



Committing to the future

# Measure, document, issue alarms.

Automated with **testo Saveris™**.



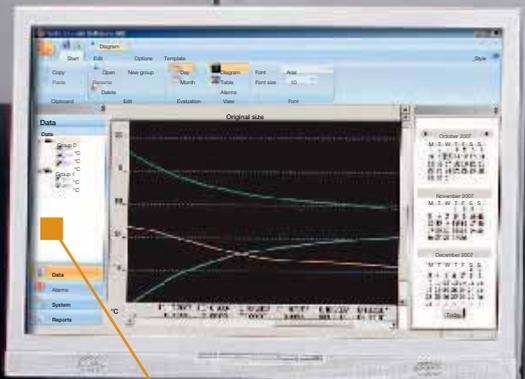
## testo Saveris™: Simple, secure and efficient measurement data monitoring

The testo Saveris measurement system measures temperature and humidity values in the environment and in processes.

The easy-to-use measurement system delivers safety and time savings thanks to automated measurement data recording.

2

- Quick overview of system components
- Long-term memory provides safety and independence from the PC
- Alarm even without running PC
  - via LED
  - via relay output
  - via SMS
- Radio probe and Ethernet probe can be combined in one system



3

- Simple installation and configuration within few minutes
- Alarm via e-mail or directly on the screen
- Efficiency by means of central data storage of all measurement data
- Automatic creation of PDF reports

testo Saveris is ideally suited for

- and documentation of temperature or humidity data in production, quality assurance and R&D as well as in buildings
- Monitoring the storage climate of temperature and humidity sensitive products, e.g. valuable inventory, medicines and foodstuffs
- the foodstuff cooling chain

1

- Precise measurement of temperature and humidity values
- The simplest probe logon at commissioning
- Manual start or read out no longer required
- Radio probe: simple connection without routing cables
- Safety through bidirectional radio and memory capacity in the probe
- Optimized battery concept for long running life
- Numerous probe versions tailored to every application

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- You have time for the basics.
- testo Saveris measures, documents centrally and issues alarms if limit values are exceeded.

# testo Saveris™ System overview

## testo Saveris radio probe

Probe versions with internal and external temperature and humidity sensors allow the adaptation to every application. The radio probes are available with or without a display as an option. The memory in the probe ensures that the measurement data is not lost in the event of an interference in the radio link. Current measurement data, the battery status and the quality of the radio link are shown in the display.

## testo Saveris router

The radio link can be improved or lengthened with poor structural conditions by using a router. Naturally several routers are possible in the testo Saveris system, but several routers are not connected in series.

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.



## testo Saveris analog coupler

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

## Humidity transmitter testo 6651/6681

Thanks to the integration of the humidity transmitter, measurement data monitoring is possible parallel to the control. This provides 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/transmitter](http://www.testo.com/transmitter)

### testo Saveris base

The base is the heart of testo Saveris and can save 40,000 readings per measurement channel independent of the PC. This corresponds to around one year of memory capacity at a measuring rate of 15 minutes. The system data and alarms are visible via the display of the Saveris base.

### testo Saveris software

The testo Saveris software offers simple operation and an intuitive user interface. The Saveris software is available in two different versions: as the basic version SBE (Small Business Edition) or the PROF (Professional) software version with diverse additional options, or as a CFR version. The CFR software fulfils the requirements or 21 CFR Part 11 of the FDA, and is thus validatable.

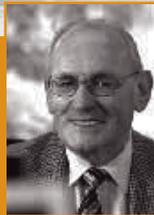


### testo Saveris Ethernet probe

In addition to the wireless probes, probes can be used which are directly connectable to the Ethernet. This allows the existing LAN infrastructure to be used, making data transfer from the probe to the base possible, even over long distances.

By connecting a converter to an Ethernet socket, the signal from a wireless probe can be converted to an Ethernet signal. This combines the flexible positioning of a wireless probe with the use of the existing Ethernet even over long transfer distances.

## Examples of applications for **testo Saveris**<sup>TM</sup>



Günter Ruf, Chairman of the Board of Directors  
Straub Druck + Medien AG

"With testo Saveris, I have the perfect overview over all temperature and humidity data in processes and in the environment. The immediate issue of alarms provides me with important safety."

### Production, quality assurance and storage

In industrial plants, a vast amount of quality data must be recorded in the production, quality assurance and storage of products. testo Saveris automates the documentation of this data and issues alarms if limit values are exceeded. Products and processes are thus secured at a stable quality level.

testo Saveris is ideal to use for monitoring and documenting climate and temperature data in the manufacturing sector, in store rooms, refrigerators and air conditioning chambers. The most varied applications are optimally covered by testo Saveris radio probes or Ethernet probes

### Research & development, laboratories & hospitals

Research and development areas such as laboratories are responsible for recording environmental and process data to monitor sensitive products and machines. testo Saveris takes on the central documentation of the series of measurements.

testo Saveris thus guarantees the simple and secure monitoring of climate and process data in air conditioning chambers, refrigerators, drying chambers or test benches. Thanks to the quick installation of testo Saveris, the system is suitable for short-term and long-term recording.





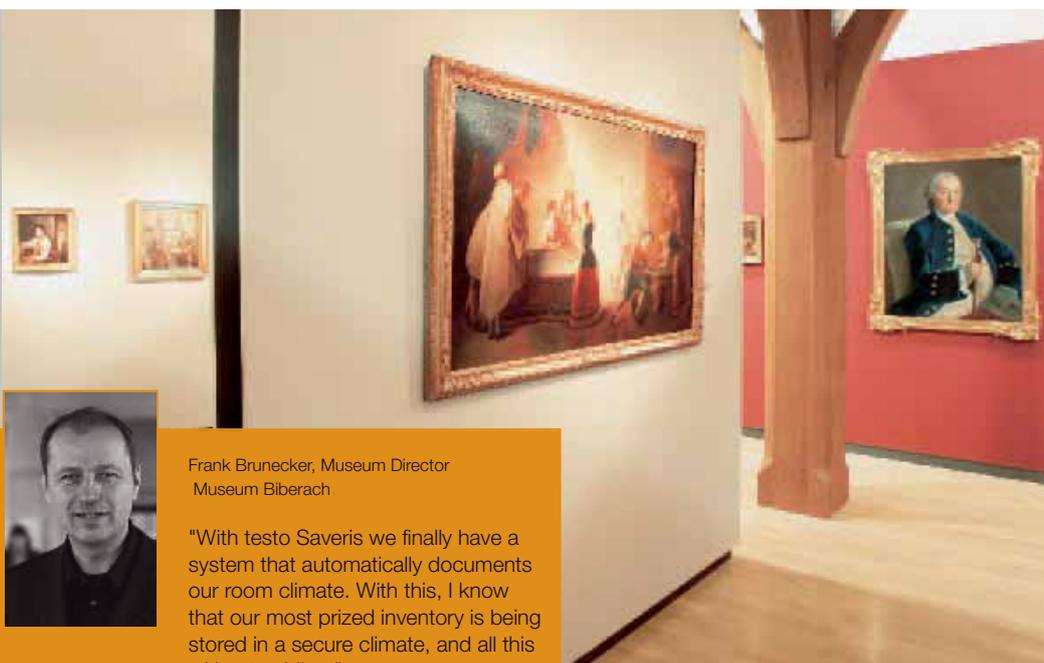
## Monitoring the foodstuff cooling chain

Compliance with predefined temperature values is a decisive factor for quality in food production and is important for complying with legal hygiene requirements. Uninterrupted monitoring of the cooling chain in the supermarket and in specialist retailers is also necessary. testo Saveris automates the monitoring of the ambient and product temperatures in production plants, cold storage and freezer areas. Alarms are issued whenever the limit values are exceeded. The measurement data and alarms that have occurred are saved centrally in a database and are therefore accessible any time. testo Saveris conforms to the EN 12830 standard.

## Monitoring of the building climate

When monitoring the building climate, stable ambient conditions are especially necessary in museums and archives in order to protect sensitive and expensive objects. testo Saveris automates the central recording of all climate data.

By issuing alarms when limit values are exceeded, testo Saveris protects valuable inventory from undesired temperature or humidity influences at all times. The radio probe can be flexibly attached to locations without the effort of routing cables.



Frank Brunecker, Museum Director  
Museum Biberach

"With testo Saveris we finally have a system that automatically documents our room climate. With this, I know that our most prized inventory is being stored in a secure climate, and all this without cabling."

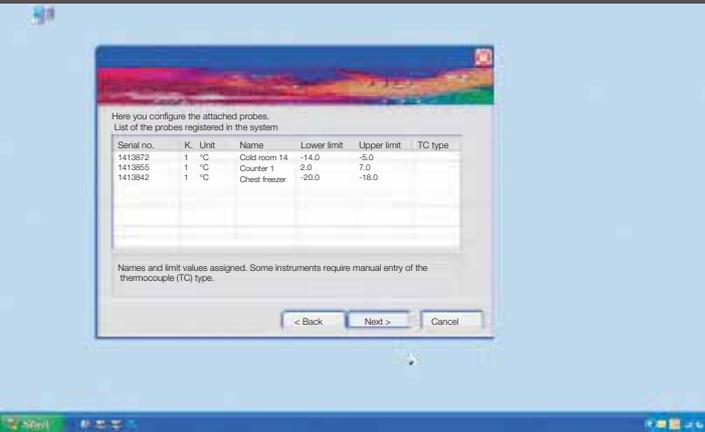


# testo Saveris™ Software

1

## Installation made easy

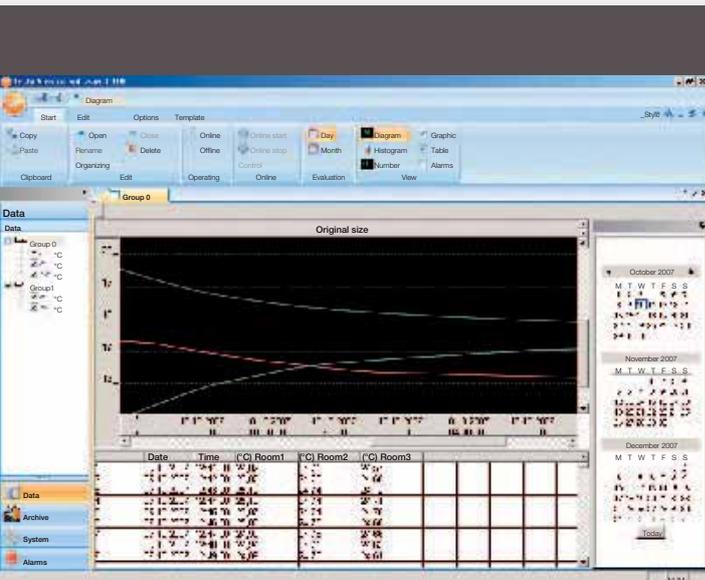
- Connect Saveris base to mains. The probes can now be logged on at the base: The probes are switched on in series and automatically identified by the base.
- The Saveris base is connected to the PC via USB or Ethernet. The software is installed on the PC with help from the installation wizard.
- The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



2

## Clear and always up-to-date

- The measurement data can always be shown as a graphic or table.
- If alarms have been triggered, these can be listed separately.
- Various probes can be compiled into groups. Logical units – according to the measurement task – are thus formed.
- The measurement data view over days, weeks or months is freely definable. The integrated calendar offers practical assistance here.



3

## Automated documentation

- 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.

testo

Daily report

Cold storage house zone: Hourly mean values on 03.08.2007

Time	°C freezer 1	%RH cold room 1	°C refrigerator	°C drinks	°C freezer 2	°C freezer 3	°C freezer 4
01:00	19,2	71,2	5,5	5,5	19,2	19,2	19,2
1:00	19,4	70,9	4,5	4,5	-19,2	-19,4	-19,4
2:00	19,5	70,5	4,5	4,5	19,5	19,5	19,5
3:00	19,5	70,1	5,1	5,1	-19,5	-19,5	-19,5
4:00	19,2	71,4	5,5	5,5	19,2	19,2	19,2
5:00	19,5	70,7	5,2	5,2	-19,2	-19,2	-19,2
6:00	19,1	70,9	5,1	5,1	19,1	19,2	19,1
7:00	19,0	71,3	5,0	5,0	-19,0	-19,0	-19,0
8:00	19,9	70,9	5,7	5,7	19,9	19,9	19,9
9:00	21,2	70,6	5,4	5,4	-21,2	-21,2	-21,2
10:00	19,5	70,8	5,2	5,2	19,5	19,5	19,5
11:00	19,2	70,5	4,2	4,2	-19,2	-19,2	-19,2
12:00	19,7	70,5	4,5	4,5	19,7	19,7	19,7
13:00	19,2	71,1	5,2	5,2	-19,2	-19,2	-19,2
14:00	19,5	70,5	4,5	4,5	19,5	19,5	19,5
15:00	19,7	70,1	5,1	5,1	-19,7	-19,7	-19,7
16:00	19,6	70,2	5,2	5,2	19,6	19,6	19,6
17:00	19,1	71,3	5,2	5,2	-19,1	-19,1	-19,1
18:00	19,2	70,1	4,5	4,5	19,2	19,2	19,2
19:00	19,2	71,3	5,2	5,2	-19,2	-19,2	-19,2
20:00	19,2	70,9	5,2	5,2	19,4	19,4	19,4
21:00	19,5	70,5	4,2	4,2	-19,5	-19,5	-19,5
22:00	19,1	70,5	5,0	5,0	19,1	19,1	19,1
23:00	19,2	71,1	5,2	5,2	-19,2	-19,2	-19,2
Total maximum value	19,1	70,5	5,2	5,2	19,1	19,2	19,1
Total average value	19,2	70,5	5,2	5,2	19,2	19,2	19,2
Total minimum value	21,2	66,1	4,2	4,2	-21,2	-21,2	-21,2

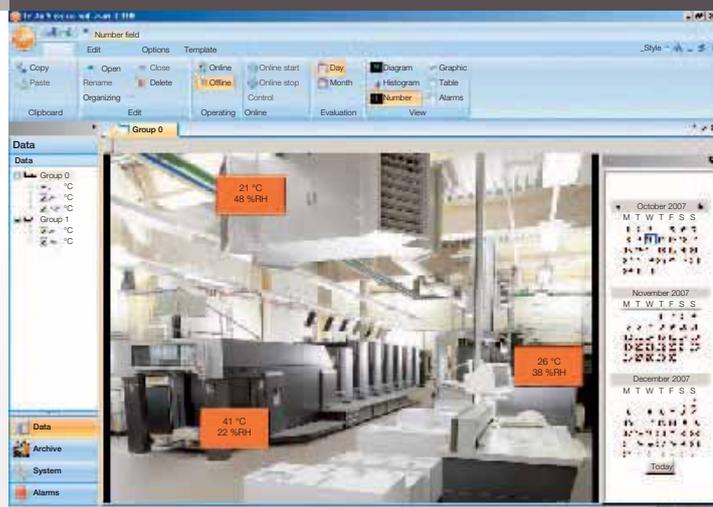
## Small Business Edition (SBE), Professional (PROF) and CFR version

### Now more flexible with Professional software

Die PROF (Professional) software version has interesting additional functions over and above the attractive basic functions of the SBE Basic version, e.g.:

- Client server concept: Measurement data can be monitored by different PCs integrated into the network.
- Photographs of machines or rooms can be saved as a picture. 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 (s. picture).
- 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 the time, you can freely choose whether an alarm is sent via e-mail or SMS.

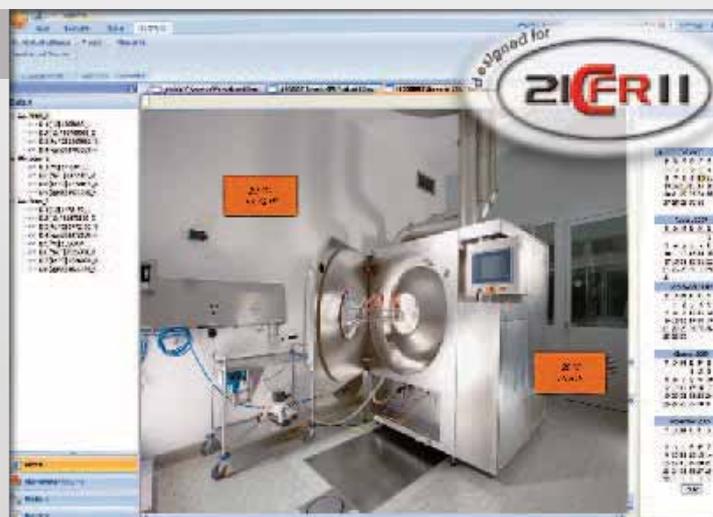
4



### Validation-capable CFR software

CFR software fulfills 21 CFR Part 11 requirements of the FDA and is therefore capable of validation.

5



### Overview of software versions

	SBE	PROF	CFR
Simple installation and configuration	•	•	•
Diagrams/tables/alarm overview/PDF reports	•	•	•
Calendar management	•	•	•
Representation of probe groups	•	•	•
Transmission of alarms (e-mail, SMS, relay)	•	•	•
Comprehensive alarm management		•	•
Automatic refresh of measurement data ("Online mode")		•	•
Measurement data on background photo of locations		•	•
Integration into network (client server)		•	•
Conform to 21CFR11 (validatable)			•
Electronic signature			•
Audit trail			•
Allocation of access rights on 3 user levels			•

#### Ordering data

**SBE software, incl. USB connecting cable base-PC**

Part no.  
0572 0180

**PROF software, incl. USB connecting cable base-PC**

Part no.  
0572 0181

**CFR software, incl. Ethernet connection cable PC to Base**

Part no.  
0572 0182

# 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 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

<b>Memory</b>	40,000 values per channel (total max. 10,160,000 values)
<b>Dimensions</b>	225 x 150 x 49 mm
<b>Weight</b>	Approx. 1510 g
<b>Protection class</b>	IP42
<b>Material/Housing</b>	Diecast zinc / plastic
<b>Radio frequency</b>	868 MHz / 2.4 GHz
<b>Power supply (absolutely necessary)</b>	6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals, power consumption < 4 W
<b>Rech. batt.</b>	Li-ion battery (for data back-up and for emergency SMS if power supply fails)
<b>Oper. temp.</b>	-10 to +50 °C
<b>Storage temp.</b>	-40 to +60 °C
<b>Display</b>	graphical display, 4 control keys
<b>Interfaces</b>	USB, radio, Ethernet
<b>Connectable radio probe</b>	max. 15 probes can be directly connected via radio interface, max. 150 total via radio / router / converter / Ethernet, max. 254 channels
<b>Alarm relay</b>	max. 1 A, max. 30 W, max. 60/25 V DC/AC, NC or NO contact
<b>GSM module</b>	850 / 900 / 1800 / 1900 MHz not valid for Japan and South Korea
<b>Set up</b>	Table base and wall bracket included

## Ordering data

868 MHz	<b>Saveris base, radio frequency 868 MHz</b>	<b>Saveris base, radio frequency 868 MHz, GSM module integrated (for SMS alarm)</b>
	Part no. 0572 0120	Part no. 0572 0121
2.4 GHz	<b>Saveris base, radio frequency 2.4 GHz</b>	<b>Saveris base, radio frequency 2.4 GHz, GSM module integrated (for SMS alarm)</b>
	Part no. 0572 0160	Part no. 0572 0161

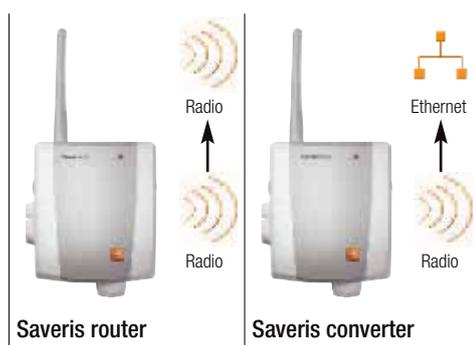
No mains units or aerials with magnetic base are contained in this ordering data.

## Note on the radio frequencies

868 MHz: EU countries and certain other countries (e.g. CH, NOR)  
2.4 GHz: non-EU countries (country list can be called up under [www.testo.com/saveris](http://www.testo.com/saveris))

## testo Saveris™ Components: Router, converter and accessories

The radio link can be improved or lengthened with poor structural conditions by using a router. Naturally several routers are possible in the testo Saveris system, but several routers are not connected in series. 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.



	Saveris router	Saveris converter	
<b>Dimensions</b>	Approx. 85 x 100 x 38 mm	Approx. 85 x 100 x 35 mm	
<b>Weight</b>	Approx. 180 g	Approx. 190 g	
<b>Power supply</b>	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	
<b>Oper. temp.</b>	-20 to +50 °C	-20 to +50 °C	
<b>Storage temp.</b>	-40 to +60 °C	-40 to +60 °C	
<b>Material/Housing</b>	Plastic	Plastic	
<b>Protection class</b>	IP54	IP54	
<b>Interfaces</b>	Radio	Radio, Ethernet	
<b>Connectable radio probe</b>	max. 5	max. 15	
<b>Wall bracket</b>	included	included	
<b>Versions</b>	<b>868 MHz</b>	<b>Saveris router, 868 MHz, radio transmission medium</b>	<b>Saveris converter, 868 MHz, converts the radio transmission medium to Ethernet</b>
		Part no. 0572 0119	Part no. 0572 0118
	<b>2.4 GHz</b>	<b>Saveris router, 2.4 GHz, radio transmission medium</b>	<b>Saveris converter, 2.4 GHz, converts the radio transmission medium to Ethernet</b>
		Part no. 0572 0159	Part no. 0572 0158

No mains units are contained in this ordering data.

Accessories	Part no.
<b>Power supply</b>	
Battery for radio probe (4 AA alkali manganese mignon batteries)	0515 0414
Battery for radio probe for use below -10 °C (4 Energizer L91 Photo lithium)	0515 0572
100-240 V AC / 6.3 V DC international mains unit; for mains operation or battery charging in instrument	0554 1096
Mains unit (top-hat rail mounting) 90 to 264 VAC/24 VDC (2.5 A)	0554 1749
Mains unit (desk-top) 110 to 240 VAC/24 VDC (350mA)	0554 1748
<b>Other features</b>	
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
Progammig adapter (from mini-DIN to USB) for Ethernet probe and converter (necessary if no DHCP server available)	0440 6723
<b>Software</b>	
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 PC to Base	0572 0182
Saveris adjustment software incl. connection cable for wireless and Ethernet probes	0572 0183
<b>Calibration Certificates</b>	
ISO calibration certificate/temperature; Temperature probes; calibration points -8 °C; 0 °C; +40 °C per channel/instrument (suitable for 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 Saveris T1/T2)	0520 0151
DKD calibration certificate/temperature; Temperature probes; calibration points -20 °C; 0 °C; +60 °C; per channel/instrument (not suitable for 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
DKD calibration cert./humidity; Humidity probe, calibration points 11.3 %RH and 75.3 %RH at +25 °C; per channel/instrument	0520 0246

### Note on the radio frequencies



868 MHz: EU countries and certain other countries (e.g. CH, NOR)  
2.4 GHz: non-EU countries (country list can be called up under [www.testo.com/saveris](http://www.testo.com/saveris))



Magnetic foot aerial (dualband)



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

# 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	Pt 100 external
						
		<b>Saveris T1</b> Radio probe with internal NTC	<b>Saveris T2</b> Radio probe with external probe connection and internal NTC, door contact	<b>Saveris T3</b> 2-channel radio probe with 2 external TC probe connections (Choice of TC characteristics)	<b>Saveris Pt</b> Radio probe with 1 external Pt100 probe connection	
Internal sensor	Probe type	NTC	NTC			
	Meas. range	-35 to +50 °C	-35 to +50 °C			
External probe	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			
	Probe type		NTC	TC type K	TC type J	Pt100
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
Conn.			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 / 2.4 GHz				
Measuring rate		Standard 15 min, 1 min to 24 h can be set				
Conformity with standards		DIN EN 12830				
Oper. temp.		-35 to +50 °C		-20 to +50 °C		
Storage temp.		-40 to +55 °C				
Display (optional)		LCD, 2 lines; 7-segment with symbols				
Transmission distance		approx. 300 m free field at a frequency of 868 MHz, approx. 100 m free field at a frequency of 2.4 GHz				
Wall bracket		included				

Versions	Saveris T1	Saveris T2	Saveris T3	Saveris Pt
868 MHz	Version without display <b>Saveris T1</b> Part no. 0572 1110	<b>Saveris T2</b> Part no. 0572 1111	<b>Saveris T3</b> Part no. 0572 9112	<b>Saveris Pt</b> Part no. 0572 7111
	Version with display <b>Saveris T1 D</b> Part no. 0572 1120	<b>Saveris T2 D</b> Part no. 0572 1121	<b>Saveris T3 D</b> Part no. 0572 9122	<b>Saveris Pt D</b> Part no. 0572 7121
2.4 GHz	Version without display <b>Saveris T1</b> Part no. 0572 1150	<b>Saveris T2</b> Part no. 0572 1151	<b>Saveris T3</b> Part no. 0572 9152	<b>Saveris Pt</b> Part no. 0572 7151
	Version with display <b>Saveris T1 D</b> Part no. 0572 1160	<b>Saveris T2 D</b> Part no. 0572 1161	<b>Saveris T3 D</b> Part no. 0572 9162	<b>Saveris Pt D</b> Part no. 0572 7161

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

# testo Saveris™ Components: Radio probes



## Radio

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

Internal sensor	Probe type	NTC		Humidity sensor		1 channel: current/voltage input
	Meas. range	-20 to +50 °C		0 to 100 %RH		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		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	NTC	Humidity sensor		NTC	Humidity sensor
	Meas. range (Instrument)	-20 to +50 °C	0 to +100 %RH*		-20 to +70 °C	0 to +100 %RH*
	Accuracy (Instrument)	±0.5 °C	to 90 %RH: ±2 %RH > 90 %RH: ±3 %RH		±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
Conn.	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	
Weight	Approx. 256 g		Approx. 245 g		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)					Supply: Mains unit 6.3 V DC, 2 to 30 V DC max. 25 V AC
Material/Housing	Plastic					
Protection class	IP54		IP42		IP54	
Radio frequency	868 MHz / 2.4 GHz					
Measuring rate	Standard 15 min, 1 min to 24 h can be set					
Oper. temp.	-20 to +50 °C					
Storage temp.	-40 to +55 °C					
Display (optional)	LCD, 2 lines; 7-segment with symbols					(no display)
Transmission distance	approx. 300 m free field at a frequency of 868 MHz, approx. 100 m free field at a frequency of 2.4 GHz					
Wall bracket	included					

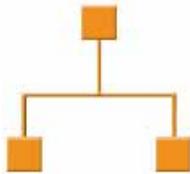
Versions				
868 MHz	Version without display		<b>Saveris H3</b> Part no. 0572 6110	<b>Saveris U1</b> Part no. 0572 3110
	Version with display	<b>Saveris H2D</b> Part no. 0572 6122	<b>Saveris H3 D</b> Part no. 0572 6120	<b>Saveris H4D</b> Part no. 0572 6124
2.4 GHz	Version without display		<b>Saveris H3</b> Part no. 0572 6150	<b>Saveris U1</b> Part no. 0572 3150
	Version with display	<b>Saveris H2D</b> Part no. 0572 6162	<b>Saveris H3 D</b> Part no. 0572 6160	<b>Saveris H4D</b> Part no. 0572 6164

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

\*not for continuous high-humidity applications

# 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		
		NTC external	TC external	Pt 100 external
		<b>Saveris T1E</b>	<b>Saveris T4 E</b>	<b>Saveris Pt E</b>
		Ethernet probe with 1 external probe connection NTC	4-channel Ethernet probe with 4 external TC probe connections	Ethernet probe with external Pt100 probe connection
External probe	Probe type	NTC	TC type K	Pt100
	Meas. range (Instrument)	-50 to +150 °C	-195 to +1350 °C	-200 to +600 °C
	Accuracy (Instrument)	±0.2 °C (-25 to +70 °C) ±0.4 °C (remaining range)	TC type J -100 to +750 °C TC type T -200 to +400 °C TC type S 0 to +1760 °C	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
Conn.	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			
Material/Housing	Plastic			
Protection class	IP54			
Measuring rate	2 s to 24 h			
Oper. temp.	-20 to +60 °C			
Storage temp.	-40 to +60 °C			
Power consumption	PoE Class 0 (typical ≤ 3 W)			
Display (optional)	LCD, 2 lines; 7-segment with symbols			
Wall bracket	included			
		<b>Saveris T1E With display</b>	<b>Saveris T4 E With display</b>	<b>Saveris Pt E With display</b>
		Part no. 0572 1191	Part no. 0572 9194	Part no. 0572 7191

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.

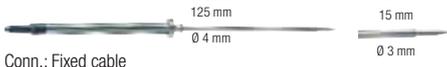
# testo Saveris™ Components: Ethernet probes

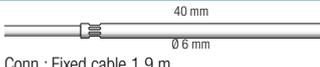
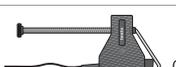
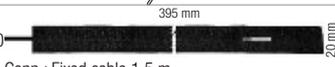
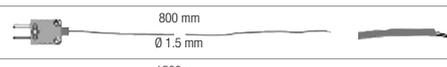
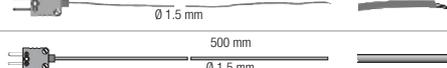
		°C / °F and %RH				mA and V			
		%RH	NTC	%RH	NTC	mA	V		
		external		external		internal			
<p><b>Ethernet</b></p>		<p><b>Saveris H1E</b> Humidity Ethernet probe 1%</p>		<p><b>Saveris H2 E</b> Humidity Ethernet probe 2 %</p>		<p><b>Saveris H4E</b> Ethernet probe with external humidity probe connection</p>		<p><b>Saveris U1E</b> Ethernet probe with current/voltage</p>	
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	
	Resolution								
External probe	Probe type	NTC		Humidity sensor		NTC		Humidity sensor	
	Meas. range (Instrument)	-20 to +70 °C		0 to 100 %RH*		-20 to +70 °C		0 to 100 %RH*	
	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) at +25 °C		±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) at +25 °C	
	Resolution (Instrument)	0.1 °C		0.1% / 0.1 °C td		0.1 °C		0.1% / 0.1 °C td	
Conn.						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			
Power						6.3 V DC mains unit; alternatively via 24 V AC/DC plug-in/screw terminals			
Buffer battery						Li-ion			
Material/Housing						Plastic			
Protection class						IP54			
Measuring rate						2 s to 24 h			
Oper. temp.						-20 to +60 °C			
Storage temp.						-40 to +60 °C			
Power consumption						PoE Class 0 (typical ≤ 3 W)			
Display (optional)						LCD, 2 lines; 7-segment with symbols			
Wall bracket						included			
		<b>Saveris H1 E</b> With display Part no. 0572 6191		<b>Saveris H2 E</b> With display Part no. 0572 6192		<b>Saveris H4E</b> With display Part no. 0572 6194		<b>Saveris U1E</b> no display Part no. 0572 3190	

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. \*not for continuous high-humidity applications

Sintered caps for Saveris H1 E, H2 E and H2 D Ethernet probes	Illustration	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, probe protection in dusty atmospheres or higher flow velocities, for measurements at higher flow velocities or in contaminated air		0554 0647
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 control and humidity adjustment of humidity probes, 11.3 %RH and 75.3 %RH with adapter for humidity probe, quick checks or calibration of humidity probe		0554 0660

# testo Saveris™ Accessories: External temperature probes

Pt 100	Plug-in probes	Illustration	Meas. range	Accuracy	t99	Part no.
◆	Robust, Pt100 stainless steel food probe (IP65)	 <p>125 mm Ø 4 mm 15 mm Ø 3 mm</p> <p>Conn.: Fixed cable</p>	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range)	10 s	0609 2272
◆	Robust, waterproof Pt100 immersion/penetration probe	 <p>114 mm Ø 5 mm 50 mm Ø 3.7 mm</p> <p>Fixed cable</p>	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range)	12 s	0609 1273
Connection cable for unlimited Pt100 stationary probes with screw terminals (4-wire technology)						0554 0213

TC	Plug-in probes	Illustration	Meas. range	Accuracy	t99	Part no.
◆	Stationary probe with stainless steel sleeve, TC Type K	 <p>40 mm Ø 6 mm</p> <p>Conn.: Fixed cable 1.9 m</p>	-50 to +205 °C	Class 2*	20 s	0628 7533
◆	Robust air probe, T/C Type K	 <p>115 mm Ø 4 mm</p> <p>Conn.: Fixed cable 1.2 m</p>	-60 to +400 °C	Class 2*	25 s	0602 1793
	Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K	 <p>35 mm Ø 20 mm</p> <p>Fixed cable</p>	-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	 <p>75 mm Ø 21 mm</p> <p>Conn.: Fixed cable 1.6 m</p>	-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 to +280°C, TC Type K	 <p>Conn.: Fixed cable 1.2 m</p>	-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	 <p>395 mm 20 mm</p> <p>Conn.: Fixed cable 1.5 m</p>	-50 to +120 °C	Class 1*	90 s	0628 0020
	Thermocouple with TC adapter, flexible, 800mm long, fibre glass, TC Type K	 <p>800 mm Ø 1.5 mm</p>	-50 to +400 °C	Class 2*	5 s	0602 0644
	Thermocouple with TC adapter, flexible, 1500mm long, fibre glass, TC Type K	 <p>1500 mm Ø 1.5 mm</p>	-50 to +400 °C	Class 2*	5 s	0602 0645
	Thermocouple with TC adapter, flexible, 1500mm long, PTFE, TC Type K	 <p>1500 mm Ø 1.5 mm</p>	-50 to +250 °C	Class 2*	5 s	0602 0646
	Immersion tip, flexible, TC Type K	 <p>500 mm Ø 1.5 mm</p>	-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	 <p>Ø 3 mm 1000 mm</p>	-200 to +1300 °C	Class 1*	4 s	0602 5693

◆ The specified accuracy class of the 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).



You can find all temperature probes tailored to your application at [www.testo-celsius.de](http://www.testo-celsius.de) or in the "Stationary measurement solutions" catalogue.

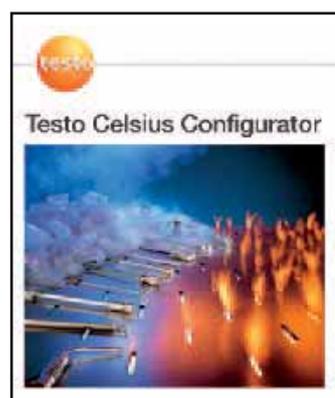
## testo Saveris™ Accessories: External temperature probes

NTC		Plug-in probes	Illustration	Meas. range	Probe accuracy	t <sub>99</sub>	Part no.
◆	Stub probe, IP 54			-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, IP 65			-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, IP 67			-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, 1.5 m long, IP 67			-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	5 s	0628 0006*
	Wall surface temperature probe, e.g. to prove damage in building material			-50 to +80 °C	±0.2 °C (0 to +70 °C)	20 s	0628 7507
◆	Stainless steel NTC food probe (IP65) with PUR cable			-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*
◆	Waterproof NTC immersion/penetration probe			-50 to +150 °C	±0.5% of mv (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	10 s	0613 1212
	Pipe wrap probe with Velcro for pipe diameter to max. 75 mm, Tmax. +75°C, NTC			-50 to +70 °C	±0.2 °C (-25 to +70 °C) ±0.4 °C (-50 to -25.1 °C)		0613 4611

%RH		Plug-in probes	Illustration	Meas. range	Accuracy	Part no.
◆	Humidity / Temperature Probe 12mm			-20 to +70 °C, 0 to +100 %RH	±0,3 °C, ±2 %RH (2 to 98 %RH)	0572 6172
◆	Humidity / Temperature Probe 4 mm			0 to +40 °C, 0 to +100 %RH	±0,3 °C, ±2 %RH (2 to 98 %RH)	0572 6174

◆ The specified accuracy class of the 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)



You can find all temperature probes tailored to your application at [www.testo-celsius.de](http://www.testo-celsius.de) or in the "Stationary measurement solutions" catalogue.

## testo Saveris™ Sets

You can assemble all individual components yourself, of course, but you also have the option of ordering a testo Saveris set. This can be supplemented with individual components as required.

### Saveris set 1



Set 1: 868 MHz, consisting of base 0572 0120, 3 NTC radio probes without display 0572 1110, mains unit for base 0554 1096 and SBE software 0572 0180 incl. USB cable

**Set 1, 868 MHz**

Part no. 0572 0110

### Saveris set 2



Set 2: 868 MHz, consisting of base 0572 0120, 5 NTC radio probes with display 0572 1120, router 0572 0119, 2 mains units for base and router 0554 1096 and SBE software 0572 0180 incl. USB cable

**Set 2, 868 MHz**

Part no. 0572 0111

### Saveris set 3



Set 3: 868 MHz, consisting of base 0572 0121 incl. GSM module for SMS alarm, aerial with magnetic base 0554 0525, 5 NTC radio probes with display 0572 1120, router 0572 0119, 2 mains units for base and router 0554 1096 and SBE software 0572 0180 incl. USB cable

**Set 3, 868 MHz**

Part no. 0572 0112

Set 1: 2.4 GHz, consisting of base 0572 0160, 3 NTC radio probes without display 0572 1150, mains unit for base 0554 1096 and SBE software 0572 0180 incl. USB cable

**Set 1, 2.4 GHz**

Part no. 0572 0150

Set 2: 2.4 GHz, consisting of base 0572 0160, 5 NTC radio probes with display 0572 1160, router 0572 0159, 2 mains units for base and router 0554 1096 and SBE software 0572 0180 incl. USB cable

**Set 2, 2.4 GHz**

Part no. 0572 0151

Set 3: 2.4 GHz, consisting of base 0572 0161 incl. GSM module for SMS alarm, aerial with magnetic base 0554 0525, 5 NTC radio probes with display 0572 1160, router 0572 0159, 2 mains units for base and router 0554 1096 and SBE software 0572 0180 incl. USB cable

**Set 3, 2.4 GHz**

Part no. 0572 0152

## Adjustment and service

### 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 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 Saveris software accept this data so that the adjustment histories are available.

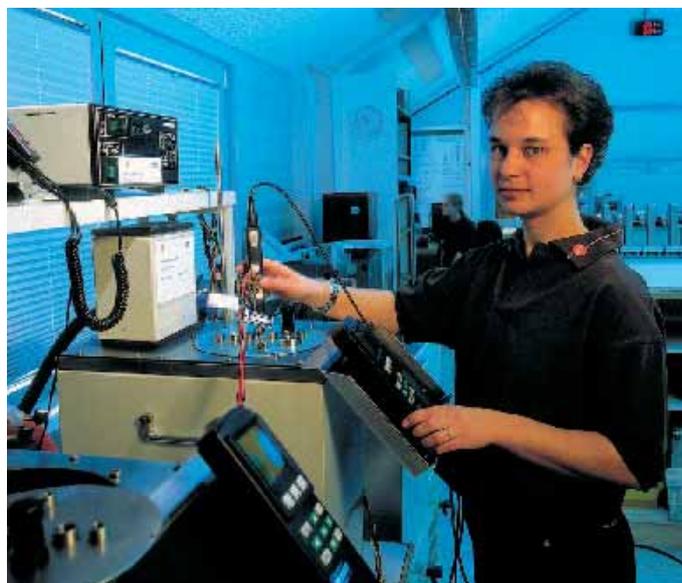
Radio and Ethernet probes are connected to a cable via the service interface for adjustment.

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

#### Ordering data

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

Part no.  
0572 0183



### Service

testo is a manufacturer of measuring instruments and measuring systems with a global presence, with 27 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).

