

# WiFi data logger system

testo Saveris 2 –  
temperature, humidity and  
CO<sub>2</sub> monitoring re-thought

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Data transfer by wireless LAN

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All measurement data always available, anywhere,  
on any instrument

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Alarms when limit values are violated

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Cost-free online data store (Testo Cloud)

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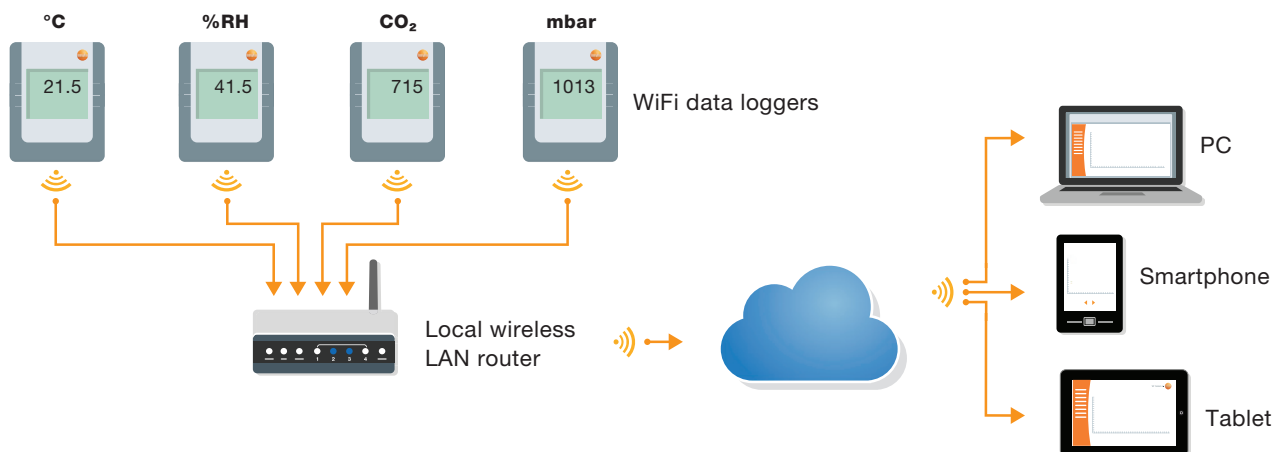


The testo Saveris 2 WiFi data logger system is the modern solution for monitoring temperature and humidity values as well as CO<sub>2</sub> concentration in storerooms and work rooms. Installing the system is child's play and can be carried out via the browser. The WiFi data loggers reliably record temperature, humidity and CO<sub>2</sub> concentration at adjustable intervals and transmit the measurement values directly by wireless LAN to the Testo Cloud.

The readings stored can be analyzed at any time, anywhere, using an internet-enabled smartphone, tablet or PC. Limit value violations are immediately reported via e-mail, or optionally via SMS. This allows critical processes to be kept always under control, even if you are not on site. The long battery life additionally ensures that the testo Saveris 2 system needs to be serviced only rarely.

# Climate monitoring re-thought

The data logger system testo Saveris 2 allows you full and easy control of ambient conditions at all times - no matter where you are.



## testo Saveris 2 Cloud

### Our packages

The Testo Cloud is the core operating element for setting up your testo Saveris 2 system. Here you can configure your WiFi data loggers, set limit value alarms and analyze your measurement data. You must first register at [www.saveris.net](http://www.saveris.net) to have access to the Testo Cloud. Depending on the desired range of functions, you have a choice between the free Basic and more extensive Advanced functionality for use of the Testo Cloud. In the Advanced licence, you have access to an API interface, in order to export measurement data to your systems.

	Basic <b>Free</b>	Advanced			
<b>Measuring cycle</b>	15 min to 24 h	1 min to 24 h			
<b>Communication cycle</b>	15 min to 24 h	1 min to 24 h			
<b>Data storage</b>	Max. 3 months	Max. 2 years			
<b>Reports</b>	Manual (.pdf/.csv)	Manual (.pdf/.csv) Automatic (.pdf/.csv)			
<b>Data analysis</b>	For one measurement site each (external probes count as measurement sites)	For up to 10 measurement channels simultaneously			
<b>Number of users per account</b>	1	10			
<b>Number of WiFi data loggers per account</b>	Unlimited	Unlimited			
<b>Alarm options</b>	Upper/lower alarm limits	<ul style="list-style-type: none"> <li>• Upper/lower alarm limits</li> <li>• Alarm delay</li> <li>• Time control of alarms</li> </ul>			
<b>System notifications</b>	<ul style="list-style-type: none"> <li>• Notification of low battery</li> <li>• Radio link interrupted</li> <li>• Power supply interrupted</li> </ul>	<ul style="list-style-type: none"> <li>• Notification of low battery</li> <li>• Radio link interrupted</li> <li>• Power supply interrupted</li> </ul>			
<b>E-mail alarm</b>	Yes	Yes			
<b>SMS alarm</b>	No	<ul style="list-style-type: none"> <li>• Including 25 SMS per logger and year</li> <li>• Option of purchasing additional SMS packages</li> </ul>			
		<table border="0"> <tr> <td>12-month licence Order no. 0526 0735</td> <td>24-month licence Order no. 0526 0732</td> <td>36-month licence Order no. 0526 0733</td> </tr> </table>	12-month licence Order no. 0526 0735	24-month licence Order no. 0526 0732	36-month licence Order no. 0526 0733
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## Ordering data WiFi data loggers

### testo Saveris 2-T1

testo Saveris 2-T1; WiFi data logger (wireless LAN) with display and internal NTC temperature sensor, incl. USB cable, wall bracket, batteries and calibration protocol



Order no. 0572 2031

### testo Saveris 2-H1

testo Saveris 2-H1; WiFi data logger (wireless LAN) with display for measuring temperature and relative humidity, internal capacitive sensor incl. USB cable, wall bracket, batteries and calibration protocol



Order no. 0572 2034

### testo Saveris 2-T2

testo Saveris 2-T2; WiFi data logger (wireless LAN) with display for measuring temperature, two connections for external NTC temperature probes or door contacts, incl. USB cable, wall bracket, batteries and calibration protocol



Order no. 0572 2032

### testo Saveris 2-H2

testo Saveris 2-H2; WiFi data logger (wireless LAN) with display for measuring temperature and relative humidity, connection for one external humidity probe, incl. USB cable, wall bracket, batteries



Order no. 0572 2035

### testo Saveris 2-T3

testo Saveris 2-T3; WiFi data logger (wireless LAN) with display for measuring temperature, two connections for external TC temperature probes (Types K, T, J), incl. USB cable, wall bracket, batteries and calibration protocol



Order no. 0572 2033

### testo 160 IAQ

testo 160 IAQ WiFi air quality logger with display and integrated sensors for temperature, humidity, CO<sub>2</sub> and atmospheric pressure incl. mains unit



Order no. 0572 2014

### testo Saveris 2 - set for temperature monitoring in refrigerators

testo Saveris 2-T2; WiFi data logger (wireless LAN) with display for measuring the temperature, two connections for external NTC temperature probes or door contacts, incl. two ribbon-cable temperature probes, two temperature simulation flasks for filling with a temperature buffer suitable for each respective area of application, USB cable, wall bracket, batteries and calibration protocol



Order no. 0572 2103

Please note that in order to use the WiFi data logger system testo Saveris 2, a WiFi data logger, registration in the Testo Cloud ([www.saveris.net](http://www.saveris.net)) and a wireless LAN-capable network are absolutely necessary.



# Technical data

	testo Saveris 2-T1	testo Saveris 2-T2	testo Saveris 2-T3			testo Saveris 2-H1	testo Saveris 2-H2	testo 160 IAQ
<b>Temperature measurement</b>								
Sensor type	NTC internal	NTC	TC Type K	TC Type J	TC type T	NTC internal	NTC	
Measuring range	-30 to +50 °C	-50 to +150 °C	-195 to +1350 °C	-100 to +750 °C	-200 to +400 °C	-30 to +50 °C	Measuring range and accuracy correspond to probe	0 to +50 °C
Accuracy ±1 digit	±0.5 °C	±0.3 °C	±(0.5 + 0.5 % of m.v.) °C			±0.5 °C		±0.5 °C
Resolution	0.1 °C							
<b>Humidity measurement</b>								
Measuring range	-					0 to 100 %RH	Measuring range and accuracy correspond to probe	0 to 100 %RH
Accuracy	-					±2 %RH		±2 %RH at +25 °C and 20 to 80 %RH ±3 %RH at +25 °C and <20 %RH and >80 %RH ±1% RH hysteresis ±1% RH / year drift
Resolution	-					0.1 %RH		
<b>CO<sub>2</sub> measurement</b>								
Measuring range	-							0 to 5000 ppm
Accuracy	-							±(50 ppm + 3 % of m.v.) at +25 °C Without external power supply: ±(100 ppm + 3 % of m.v.) at +25 °C
Resolution	-							1 ppm
<b>Pressure measurement</b>								
Measuring range	-							600 to 1100 mbar
Accuracy	-							±3 mbar at +22 °C
Resolution	-							1 mbar
<b>Temperature/humidity measurement via external probes</b>								
External probe connection	-	External temperature probes	External temperature probes			-	External humidity/temperature probe	-
<b>General technical data</b>								
Operating temperature	-30 to +50 °C							0 to +50 °C
Storage temperature (without batteries)	-40 to +70 °C							-20 to +50 °C
Protection class	IP65	IP65	IP54			IP30	IP54	IP20
Measuring cycle	Depends on the Cloud licence / Basic: 15 min to 24 h / Advanced: 1 min to 24 h testo 160 IAQ – Advanced in battery operation: 5 mins to 24 h							
Communication cycle	Depends on the Cloud licence / Basic: 15 min to 24 h / Advanced: 1 min to 24 h							
Memory	10000 readings/channel							32,000 readings (sum of all channels)
Standards / permits	EN 12830	EN 12830	-					
Battery life	12 months (typical value, depending on the wireless LAN infrastructure) at +25 °C, 15 mins measurement rate and standard communication rate at -30 °C, 15 mins measurement rate and standard communication rate with Energizer batteries 0515 0572							12 months
Voltage supply	4 x AA AlMn Mignon batteries; mains unit optional; for temperatures under -10 °C please use Energizer batteries 0515 0572							4 x AA alkali manganese batteries 1.5 V, alternatively mains unit via USB connection
Dimensions	95 x 75 x 30.5 mm					115 x 82 x 31 mm	95 x 75 x 30.5 mm	117 x 82 x 32 mm
Weight (including batteries)	240 g					250 g	240 g	269 g
Door contact	No	Optional	No					
<b>Communication</b>								
WiFi (wireless LAN)	Signal transmission: wireless; frequency band: 2.4 GHz; supported wireless LAN standards: IEEE 802.11 b/g/n and IEEE 802.1X Possible encryption methods: without encryption, WEP, WPA, WPA2, WPA2 Enterprise The data loggers communicate via the standard protocol MQTT and are SNTP time synchronization-capable.							

## Ordering data for accessories



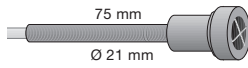
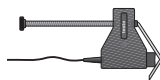
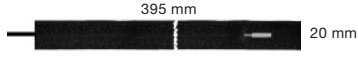

Accessories	Order no.	
Door contact – connection cable for radio data logger testo Saveris 2-T2, length: 2 m	0572 2152	
Mains unit for testo Saveris 2 WiFi data loggers	0572 2020	
Battery for WiFi probes (4 x AA alkali manganese Mignon batteries))	0515 0414	
Batteries for operating WiFi data loggers testo Saveris 2 below -10 °C (4 x Energizer L91 Photo-Lithium)	0515 0572	
Magnetic adapter for testo Saveris 2 wall bracket, for attachment to magnetic surfaces	0554 2001	
Wall bracket for testo 160 IAQ	0554 2015	
Deco-cover for testo 160 IAQ	0554 2012	
ISO temperature calibration certificate, temperature probe; calibration points -18 °C, 0 °C, +40 °C; per channel/instrument	0520 0153	
DAkkS temperature calibration certificate; temperature probe; calibration points -18 °C, 0 °C, +40 °C; per channel/instrument	0520 0262	
ISO humidity calibration certificate; calibration points 11.3 %RH and 75.3 %RH at +25 °C/ +77 °F; per channel/instrument	0520 0076	
DAkks humidity calibration certificate; humidity probe; calibration points 11.3 %RH and 75.3 %RH at +25°C; per channel/instrument	0520 0246	
ISO calibration certificate CO <sub>2</sub> , calibration points 0; 1000; 5000 ppm	0520 0033	

## Temperature probes for testo Saveris 2-T2

Probe type	Dimensions probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Order no.
Stump probe, IP 54	 35 mm Ø 3 mm	-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, fixed cable 2.4 m	 40 mm Ø 6 mm	-30 to +90 °C	±0.2 °C (0 to +70 °C) ±0.5 °C (remaining meas. range)	190 s	0628 7503
Accurate immersion/penetration probe, cable length 6 m, IP 67, fixed cable	 40 mm Ø 3 mm    Ø 3 mm	-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining meas. range)	5 s	0610 1725
Surface probe fixed cable, 2 m	 40 mm 8 x 8 mm	-50 to +80 °C	±0.2 °C (0 to +70 °C)	150 s	0628 7516
Penetration probe NTC with ribbon cable, cable length 2 m, IP 54, fixed cable	 60 mm    30 mm Ø 5 mm    Ø 3.6 mm	-40 to +125 °C	±0.5 % of m.v. +100 to +125 °C) ±0.2 °C (-25 to +80 °C) ±0.4 °C (remaining meas. range)	8 s	0572 1001
Pipe wrap probe with Velcro tape for pipe diameters up to max. 75 mm, Tmax. +75 °C, fixed cable	 300 mm	-50 to +70 °C	±0.2 °C (-25 to +70 °C) ±0.4 °C (-50 to -25.1 °C)	60 s	0613 4611
External temperature probe 12 mm, plug-in, without cable	 105 mm Ø 12 mm Ø 20 mm	-30 to +50 °C	±0.2 °C (-30 to +50 °C)		0572 2153



**More probes at [www.testo.com](http://www.testo.com)!**

## Temperature probes for testo Saveris 2-T3

Probe type	Dimensions probe shaft/probe shaft tip	Measuring range	Accuracy	t <sub>99</sub>	Order no.
Stationary probe with stainless steel sheath, TC Type K	 40 mm Ø 6 mm Connection: Fixed cable 1.9 m	-50 to +205 °C	Class 2*	20 s	0628 7533
Penetration probe TC with ribbon cable, Type K, cable length 2 m, IP 54	 60 mm Ø 5 mm 30 mm Ø 3.6 mm	-40 to +220 °C	Class 1 (-25 to +200 °C) Class 2 (<-25 °C and >+200 °C)	7 s	0572 9001
Magnetic probe, adhesive power approx. 10 N, with magnets, for higher temperatures, for measurements on metal surfaces, TC Type K	 75 mm Ø 21 mm Connection: Fixed cable 1.6 m	-50 to +400 °C	Class 2*		0602 4892
Pipe clamp probe for pipe diameters 5 to 65 mm, with replaceable measuring head, measuring range short-term up to +280 °C, TC Type K	 Connection: Fixed cable 1.2 m	-60 to +130 °C	Class 2*	5 s	0602 4592
Pipe wrap probe with Velcro tape, for measuring temperatures on pipes with diameters up to max. 120 mm, Tmax +120°C, TC Type K	 395 mm 20 mm Connection: Fixed cable 1.5 m	-50 to +120 °C	Class 1*	90 s	0628 0020
Flexible, low-mass immersion measurement tip, ideal for measurements in small volumes such as Petri dishes or for surface measurements (e.g. fixed with adhesive tape), TC Type K, 2 m, FEP-insulated thermal wire, temperature-proof to 200 °C, oval cable with dimensions: 2.2 mm x 1.4 mm	 Ø 0.25 mm 500 mm	-200 to +1000 °C	Class 1*	1 s	0602 0493

\* Acc. to norm 60584-1, 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).

## Humidity/temperature probes for testo Saveris 2-H2

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	Order no.
Humidity/temperature probe 12 mm, fixed cable, cable length 1.3 m		-30 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 2155
External humidity/temperature probe 12 mm, plug-in, without cable	 105 mm Ø 20 mm	-30 to +50 °C 0 to 100 %RH	± 0.5 °C ± 2 %RH Temperature coefficient: ± 0.03 %RH/K (k=1) Long-term stability: ± 1 %RH/year	0572 2154

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