

We measure it.



# Measurement data monitoring system **testo Saveris.**

Automated and uninterrupted measurement data recording with comprehensive alarm management.

# testo Saveris: Easy, secure and efficient measurement data monitoring

The data monitoring system testo Saveris measures temperature and humidity values in sensitive goods and products, in the surroundings, in processes and during transport. The easily operated measurement system provides security as well as savings of time and costs thanks to automated measurement data recording. In stationary operation, measurement data transfer takes place by wireless and/or Ethernet connection to a base station. This documents and monitors all measurement data. If limit values are exceeded, a number of alarm options such as SMS/e-mail alarm or alarm relay are available. Remote alarms can also be triggered even when the system is not connected to a running PC.

If measurement parameters are documented during transport, the driver receives all necessary information and alarms via a cockpit unit in the driver's cabin. The documentation and monitoring takes place via wireless probes, and a complicated installation of wired sensors in the truck is unnecessary. At the same time, there is the possibility of printing out the measurement data using an infrared printer on site during the handover of goods. All recorded data, whether they are recorded stationary or in transport, are centrally stored in a software. The testo Saveris-Software also allows a comprehensive analysis and evaluation of all recorded measurement data. With testo Saveris, all measurement data are under control – stationary and in transport.





# testo Saveris system overview

## Data monitoring for uninterrupted control

### testo Saveris wireless probes

Probe versions with internal as well as external temperature and humidity sensors allow the adaptation to any application. The wireless probes are available optionally with or without display. The current measurement data, the battery status and the quality of the wireless connection are shown.



testo Saveris wireless probes

### testo Saveris-Router

The use of a router can improve or extend the wireless connection in difficult constructional circumstances. Several routers in the testo Saveris system are of course possible. At the same time, the serial switching of up to 3 routers V 2.0 provides the highest level of flexibility regarding wireless range.



testo Saveris Router

### testo Saveris-Converter/Extender

By connecting a testo Saveris-Converter to an Ethernet socket, the signal from a wireless probe can be converted into an Ethernet signal. This combines the flexible installation of a wireless probe with the exploitation of the existing Ethernet even over long transmission distances.



testo Saveris Converter V 2.0  
testo Saveris Extender



testo Saveris Analog coupler (wireless)



testo Saveris Analog coupler (Ethernet)

Ethernet



Humidity transmitter

### testo Saveris analog coupler

The two versions of the analog coupler (wireless/Ethernet) allow the integration of further measurement parameters into the testo Saveris monitoring system, by including all transmitters with standardized current/voltage interfaces, e.g. 4 to 20 mA or 0 to 10 V.

### Humidity and differential pressure transmitters

#### testo 6651/6681/6351/6381/6383

By integrating the humidity and differential pressure transmitters, measurement data monitoring parallel to the control is possible. This offers the solution for highest accuracy as well as for special applications, (high humidity, trace humidity etc.) in compressed air, drying and air conditioning technology.

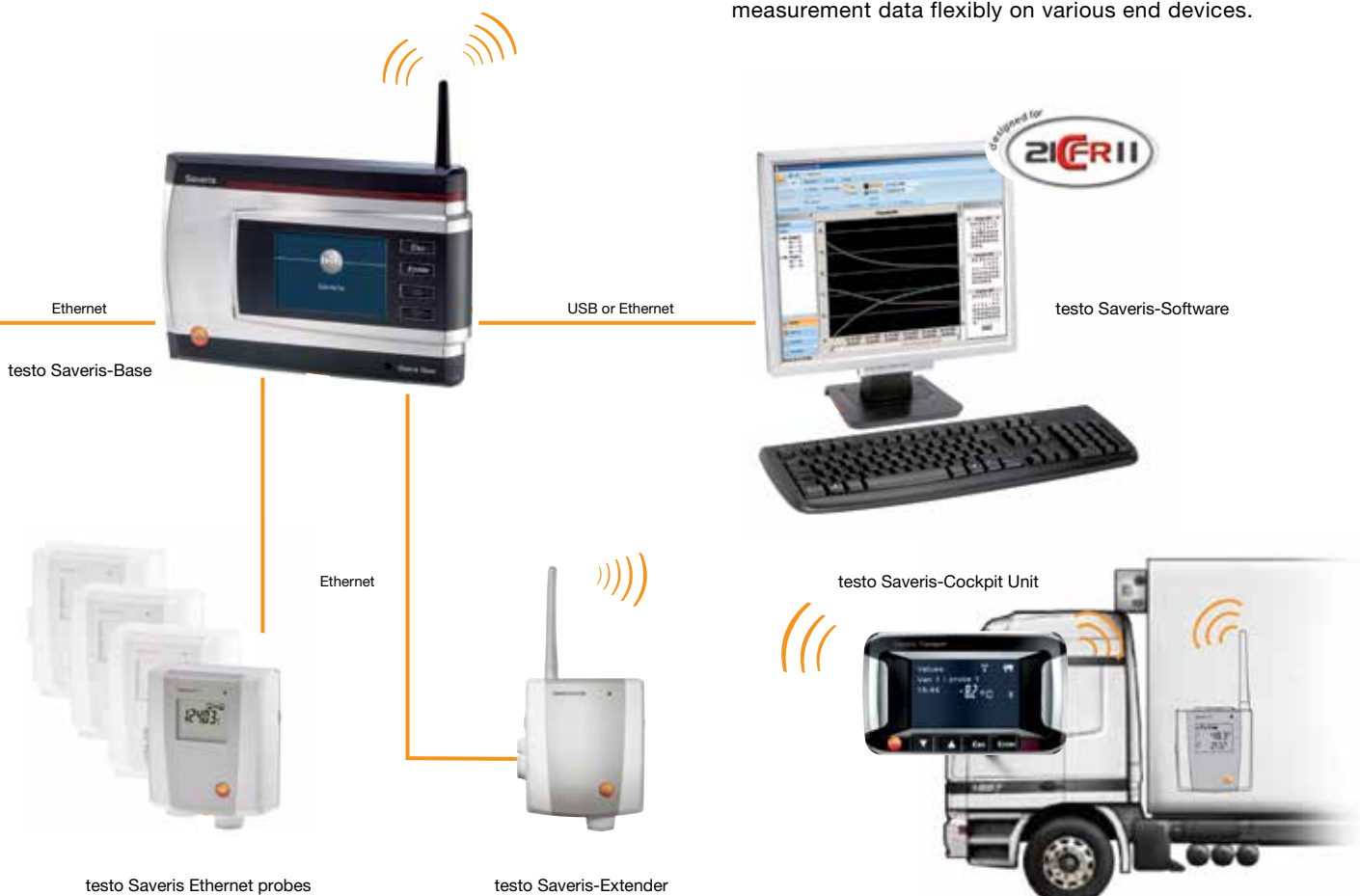
Find out more at [www.testo.com](http://www.testo.com)

**testo Saveris-Base**

The base is the heart of testo Saveris, and can store 40,000 measurement values per measurement channel independently of a PC. This corresponds to a storage capacity of approximately a year at a measurement rate of 15 minutes. System data and alarms are visible via the testo Saveris-Base display.

**testo Saveris-Software**

The testo Saveris software offers easy operation as well as an intuitive user interface. The testo Saveris software is available in three different versions: as a basic version SBE (Small Business Edition), as a PROF version (professional) with many additional options, or as a CFR version. The CFR software fulfils the 21 CFR Part 11 requirements of the FDA, and is thus validatable. Additionally, you can use testo Web Access to view the measurement data flexibly on various end devices.



**testo Saveris Ethernet probes**

In addition to the wireless probes, probes can be used which can be directly connected to the Ethernet. This means that an existing LAN structure to be used, allowing the data transfer from probe to base even over large distances.

**testo Saveris-Extender**

By connecting a testo Saveris-Extender, the wireless signal of a transport probe (mobile probe) is converted into an Ethernet signal. The data transfer from wireless probe to Extender takes place automatically when sufficient wireless connection is present.

**testo Saveris-Cockpit Unit**

The testo Saveris-Cockpit Unit displays all measurement values to the driver uninterruptedly during transport. If limit values are violated, the driver is immediately warned. Alternatively, the complete data recording can be printed out at the handover site of the goods using the Testo printer on the Cockpit Unit.

# Overview of application areas for testo Saveris

## Monitoring processes in the pharmaceutical industry

In the pharmaceutical industry, the recording and monitoring of quality parameters is subject to strict requirements. Constant documentation during the production, transport and storage of temperature-sensitive products such as medicines, blood products or cell cultures has long been considered a „must“.

testo Saveris automates central documentation as well as safe monitoring in refrigerated or deep-freeze rooms, incubators and climate cabinets. At the same time, the system allows uninterrupted measurement data recording during the transport of temperature- or humidity-critical products such as medicaments or vaccines. testo Saveris thus offers optimum control, from production and storage, via transport, to delivery.

The comprehensive alarm management allows fast alarms if limit values are exceeded. Thanks to the combination of wireless and/or Ethernet probes, the system concept is ideal for many different applications in the pharmaceutical industry. The data monitoring system testo Saveris of course complies with the requirements of 21 CFR Part 11.

## Monitoring building climate

Especially in museums and archives, stable ambient conditions are indispensable in the monitoring of building climate, in order to protect sensitive and valuable objects. And during transport too, precious goods must be constantly monitored. testo Saveris automates the central recording of all ambient data, not only stationary, but also during transport.

Thanks to the alarms when limit values are exceeded, testo Saveris protects valuable inventory at all times from undesired temperature or humidity influences. The wireless probes can be flexibly installed at the measurement sites without complicated wiring.





**Monitoring of processes in research and development, laboratories and hospitals**

Research and development areas as well as laboratories and hospitals are responsible for the recording of ambient and process data, in order to monitor sensitive products or machines. However, the monitoring of temperature- and humidity-critical goods during transport too, is indispensable for a high standard of quality. testo Saveris takes over the central documentation of the measurement series, not only for stationary, but also for transport applications.

testo Saveris thus guarantees the easy and safe monitoring of ambient and process data in climate cabinets, refrigerators, incubators, test benches or blood banks. If critical values are to be monitored during transport, testo Saveris offers the optimum solution.

# Overview of application areas for testo Saveris

## Monitoring the food cold chain

The maintenance of pre-defined temperature values is crucial for quality in food production, and important for the fulfilment of legal hygiene standards. The deciding factor is the uninterrupted maintenance of the cold chain during production, storage and above all transport. In the final analysis, only this uninterrupted monitoring guarantees an evaluation of the quality and freshness of the products. testo Saveris automates not only the monitoring of the ambient and product temperatures during production and storage, but also the maintenance of defined temperature limit values during transport. The installation of wireless probes in the truck makes the troublesome wiring of the driver's cabin unnecessary. Alarms are of course immediately triggered when limit values are exceeded.

The measurement data from stationary and transport applications are stored centrally in a database, and are available at any time. All measurement values are thus under control! It goes without saying that testo Saveris complies with the EN12830 standard.

## Monitoring in production, storage and transport in industry

A number of quality data must be recorded and monitored in production, storage and transport in industry. testo Saveris automates the documentation of these data and provides alarms when upper or lower limit values are exceeded. The quality of the products and processes is thus guaranteed at a stable level.

testo Saveris is ideally applicable for the monitoring and documentation of ambient and temperature data in production areas, in storerooms, refrigerators and climate cabinets. At the same time, testo Saveris allows the uninterrupted recording of measurement parameters during the transport of sensitive goods.

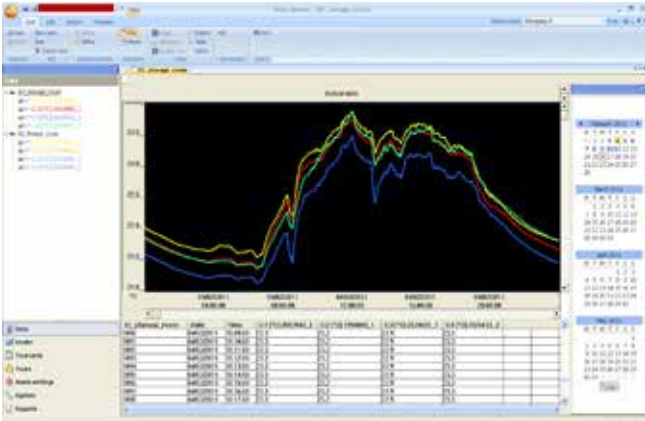
Various applications, stationary as well as in transport, are optimally covered by testo Saveris wireless and/or Ethernet probes.







# testo Saveris software



### Small Business Edition (SBE): Clear information, always up to date, and automatically documented

- The measurement data can always be shown as a graph or table.
- Various probes can be compiled into groups. Logical units by measurement task are thus formed.
- The measurement data view over days, weeks or months is freely definable. The integrated calendar offers practical assistance here.
- Form and time of the reporting are predefined once.
- The creation and saving of reports as a PDF file now takes place automatically in accordance with the set conditions. The files are therefore ready to be printed at any time.



### Professional (PROF): Now more flexible with Professional software

The PROF (Professional) software version offers interesting additional functions beyond the attractive standard functions of the basic version SBE, e.g.:

- Client-server concept: The measurement data can be monitored by various PCs integrated into the network.
- Photographs of machines or rooms can be saved as an image. The respective measurement values are shown directly at the position of the probe in the room or at the machine in these. The link between the location and the measurement value is thus very easily visualized.
- A comprehensive alarm management offers the option of alarming more than two people at the same time or in succession. Depending on the day of the week and/or the time, it is possible to choose whether an alarm is given as an e-mail or an SMS.
- Tour planning with calendar management allows a clear presentation of planned and completed transports.



### CFR version: Validatable CFR software

The CFR software fulfils the requirements of the FDA's 21 CFR Part 11 and is thus validatable.

**testo Saveris Web Access:  
Flexible measurement data viewing via browser**

- Measurement data can be viewed via the browser of any PC, smartphone or tablet – without software installation
- Intuitive user interface
- Easy acknowledgement of alarms



**Installation made easy**

- Connect testo Saveris base to mains. The probes can now be logged on at the base: They are switched on in series and automatically identified by the base.
- The testo Saveris base is connected to the PC via USB or Ethernet. The software is installed on the PC with help from the installation wizard.
- The system is ready for configuration: Probe name, limit values, measuring cycles and alarms can be adapted to the individual measuring tasks.

**Overview of software functions**

	SBE	PROF	CFR
Diagrams/tables/alarm overview/PDF reports	•	•	•
Calendar management	•	•	•
Presentation of probe groups	•	•	•
Alarm dispatch (e-mail, SMS, relay)	•	•	•
Comprehensive alarm management in stationary operation		•	•
Automatic measurement data update		•	•
"Online mode" in stationary operation		•	•
Measurement data on background photo of measurement sites		•	•
Integration in network (client-server)		•	•
Tour planning with calendar management		•	•
Allocation of access rights for stationary and mobile probe groups		•	•
Search function for routes		•	•
Configuration of print text		•	•
Diagrams/tables with identification of start and stop of route		•	•
Audit trail for the traceability of user activities		•	•
21 CFR Part 11 compliant (validatable)			•
Electronic signature			•
Allocation of access rights on three user levels			•

**Overview of application areas of testo Saveris software**

	SBE	PROF	CFR
Stationary operation	•	•	•
Mobile operation		•	•
Stationary and mobile operation		•	•

**Software versions**

SBE software, incl. USB connecting cable base-PC Order no. 0572 0180
PROF software, incl. USB connecting cable base-PC Order no. 0572 0181
CFR software, incl. Ethernet connecting cable base-PC Order no. 0572 0182
testo Saveris Web Access Order no. 0572 0001

# testo Saveris-Base

The base is the heart of testo Saveris and can save 40,000 readings per measurement channel independently of the PC. The system data and alarms are visible via the display of the testo Saveris-Base.

- Display for showing alarms and system data
- Large data memory
- Issue of alarms via LED/relay
- SMS alarm (optional)
- Emergency battery integrated
- Up to 150 probes can be connected
- Connection option via USB or Ethernet



Technical data	
Memory	40,000 values per channel (total max. 18,000,000 values)
Dimensions	225 x 150 x 49 mm
Weight	Approx. 1510 g
Protection class	IP42
Material/Housing	Diecast zinc/plastic
Radio frequency	868 MHz
Power supply (absolutely necessary)	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, power consumption 4 W
Rech. batt.*	Li-ion battery (for data back-up and for emergency SMS if power supply fails)
Oper. temp.	+5 to +45 °C
Storage temp.	-25 to +60 °C
Display	graphical display, 4 control keys
Interfaces	USB, radio, Ethernet
Connectable radio probe	max. 15 probes can be directly connected via wireless interface, max. 150 total via wireless/Router/Converter/Ethernet/Extender, max. 450 channels
Alarm relay	max. 1 A, max. 30 W, max. 60/25 V DC/AC, NC or NO contact
GSM module	850/900/1800/1900 MHz not valid for Japan and South Korea
Set up	Table base and wall bracket included
Firmware version	2.X

\*Wearing part

### Ordering data

868 MHz	testo Saveris-Base, radio frequency 868 MHz	868 MHz	testo Saveris-Base, radio frequency 868 MHz, GSM module integrated (for SMS alarm)
	Part no. 0572 0220		Part no. 0572 0221

No mains units or aerials with magnetic base are contained in this ordering data.

### Note on the radio frequencies

))) 868 MHz: EU countries and certain other countries (e.g. CH, CN, NOR) Country list at [www.testo.com/saveris](http://www.testo.com/saveris)

# testo Saveris-Cockpit Unit

The testo Saveris-Cockpit Unit displays all measurement values to the driver without interruption during transport. If limit values are violated, the driver is immediately warned. Alternatively, the complete data recording can be printed out at the handover site of the goods using an infrared printer on the Cockpit Unit.

- Display for showing alarms and system data

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- Large data memory

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- Alarms via LED

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- Printout of readings using infrared printer

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- Emergency battery integrated

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- Up to 8 probes can be connected

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- Wireless, USB and infrared interfaces

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## Technical data

Memory	max. 20,000 measurement values
Dimensions	Approx. 150 x 90 x 40 mm
Weight	Approx. 210 g
Protection class	IP30
Material/Housing	Plastic
Radio frequency	868 MHz
Power supply (absolutely necessary)	Mini-USB cable incl. adapter 12/24 V DC
Rech. battery*	NiMH rechargeable battery (for securing data in case of power failure)
Oper. temp.	-30 to +65 °C
Storage temp.	-40 to +85 °C
Display	graphical display, 4 control keys
Interfaces	Wireless, USB, infrared
Connectable radio probe	up to 2 zones with 4 wireless probes each, max. 32 channels
Attachment	Sucker pad with telescope function

\*Wearing part

## Ordering data

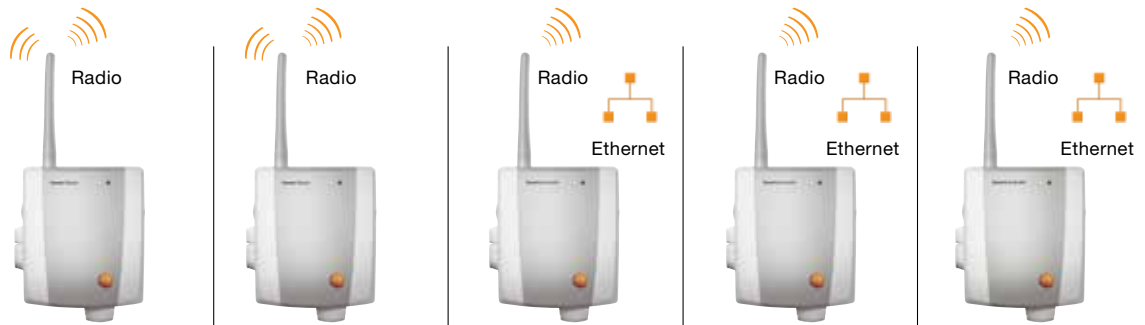
868 MHz	testo Saveris-Cockpit Unit incl. mini-USB-cable and adapter 12/24 V DC
	Part no. 0572 0222

# testo Saveris components: Router, Converter and Extender

The radio link can be improved or lengthened in poor structural conditions by using a router. Several routers can of course be used in the testo Saveris system. At the same time, the serial switching of up to 3 routers V 2.0 offers highest flexibility in the wireless range.

Through the connection of a converter to an Ethernet jack, the signal of a radio probe can be converted into an Ethernet signal. This combines the flexible connection of the radio probe with the use of the existing Ethernet even over long transmission paths.

By connecting an Extender, the wireless signal of a transport probe is converted into an Ethernet signal. The data transfer from probe to Extender takes place automatically when sufficient wireless connection is present.



	<b>testo Saveris-Router V 1.0</b>	<b>testo Saveris-Router V 2.0</b>	<b>testo Saveris-Converter V 1.0</b>	<b>testo Saveris-Converter V 2.0</b>	<b>testo Saveris-Extender</b>
Application	<ul style="list-style-type: none"> <li>for testo Saveris-Base Firmware Version V 1.X</li> </ul>	<ul style="list-style-type: none"> <li>for testo Saveris-Base Firmware Version V 2.X</li> </ul>	<ul style="list-style-type: none"> <li>for testo Saveris-Base Firmware Version V 1.X</li> <li>only for wireless probes Firmware Version 1.X</li> </ul>	<ul style="list-style-type: none"> <li>for all testo Saveris-Base Firmware versions</li> <li>only for wireless probes with Firmware versions 2.X</li> </ul>	<ul style="list-style-type: none"> <li>for testo Saveris-Base Firmware Version V 2.X</li> <li>only for wireless probes with Firmware versions 2.X</li> </ul>
Dimensions	Approx. 180 g		Approx. 85 x 100 x 38 mm		
Weight	Approx. 180 g		Approx. 190 g		
Power supply	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, power consumption < 0.5 W		6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, PoE, power consumption < 2 W		
Oper. temp.	-20 to +50 °C				
Storage temp.	-40 to +60 °C				
Material/Housing	Plastic				
Protection class	IP54				
Interfaces	Radio		Radio, Ethernet		
Connectable radio probe	max. 5		max. 15		max. 15 stationary max. 100 mobile
Router cascading	no	yes	-	-	-
Wall bracket	included				

Versions					
868 MHz	testo Saveris-Router V 1.0, 868 MHz, radio transmission medium	testo Saveris-Router V 2.0, 868 MHz, radio transmission medium	testo Saveris-Converter V 1.0, 868 MHz, converts the radio transmission medium to Ethernet	testo Saveris-Converter V 2.0, 868 MHz, converts the radio transmission medium to Ethernet	testo Saveris-Extender 868 MHz, converts the radio transmission medium to Ethernet
	Part no. 0572 0119	Part no. 0572 0219	Part no. 0572 0118	Part no. 0572 0218	Part no. 0572 0217

No mains units are contained in this ordering data.

# testo Saveris: Accessories

Power supply		Part no.
Battery for radio probe (4 AA alkali manganese mignon batteries)		0515 0414
Battery for radio probe for use below -10 °C (4 x Energizer L91 Photo lithium)		0515 0572
Li-ion rechargeable battery for testo Saveris-Base, Ethernet probe and testo Saveris analog coupler U1E		0515 0021
Mains unit international 100-240 V AC/6.3V DC for mains operation or battery charging in instrument		0554 1096
Power supply (top-hat rail mounting) 90 to 264 VAC/24VDC (2.5 A)		0554 1749
Power supply (desktop) 110 to 240 VAC/ 24VDC (350 mA)		0554 1748
Other features		Part no.
1	Magnetic foot aerial (dualband) with 3 m cable, for base with GSM module (not suitable for USA, Canada, Chile, Argentina, Mexico)	0554 0524
	Magnetic foot aerial (quadband) for base with GSM module	0554 0525
2	Alarm module (visual + acoustic), can be connected to base alarm relay, Ø 70 x 164 mm, 24 V AC/DC/320 mA, perm. light: red, perm. tone: buzzer approx. 2.4 kHz (Mains unit 0554 1749 required)	0572 9999 ID-Nr. 0699 6111/1
3	testo Saveris protective housing for protection from high-pressure cleaning and impact, IP69 K suitable for wireless probes T1/T1D/T2/T2D/Pt/PtD/H4D	0572 0200
4	Testo fast printer with wireless infrared interface, 1 roll of thermal paper and 4 AAA batteries, for printout of measurement values from testo Saveris-Cockpit Unit, operating temperature 0 to +50 °C	0554 0549
	Programming adapter (from mini-DIN to USB) for Base, Ethernet probe, Converter and Extender for the configuration of IP addresses, as well as for the adjustment of testo Saveris probes via testo Saveris adjustment software	0440 6723
Software		Part no.
SBE software, incl. USB connecting cable base-PC		0572 0180
PROF software, incl. USB connecting cable base-PC		0572 0181
CFR software, incl. Ethernet connection cable base to PC		0572 0182
testo Saveris Web Access		0572 0001
testo Saveris adjustment software incl. connection cable for wireless and Ethernet probes		0572 0183
Calibration Certificates		Part no.
ISO calibration certificate temperature; temperature probes; calibration points -8 °C; 0 °C; +40 °C per channel/instrument (suitable for testo Saveris T1/T2)		0520 0171
ISO calibration certificate temperature; temperature probes; calibration points -18 °C; 0 °C; +60 °C; per channel/instrument (not suitable for testo Saveris T1/T2)		0520 0151
DAkKS calibration certificate temperature; temperature probes; calibration points -20 °C; 0 °C; +60 °C; per channel/instrument (not suitable for testo Saveris T1/T2)		0520 0261
ISO calibration certificate humidity; humidity probe, calibration points 11.3 %RH and 75.3 %RH at +25 °C/+77 °F; per channel/instrument		0520 0076
DAkKS calibration certificate humidity; humidity probe, calibration points 11.3 %RH and 75.3 %RH at +25 °C; per channel/instrument		0520 0246



Magnetic foot aerial (dualband)



Alarm module (visual + acoustic), can be connected to base alarm relay




testo Saveris protective housing







Testo fast printer

# testo Saveris components: Radio probes

Probe versions with internal and external temperature sensors and with humidity sensors allow the adaptation to every application. The radio probes are available with or without a display as an option. Current measurement data, the battery status and the quality of the radio link are shown in the display.







		°C/°F			
		NTC internal	NTC internal	NTC external	TC external
					
		<b>testo Saveris T1</b> Radio probe with internal NTC	<b>testo Saveris T2</b> Radio probe with external NTC, door contact	<b>testo Saveris T3</b> 2-channel radio probe with 2 external TC probe connections (Choice of TC characteristics)	<b>testo Saveris Pt</b> Radio probe with 1 external Pt100 probe connection
Internal sensor	Probe type	<b>NTC</b>	<b>NTC</b>	-	-
	Meas. range	-35 to +50 °C	-35 to +50 °C	-	-
	Accuracy	±0.4 °C (-25 to +50 °C) ±0.8 °C (remaining range)	±0.4 °C (-25 to +50 °C) ±0.8 °C (remaining range)	-	-
	Resolution	0.1 °C	0.1 °C	-	-
External probe	Probe type	-	<b>NTC</b>	<b>TC type K</b>	<b>TC type J</b>
	Meas. range (Instrument)	-	-50 to +150 °C	-195 to +1350 °C	-100 to +750 °C
	Accuracy (Instrument)	-	±0,2 °C (-25 to +70 °C) ±0,4 °C (remaining range)	±0.5 °C or 0.5% of mv	
	Resolution (Instrument)	-	0.1 °C	0.1 °C/TC type S 1 °C	<b>Pt100</b>
Connection	-	NTC via mini-DIN socket, door contact connection cable included in delivery (1.80 m)	2 TCs via TC socket, max. difference in potential 2 V	1 Pt100 via mini-DIN socket	
Dimensions (housing):		80 x 85 x 38 mm			
Weight		Approx. 240 g			
Battery life (Type: 4 AA batteries)		Battery life at +25 °C, 3 years; for freezer applications, 3 years with L91 Photo lithium Energizer batteries			
Material/Housing		Plastic			
Protection class		IP68		IP54	IP68
Radio frequency		868 MHz			
Measuring rate		Standard 15 min, 1 min to 24 h can be set			
Memory		6,000 measurement values per channel			
Conformity to standards		DIN EN 12830		-	
Oper. temp.		-35 to +50 °C		-20 to +50 °C	
Storage temp.		-40 to +55 °C (incl. batteries)			
Display (optional)		LCD, 2 lines; 7-segment with symbols			
Transmission distance		approx. 300 m without obstruction at a frequency of 868 MHz			
Wall bracket		included			

Versions		testo Saveris T1	testo Saveris T2	testo Saveris T3	testo Saveris Pt
868 MHz	<b>Version without display</b>	Part no. 0572 1210 *	Part no. 0572 1211 *	Part no. 0572 9212 *	Part no. 0572 7211 *
	<b>Version with display</b>	Part no. 0572 1220 *	Part no. 0572 1221 *	Part no. 0572 9222 *	Part no. 0572 7221 *





**Radio**

%RH NTC		°C/°F and %RH		mA and V	
external	internal	external	internal	mA	V
					
<b>testo Saveris H2D</b> Wireless humidity probe	<b>testo Saveris H3</b> Humidity radio probe	<b>testo Saveris H4D</b> Wireless probe with 1 external humidity probe connection	<b>testo Saveris U1</b> Wireless probe with current/voltage output		

Internal sensor	Probe type	-		<b>NTC</b>	<b>Humidity sensor</b>	-		1 channel: current/voltage input
	Meas. range	-		-20 to +50 °C	0 to 100 %RH <sup>1)</sup>	-		2-wire: 4 to 20 mA, 4-wire: 0/4 to 20 mA, 0 to 1/5/10 V, load: max. 160 Ω at 24 V DC
	Accuracy	-		±0.5 °C	±3 %RH at +25 °C ±0.03 %RH/K ±1 digit	-		Current ±0.03 mA/0.75 µA Voltage 0 to 1 V ±1.5 mV/39 µV Voltage 0 to 5 V ±7.5 mV/0.17 mV Voltage 0 to 10 V ±15 mV/0.34 mV ±0.02% of. m.v./K deviating from nominal temperature 22 °C
	Resolution	-		0.1 °C	0.1 °C%/0,1 °C td	-		-
External probe	Probe type	<b>NTC</b>	<b>Humidity sensor</b>	-		<b>NTC</b>	<b>Humidity sensor</b>	-
	Meas. range (Instrument)	-20 to +50 °C	0 to +100 %RH 1)	-		-20 to +70 °C	0 to +100 %RH 1)	-
	Accuracy (Instrument)	±0.5 °C	to 90 %RH: ±2 %RH at +25 °C > 90 %RH: ±3 %RH at +25 °C ±0.03 %RH/K ±1 digit	-		±0.2 °C	see probes	-
	Resolution (Instrument)	0.1 °C	0,1%/0,1 °C td	-		0.1 °C	0.1%/0,1 °C td	-
Connection	non-exchangeable stump probe		-		1 x external humidity probe mini DIN socket		2 or 4-wire current/voltage output Service interface mini DIN for adjustment	
Dimensions (housing):	85 x 100 x 38 mm		80 x 85 x 38 mm		Approx. 85 x 100 x 38 mm		Approx. 240 g	
Weight	Approx. 256 g		Approx. 245 g		Approx. 240 g		Supply: Mains unit 6.3 V DC, 20 to 30 V DC max. 25 V AC	
Battery life (Type: 4 AA batteries)	Battery life at +25 °C, 3 years; for freezer applications, 3 years with L91 Photo lithium Energizer batteries						Supply: Mains unit 6.3 V DC, 20 to 30 V DC max. 25 V AC	
Material/Housing	Plastic							
Protection class	IP54		IP42		IP54			
Radio frequency	868 MHz							
Measuring rate	Standard 15 min, 1 min to 24 h can be set							
Memory	6,000 measurement values per channel							
Oper. temp.	-20 to +50 °C						+5 to +45 °C	
Storage temp.	-40 to +55 °C (incl. batteries)						-25 to +60 °C	
Display (optional)	LCD, 2 lines; 7-segment with symbols						(no display)	
Transmission distance	approx. 300 m without obstruction at a frequency of 868 MHz							
Wall bracket	included							

Versions					
868 MHz	Version without display	_____	<b>testo Saveris H3</b> Part no. 0572 6210 *	_____	<b>testo Saveris U1</b> Part no. 0572 3210 *
	Version with display	<b>testo Saveris H2 D</b> Part no. 0572 6222 *	<b>testo Saveris H3 D</b> Part no. 0572 6220 *	<b>testo Saveris H4 D</b> Part no. 0572 6224 *	_____

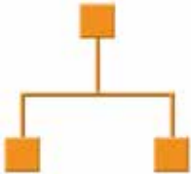
The alkali manganese batteries AA (0515 0414) are included in these ordering data (analog coupler excluded). testo Saveris probes are delivered with a calibration protocol of the factory adjustment data. Calibration certificates must be ordered separately.

1) Not for condensing atmosphere. For continuous applications in high humidity (>80 %RH at ≤30 °C for >12 h, >60 %RH at >30 °C for >12h), please contact us via [www.testo.com](http://www.testo.com).




\*The testo Saveris-Converter V 2.0 (order no. 0572 0218) is required for integration of testo Saveris wireless probes into systems with Base Firmware V 1.X. For more information please contact our customer hotline or your Testo partner.

# testo Saveris components: Ethernet probes

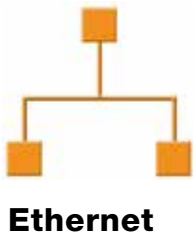
The existing LAN infrastructure can be used through the Ethernet probe. This allows the data transfer from the probe to the base, even over long distances. Ethernet probes have a display.







**Ethernet**

				°C			
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">NTC</div> <small>external</small>		<div style="border: 1px solid black; padding: 2px; display: inline-block;">TC</div> <small>external</small>		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Pt 100</div> <small>external</small>		
	<b>testo Saveris T1E</b>	Ethernet probe with 1 external probe connection NTC		<b>testo Saveris T4 E</b>	4-channel Ethernet probe with 4 external TC probe connections	<b>testo Saveris Pt E</b>	Ethernet probe with external Pt100 probe connection
External probe	Probe type	<b>NTC</b>		<b>TC type K</b>	<b>TC type J</b>	<b>Pt100</b>	
	Meas. range (Instrument)	-50 to +150 °C		-195 to +1350 °C	-100 to +750 °C	-200 to +600 °C	
	Accuracy (Instrument)	±0.2 °C (-25 to +70 °C) ±0.4 °C (remaining range)		±0.5 °C or 0.5% of mv		at +25 °C ±0.1 °C (0 to +60 °C) ±0.2 °C (-100 to +200 °C) ±0.5 °C (remaining range)	
	Resolution (Instrument)	0.1 °C		0.1 °C/TC type S 1 °C		0.01 °C	
Connection	1 x NTC via mini DIN socket		4 TCs via TC socket, max. difference in potential 50 V		1 Pt100 via mini-DIN socket		
Mini-DIN service interface for adjustment is accessible externally							
Dimensions (housing):	Approx. 85 x 100 x 38 mm						
Weight	Approx. 220 g						
Power	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, PoE						
Buffer battery	Li-ion (wearing part)						
Material/Housing	Plastic						
Protection class	IP54						
Measuring rate	2 s to 24 h						
Memory	6,000 measurement values per channel						
Oper. temp.	+5 to +45 °C						
Storage temp.	-25 to +60 °C						
Power consumption	PoE Class 0 (typical ≤ 3 W)						
Display (optional)	LCD, 2 lines; 7-segment with symbols						
Wall bracket	included						
<b>Versions</b>	<b>testo Saveris T1E with display</b>	<b>testo Saveris T4 E with display</b>			<b>testo Saveris Pt E with display</b>		
	Part no. 0572 1191	Part no. 0572 9194			Part no. 0572 7191		






testo Saveris probes are delivered with a calibration protocol of the factory adjustment data. Calibration certificates must be ordered separately. Mains units are not included in delivery.



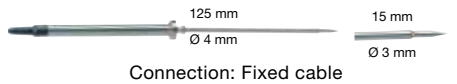
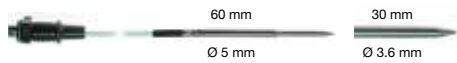
°C/°F and %RH			mA and V					
%RH	NTC	external	%RH	NTC	external	mA	V	internal
								
<b>testo Saveris H1 E</b> Humidity Ethernet probe 1%		<b>testo Saveris H2 E</b> Humidity Ethernet probe 2%		<b>testo Saveris H4 E</b> Ethernet probe with external humidity probe connection		<b>testo Saveris U1 E</b> Ethernet probe with current/voltage		

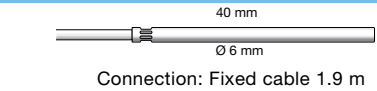
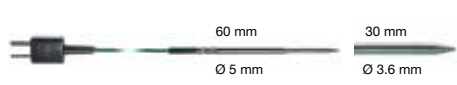
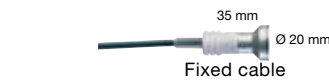
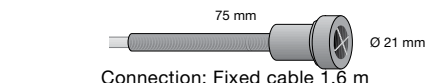
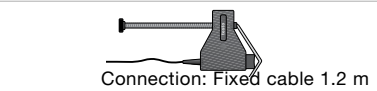

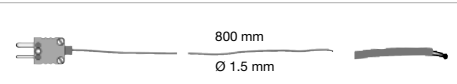
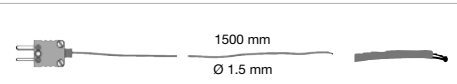
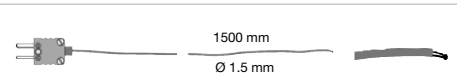
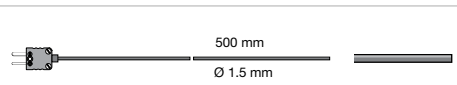

Internal sensor	Probe type	—		—		—		1 channel: current/voltage
	Meas. range	—		—		—		2-wire: 4 to 20 mA, 4-wire: 0/4 to 20 mA, 0 to 1/5/10V, load: max. 160 Ω at 24 V DC
	Accuracy	—		—		—		Current ±0,03 mA/0,75 µA Voltage 0 to 1 V ±1,5 mV/39 µV Voltage 0 to 5 V ±7,5 mV/0,17 mV Voltage 0 to 10 V ±15 mV/0,34 mV ±0,02% of. m.v./K deviating from nominal temperature 22 °C
External probe	Probe type	NTC	Humidity sensor	NTC	Humidity sensor	NTC	Humidity sensor	—
	Meas. range (Instrument)	-20 to +70 °C	0 to 100 %RH <sup>1)</sup>	-20 to +70 °C	0 to 100 %RH <sup>1)</sup>	-20 to +70 °C	0 to 100 %RH <sup>1)</sup>	—
	Accuracy (Instrument)	±0,2 °C (0 to +30 °C) ±0,5 °C (remaining range)	to 90 %RH: ±1 %RH +0,7 % of mv at +25 °C > 90 %RH: ±1,4 %RH +0,7 % of mv ±0,03 %RH/K ± 1 digit	±0,5 °C	to 90 %RH: ±2 %RH at +25 °C > 90 %RH: ±3 %RH at +25 °C ±0,03 %RH/K ± 1 digit	±0,2 °C	see external probes	—
	Resolution (Instrument)	0,1 °C	0,1%/0,1 °C td	0,1 °C	0,1%/0,1 °C td	0,1 °C	0,1%/0,1 °C td	—
Connection	—					1 x external Ethernet humidity probe mini DIN socket		1 x 2- or 4-wire current/voltage
Mini-DIN service interface is accessible externally								
Dimensions (housing):	Approx. 85 x 100 x 38 mm							
Weight	Approx. 230 g				Approx. 254 g		Approx. 240 g	
Power	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, PoE							
Buffer battery	Li-ion (wearing part)							
Material/Housing	Plastic							
Protection class	IP54							
Measuring rate	2 s to 24 h							
Memory	6,000 measurement values per channel							
Oper. temp.	+5 to +45 °C							
Storage temp.	-25 to +60 °C							
Power consumption	PoE Class 0 (typical ≤ 3 W)							
Display (optional)	LCD, 2 lines; 7-segment with symbols						no display	
Wall bracket	included							
<b>Versions</b>	<b>testo Saveris H1 E with display</b> Part no. 0572 6191		<b>testo Saveris H2 E with display</b> Part no. 0572 6192		<b>testo Saveris H4 E with display</b> Part no. 0572 6194		<b>testo Saveris U1 E no display</b> Part no. 0572 3190	

testo Saveris probes are delivered with a calibration protocol of the factory adjustment data. Calibration certificates must be ordered separately. Mains units are not included in delivery.  
1) Not for condensing atmosphere. For continuous applications in high humidity (>80 %RH at ≤30 °C for >12 h, >60 %RH at >30 °C for >12h), please contact us via [www.testo.com](http://www.testo.com).

Sintered caps for testo Saveris H1 E, H2 E and H2 D probes		Part no.
	Metal protection cage, Ø 12 mm for humidity probes, for measurement in flow velocities of less than 10 m/s	0554 0755
	Stainless steel sintered filter, pore size 100 µm, sensor protection in dusty atmospheres or higher flow velocities, for measurements at higher flow velocities or in contaminated air	0554 0641
	Cap with wire mesh filter, Ø 12 mm	0554 0757
	Sintered PTFE filter, Ø 12 mm, for corrosive media, High humidity range (long-term measurements), high flow velocities.	0554 0756
	Testo saline pots for testing and humidity calibration of humidity sensors, 11.3 %RH and 75.3 %RH, incl. adapter for humidity probes, fast testing or calibration of humidity probe	0554 0660


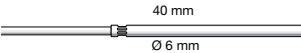

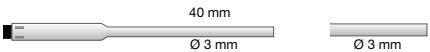
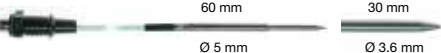

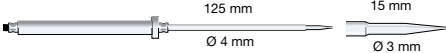
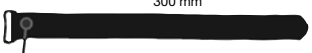
# testo Saveris accessories: External temperature and humidity probes

Pt 100	Plug-in probes	Illustration	Measuring range	Accuracy	t <sub>99</sub>	Part no.
◆	Robust, Pt100 stainless steel food probe (IP65)		-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range)	10 s	0609 2272
◆	Penetration probe Pt100 with ribbon cable, cable length 2 m, IP54		-85 to +150 °C	Class A	35 s	0572 7001
Connection cable for unlimited Pt100 stationary probes (4-wire technology), Cable length: 3 m possible max. cable length: 20 m						0554 0213



TC	Plug-in probes	Illustration	Measuring range	Accuracy	t <sub>99</sub>	Part no.
◆	Stationary probe with stainless steel sleeve, TC Type K		-50 to +205 °C	Class 2*	20 s	0628 7533
◆	Penetration probe TC with ribbon cable, Type K, cable length 2 m, IP54		-40 to +220 °C	Class 1	7 s	0572 9001
	Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K		-50 to +170 °C	Class 2*	150 s	0602 4792
	Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K		-50 to +400 °C	Class 2*		0602 4892
	Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term up to +280°C, TC Type K		-60 to +130 °C	Class 2*	5 s	0602 4592
	Pipe wrap probe with velcro strip; for temperature measurement on pipes with diameter up to max. 120 mm; Tmax. +120 °C; TC Type K		-50 to +120 °C	Class 1*	90 s	0628 0020
	Thermocouple with TC adapter, flexible, 800mm long, fibre glass, TC Type K		-50 to +400 °C	Class 2*	5 s	0602 0644
	Thermocouple with TC adapter, flexible, 1500mm long, fibre glass, TC Type K		-50 to +400 °C	Class 2*	5 s	0602 0645
	Thermocouple with TC adapter, flexible, 1500mm long, PTFE, TC Type K		-50 to +250 °C	Class 2*	5 s	0602 0646
	Immersion tip, flexible, TC Type K		-200 to +1000 °C	Class 1*	5 s	0602 5792
	Immersion measurement tip, flexible, for measurements in air/exhaust gases (not suitable for measurements in smelters), TC Type K		-200 to +1300 °C	Class 1*	4 s	0602 5693

◆ The specified accuracy class of the testo Saveris radio and Ethernet probe is achieved using these external probes.

\*According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +1000 °C (Type K), Class 2 to -40 to +1200 °C (Type K), Class 3 to -200 to +40 °C (Type K).

NTC	Plug-in probes	Illustration	Measuring range	Accuracy	t <sub>99</sub>	Part no.
◆	Stub probe, IP54		-20 to +70 °C	±0.2 °C (-20 to +40 °C) ±0.4 °C (+40.1 to +70 °C)	15 s	0628 7510
◆	Stationary probe with aluminium sleeve, IP65	 Connection: Fixed cable; Cable/length: 2.4 m	-30 to +90 °C	±0.2 °C (0 to +70 °C) ±0.5 °C (remaining range)	190 s	0628 7503*
◆	Accurate imm./pen. probe, 6m cable, IP67	 Connection: Fixed cable; Cable/length: 6 m	-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	5 s	0610 1725*
◆	Accurate immersion/penetration probe, cable: 1.5 m long, IP67	 Connection: Fixed cable; Cable/length: 1.5 m	-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	5 s	0628 0006*
◆	Penetration probe NTC with ribbon cable, cable length 2 m, IP54	 Connection: Fixed cable; Cable/length: 2 m	-40 to +125 °C	±0.5 % of mv (+100 to +125 °C) ±0.2 °C (-25 to +80 °C) ±0.4 °C (remaining range)	8 s	0572 1001
	Wall surface temperature probe, e.g. to prove damage in building material	 Connection: Fixed cable; Cable/length: 3 m	-50 to +80 °C	±0.2 °C (0 to +70 °C)	20 s	0628 7507
◆	Stainless steel NTC food probe (IP65) with PUR cable	 Connection: Fixed cable; Cable/length: 1.6 m	-50 to +150 °C <sup>2)</sup>	±0.5 % of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 2211*
	Pipe wrap probe with Velcro for pipe diameter to max. 75 mm, Tmax. +75°C, NTC	 Connection: Fixed cable; Cable/length: 1.5 m	-50 to +70 °C	±0.2 °C (-25 to +70 °C) ±0.4 °C (-50 to -25.1 °C)		0613 4611

The standard temperature probes from the Testo range can be individually tailored to your application. For more information please contact your Testo partner.

%RH	Plug-in probes	Illustration	Measuring range	Accuracy	Part no.
◆	Humidity/temperature probe 12 mm		-20 to +70 °C 0 to 100 %RH	±0.3 °C ±2 %RH at +25 °C (2 to 98 %RH) ±0.03 %RH/K ± 1 digit	0572 6172
◆	Humidity/Temperature Probe 4 mm		0 to +40 °C 0 to 100 %RH	±0.3 °C ±2 %RH at +25 °C (2 to 98 %RH) ±0.08 %RH/K ± 1 digit	0572 6174

◆ The specified accuracy class of the testo Saveris radio and Ethernet probe is achieved using these external probes.

\* Probe tested to EN 12830 for suitability in the transport and storage sectors  
2) Long-term measurement range +125°C, short-term +150°C or +140°C (2 minutes)

## Adjustment

Naturally all testo Saveris probes are adjusted in the factory, which is confirmed by an adjustment report. You can perform further calibrations or adjustments either yourself on site, via a service provider or in a calibration laboratory. The separate testo Saveris adjustment software is available for this. After successful adjustment, the current data is stored in the probe. At the same time, the adjustment software and the testo Saveris-Software accept this data so that the adjustment histories are available.

Radio and Ethernet probes are connected to a cable via the service interface for adjustment.

If you do not wish to perform your own calibration, Testo is available as a service provider.



testo Saveris adjustment software incl. connection cable for wireless and Ethernet probes

Part no. 0572 0183

## Worldwide presence

Testo is a manufacturer of measuring instruments and measuring systems with a global presence, with 31 international subsidiaries and representatives in numerous countries. Naturally, Testo also offers you on-site service. For questions regarding testo Saveris, from installation to

retrofitting further system components, please refer to your competent contact in your country.

You can find an overview of the nearest service location at [www.testo.com](http://www.testo.com).



