High-tech from the Black Forest.
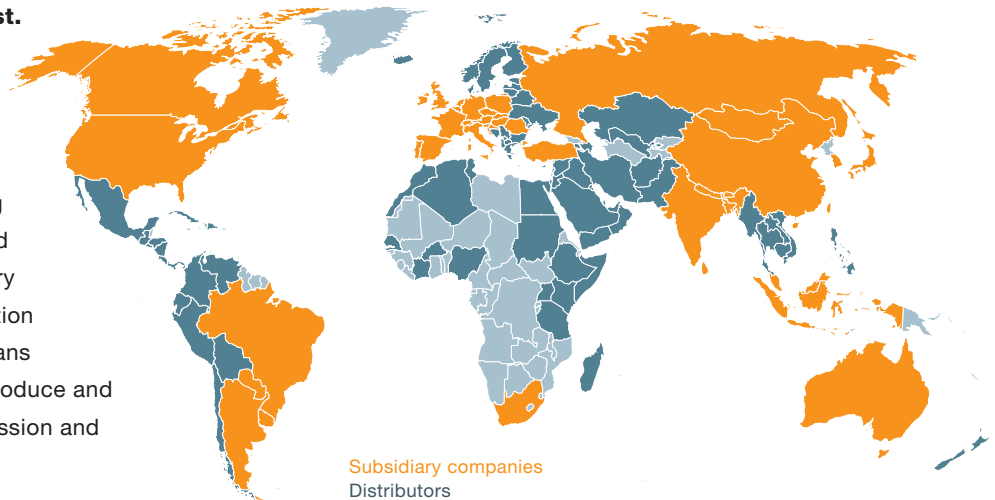
© Sacker Architekten, Miguel Babo

For more than 60 years, Testo has stood for innovative measuring solutions made in Germany. As an expert in measurement technology and world market leader in portable measurement technology, we convince over 650,000 customers worldwide with highly precise measuring instruments for many different sectors. Whether in refrigeration, air conditioning and environmental technology, industrial applications, for exhaust and flue gas analysis, in the pharmaceutical and health sectors, for the monitoring of indoor air and food quality, or in the electrical field – we measure it. Our products help to save time and resources, to protect the environment and the health of humans, and to increase the value of goods and services.

With roots in the Black Forest. At home all over the world.
Our headquarters are in Lenzkirch in the Black Forest. However, Testo has for many years been a constantly growing global concern, now represented on all continents by 33 subsidiary companies and over 80 distribution partners. Roughly 3,000 Testorians worldwide research, develop, produce and market for the company with passion and expertise.

Subsidiary companies
Distributors

Our innovations are the engine which drives you forward.
The requirements for practical measurement solutions are becoming increasingly more complex and specific. That is why we have set ourselves the key task of identifying these customer requirements in industry and trade and translating them permanently into new technology. We carry out our own intensive research, which has given us a leading role in the market for decades.

On the following pages, we will present the intelligent little helpers which make you ready to measure at any time.

Smart Probes:
small, professional measuring instruments – optimized for your smartphone.

For VAC, refrigeration and heating contractors, measurement is more mobile than ever before, with the new Testo Smart Probes. Because the compact measuring instruments can be operated wirelessly with your own smartphone or tablet, and conveniently transported in the handy testo Smart Case. That way, you always have all your measurement technology with you and immediately ready to hand. All measurement data are transmitted directly to the free testo Smart Probes App, and with a mobile end device, can be read out, turned into a report, and finally sent directly by e-mail. And the App can do much more: with practical measurement menus and special functions, it turns your smartphone into a measurement data centre – and makes your work more efficient. Welcome to the world of digital measurement technology.

Volume Flow (Outlet)

1.685 m³/h

23,7 °C

3,9 m/s

Smart in use:
Application examples.

Tightness test on air conditioning systems

Superheating and subcooling on air conditioning systems

Target superheating in air conditioning systems

Cooling and heating performance of air conditioning systems

- Long-term measurement of the system pressure with the high pressure measuring instruments **testo 549i**
- Compressor tightness check with the high pressure measuring instrument **testo 549i**

How the testo Smart Probes App supports you in this application:
- Recording and anaylsis of the pressure curve

- Simultaneous measurement of temperature and pressure on the high and low pressure sides of the system with two clamp thermometers **testo 115i** and two high pressure measuring instruments **testo 549i**
- Problem-free measurement even at measurement locations which are far apart (indoor and outdoor areas) thanks to long range of up to 350ft.

How the testo Smart Probes App supports you in this application:
- 90 refrigerants stored
- Automatic updates of new refrigerants
- Automatic determination of condensation and evaporation temperature, and calculation of superheating and subcooling

- Measurement of wet bulb temperature with the thermohygrometer **testo 605i**
- Outside temperature measurement with the thermohygrometer **testo 605i**
- Simultaneous measurement of temperature and pressure on the high and low pressure sides of the system with two clamp thermometers **testo 115i** and two high pressure measuring instruments **testo 549i**

How the testo Smart Probes App supports you in this application:
- 90 refrigerants stored
- Automatic updates of new refrigerants
- Automatic calculation of the target superheating

- Volume flow measurement with the thermal anemometer **testo 405i**
- Simultaneous measurement of exhaust and air intake with two thermohygrometers**testo 605i**

How the testo Smart Probes App supports you in this application:
- Automatic calculation of cooling/heating performance

Our recommendation:

The testo Smart Probes AC & refrigeration test kit

Kit see page 10.

Our recommendation:

The testo Smart Probes AC & refrigeration test & load kit

Kit see page 10.

Functional testing of a heating system

- Non-contact temperature measurement with infrared thermometer **testo 805i**
- Measurement of flow and return temperature with clamp thermometer **testo 115i**
- Measurement of gas flow pressure incl. pressure drop test with differential pressure measuring instrument **testo 510i**
- High pressure measurement with **testo 549i**

How the testo Smart Probes App supports you in this application:
- Pressure drop test incl. alarm
- Fast image documentation with infrared temperature measurement values and measurement spot marking
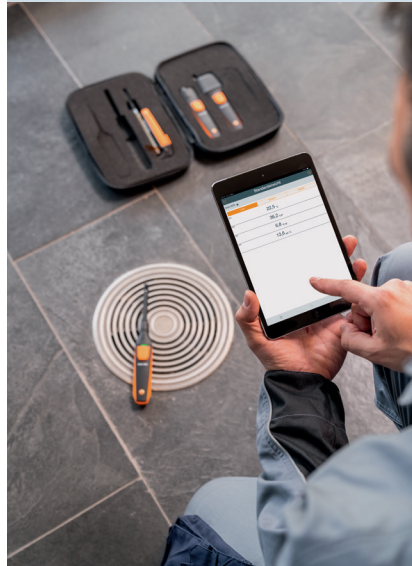
Functional testing of air conditioning systems

- Air humidity measurement with the thermohygrometer **testo 605i**
- Volume flow recording with the vane anemometer **testo 410i** and the thermal anemometer **testo 405i**
- Air temperature measurement with the thermohygrometer **testo 605i**

How the testo Smart Probes App supports you in this application:
- Easy parametrization of the outlet/duct cross-section for measuring the volume flow
- Listing of several volume flows and calculation of the total volume flow
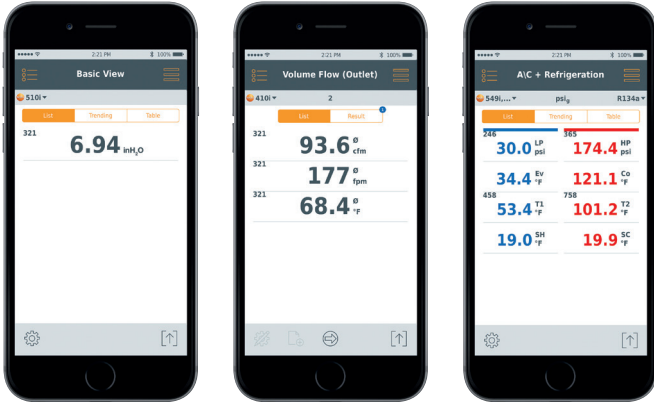- Calculation of dewpoint and wet bulb temperature

Our recommendation:

The testo Smart Probes heating kit

Kit see page 11.

Our recommendation:

The testo Smart Probes VAC kit

Kit see page 10.

The testo Smart Probes App:
One App. Eight measuring instruments.
Many advantages.

- Wireless readout of the measurement values on your smartphone/tablet – even at some distance from the measuring instrument.
- Display of up to six Smart Probes at the same time.
- The App quickly visualizes measurement value changes – as a graph or a table.
- Pre-stored menus for specific applications, incl.: automatic calculation of evaporation and condensation temperatures, as well as superheating and sub-cooling; volume flow measurement in ducts/at outlets; non-contact temperature measurement by infrared with fast image documentation incl. measurement values and measurement spot marking.
- Measurement data reports can be supported by images created with the App, and immediately sent as PDF or Excel files.

testo Smart Probes App

for free download

ANDROID APP ON
Google play

Available on the
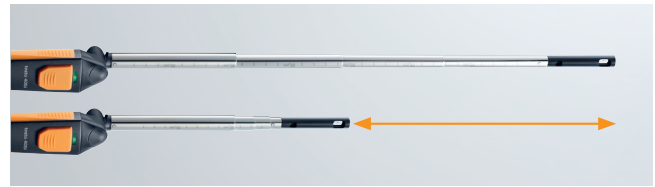**App Store**

New:
Improved operation.

The Testo Smart Probes combine professional measurement technology with convenient operation. This begins with their size – each of the compact tools fits easily into your pants pocket, and it is no problem to have several Smart Probes accompany you everywhere in the Smart Case.

Using the App on your smartphone, operation and documentation are childsplay. As for all the other features which considerably increase your convenience in measurement, you can best discover them yourself.
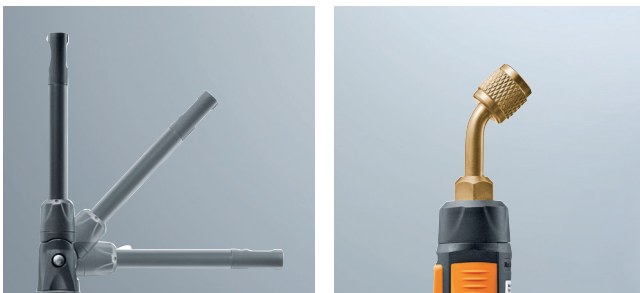
More flexibility.

Range up to 350 ft.

The new Smart Probes testo 115i, testo 605i and testo 549i have an extended Bluetooth range of up to 350 feet. With the telescope of the testo 405i, your reach is extended by 15.7 inches in ventilation duct measurements.
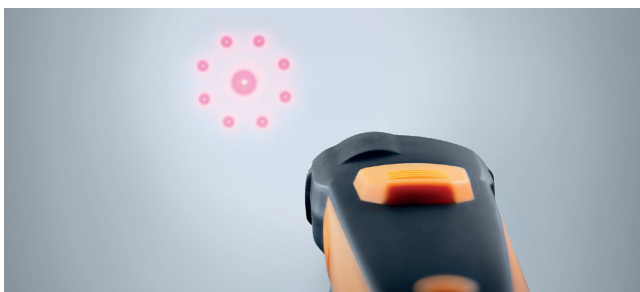

Better handling.

Measurement at a vent is comfortable with the bendable probe of the new testo 605i. Its thinner measurement tip is ideal for smaller measurement apertures, and the stable magnetic holder ensures even more secure attachment. The connection of the new testo 549i is angled by 45° for easier mounting.

Higher precision.

A red laser automatically marks the measurement spot of the infrared thermometer testo 805i. This lets you see exactly what you are measuring – and what not. By the way: you also see this mark in the report you create with the testo Smart Probes App.

For smart temperature measurement.

testo 115i: Clamp thermometer operated with smartphone

- Measurement of flow and return temperature in heating systems
- Temperature measurement on refrigeration systems for automatic calculation of superheating and subcooling
- Problem-free use at measuring points that are a long distance apart – Bluetooth® range up to 350 ft.
- Measuring range -40 to 302 °F

Order no. 0560 2115 03

testo 905i: Thermometer operated with your smartphone

- Measurement of temperatures in rooms, ducts and at air outlets
- Fast identification of temperature change by graph curve display
- Measuring range -58 to 302 °F

Order no. 0560 1905

testo 805i: Infrared thermometer operated with your smartphone

- Non-contact infrared measurement of surface temperature
- Measuring spot marking via highly visible 8-point laser circle
- Easy selection of emission level via stored materials list
- Image documentation with readings and measuring spot marking
- Optics 10:1, measuring range -22 to 482 °F

Order no. 0560 1805

For smart humidity measurement.

testo 605i: Thermohygrometer operated with your smartphone

- Measurement of air humidity and temperature in rooms and ducts
- Determination of cooling/heating performance with two testo 605i
- Automatic calculation of the dewpoint and wet bulb temperature
- Problem-free use at measuring points that are a long distance apart – Bluetooth® range up to 350 ft.
- Measuring range: 0 to 100 %RH; -4 to 140 °F

Order no. 0560 2605 03

For smart flow velocity measurement.

testo 405i: Thermal anemometer operated with your smartphone
- Measurement of air velocity, volume flow and temperature
- Easy configuration of the dimensions and geometry of the duct cross-section for determining volume flow
- Telescopic tube which can be extended to 15.7 in.
- Measuring range 0 to 5,900 fpm and -4 to 140 °F

Order no. 0560 1405

testo 410i: Vane anemometer operated with your smartphone
- Measurement of air velocity, volume flow and temperature
- Presentation of the volume flow of several outlets for the purposes of regulating systems
- Easy parametrization of the outlet (dimension and geometry)
- Measuring range 78 to 5,900 fpm and -4 to 140 °F

Order no. 0560 1410

For smart pressure measurement.

testo 510i: Differential pressure measuring instrument operated with your smartphone
- Measurement of gas flow and static pressure
- Measurement menu for pressure drop test including alerts
- Easy configuration and determination of the volume flow with Pitot tube
- Magnetic holder for easy attachment
- Measuring range -60 to 60 inH$_2$O

Order no. 0560 1510

testo 549i: High-pressure measuring instrument operated with smartphone
- Measurement of high and low pressure
- Quick and easy installation at the pressure connection
- Low refrigerant loss thanks to hoseless application
- Problem-free use at measuring points that are a long distance apart Bluetooth® range up to 350 ft.
- Measuring range -14 to 870 psi

Order no. 0560 2549 03

Smart sets for air conditioning, refrigeration and heating technicians.

The testo Smart Probes AC & refrigeration test kit:

2 x testo 549i and 2 x testo 115i in the testo Smart Case.

- Application-specific menus: Superheating/subcooling
- More than 90 common refrigerants stored in the testo Smart Probes App, plus refrigerant updates
- 350 ft Bluetooth®range for particularly flexible applications
- Measurement data analyzed and sent via testo Smart Probes App

Order no. 0563 0002 20

testo Smart Probes HVAC/R complete kit:

2 x testo 115i, 2 x testo 549i, 2 x testo 605i, testo 405i, testo 410i, testo 510i, testo 805i and testo 905i, in the testo HVAC softcase.

- Carry out all measurements in the areas of heating, air conditioning, refrigeration and ventilation with one kit
- All Smart Probes for temperature, pressure, humidity and flow velocity in one kit
- Display of measurement data progression as a graph or table
- Measurement data analyzed and sent via testo Smart Probes App

Order no. 0563 0007

The testo Smart Probes AC & refrigeration test & load kit:

2 x testo 549i, 2 x testo 115i, 2 x testo 605i in the testo HVAC softcase.

- Application-specific menus: superheating and subcooling, target superheating, heating/cooling output
- More than 90 common refrigerants stored in the testo Smart Probes App, plus refrigerant updates
- Measurement data analyzed and sent via testo Smart Probes App

Order no. 0563 0009

The testo Smart Probes VAC kit:

testo 405i, testo 410i, testo 605i and testo 805i in the testo Smart Case.

- For the measurement of air and surface temperature, humidity, air velocity and volume flow
- Application-specific menus: volume flow measurement in ducts and at outlets, identification of mould risk, easy image documentation including IR temperature measuring value and measurement spot marking
- Easy parameterization of the outlet/duct cross-section
- Calculation of total volume flow
- Measurement data analyzed and sent via testo Smart Probes App

Order no. 0563 0003

Be sure. testo

The testo Smart Probes heating kit:

testo 115i, testo 510i and testo 805i in the testo Smart Case.

- For all temperatures and pressures on heating systems
- Gas flow and static pressure as well as pressure drop test incl. alarm function
- Flow and return temperature, temperatures of underfloor heating and radiators
- Measurement data analyzed and sent via testo Smart Probes App

Order no. 0563 0004

Ordering information.

Smart Probes	Order no.	
testo 905i, thermometer operated with smartphone, including batteries and calibration protocol	0560 1905	
testo 115i, clamp thermometer operated with smartphone, for measurement on pipelines with diameters of 0.25 to max. 1.5 in, including batteries and calibration protocol	0560 2115 03	
testo 805i, infrared thermometer operated with smartphone, including batteries and calibration protocol	0560 1805	
testo 605i, thermohygrometer operated with smartphone, including batteries and calibration protocol	0560 2605 03	
testo 405i, thermal anemometer operated with smartphone, including batteries and calibration protocol	0560 1405	
testo 410i, vane anemometer operated with smartphone, including batteries and calibration protocol	0560 1410	
testo 510i, differential pressure measuring instrument operated with smartphone, including hose set (Ø 0.16 in and 0.2 in) with adapter, batteries and calibration protocol	0560 1510	
testo 549i, high-pressure measuring instrument operated with smartphone, including batteries and calibration protocol	0560 2549 03	
testo Smart Cases	**Order no.**	
testo Smart Case (VAC) for the storage and transport of testo 405i, testo 410i, testo 510i, testo 605i, testo 805i and testo 905i, dimensions 10.6 x 7.5 x 2.4 in.	0516 0260	
testo Smart Case (HVAC/R Complete) for the storage and transport of 2 x testo 115i, 2 x testo 549i, 2 x testo 605i, 1 x testo 405i, 1 x testo 410i, 1 x testo 510i, 1 x testo 805i, 1 x testo 905i, dimensions 15.7 x 11.4 x 3.1 in.	0516 0283	
testo Smart Case (Heating) for the storage and transport of testo 115i, testo 410i, testo 510i, testo 549i and testo 805i, dimensions 9.8 x 7.1 x 2.8 in.	0516 0270	
Testo Smart Probes sets	**Order no.**	
testo Smart Probes AC & refrigeration test kit for testing and troubleshooting on air conditioning and refrigeration systems as well as on heat pumps. Consists of: 2 x testo 115i, 2 x testo 549i, testo HVAC softcase, batteries, calibration protocol	0563 0002 20	
testo Smart Probes HVAC/R complete kit consists of: 2 x testo 115i, 2 x testo 549i, 2 x testo 605i, testo 405i, testo 410i, testo 510i, testo 805i, testo 905i, testo HVAC softcase, batteries, calibration protocol	0563 0007	
testo Smart Probes AC & refrigeration test & load kit for testing and troubleshooting on air conditioning and refrigeration systems as well as on heat pumps. Consists of: 2 x testo 115i, 2 x testo 549i, 2 x testo 605i, testo HVAC softcase, batteries, calibration protocol	0563 0009	
testo Smart Probes VAC set for servicing ventilation and air conditioning systems. Consists of: testo 405i, testo 410i, testo 605i, testo 805i, testo Smart Case (VAC), batteries, calibration protocol	0563 0003	
testo Smart Probes heating set for pressure and temperature measurement on heating systems. Consists of: testo 115i, testo 510i including hose kit (Ø 0.16 in and 0.2 in) with adapter, testo 805i, testo Smart Case (heating), batteries, calibration protocol	0563 0004	
Calibration certificates	**Order no.**	
ISO temperature calibration certificate, for air/immersion probe, calibration points -0.4 °F; 32 °F; 140 °F	0520 0001	
ISO humidity calibration certificate, calibration points 11.3% RH and 75.3% RH at 77 °F	0520 0006	
ISO calibration certificate flow velocity, two-point calibration, calibration points 5; 10 m/s	0520 0094	
ISO pressure calibration certificate, accuracy > 0.6% of full scale value	0520 0005	