Internal measuring range of -40°C to +70°C
- External measuring range of -40°C to +120°C
- Memory for 48 000 readings



One channel current/voltage logger

testo 175-S1 (without display) and testo 175-S2

- Measuring range of 0 to 1V / 0 to 10V
0 to 20mA / 4 to 20mA
- Memory for 16 000 readings
- Measurement rate of 1s to 24h



Four channel temperature logger for external thermocouples

testo 177-T4

- Type K measuring range of -195°C to +1000°C
- Type T measuring range of -200°C to +400°C
- Memory for 48 000 readings



Four channel humidity and temperature logger with int. sensors and additional ext. probe socket

testo 177-H1

- Internal measuring range of 0 to 100%RH
-20°C to +70°C
-40°C to +70°C td
- External measuring range of -40°C to +120°C
- Memory for 48 000 readings



Compact data collector

testo 580

- Memory capacity of 1MB (approx. 500 000 values)
- Read out time in logger of approx. 400 reading/s
- Read out time in PC of approx. 1 500 reading/s
- Bidirectional, IR transfer, logger interface
- RS 232 (Sub_D socket) PC interface



Fast printer and logger control in one

testo 575



fast transfer and easy analysis

testo ComSoft software and interface

- Convenient, Basic software for Windows 95, 98, NT, ME, XP
- ComSoft 3 - Basic: Reads out, displays, prints and programs all testo 175 and 177 loggers; includes e-mail function



For testo wireless loggers please contact us