

## Monitoring system

**testo 160 – Monitoring system for the monitoring of temperature, humidity, light intensity, UV radiation and CO<sub>2</sub> concentration.**

---

Measurement value transfer by wireless LAN to the Cloud store

---

Measurement values can be called up on all end devices

---

Alarm notification by SMS or e-mail

---

Inconspicuous design and small dimensions

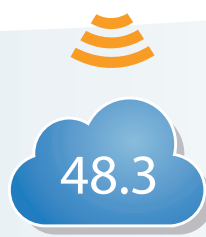
---

Deco-cover for optimum individual adaptation of the loggers to the surroundings

---



- °C
- %RH
- Lux
- mW/m<sup>2</sup>
- ppm
- mbar



**testo Saveris 2 App**  
for free download

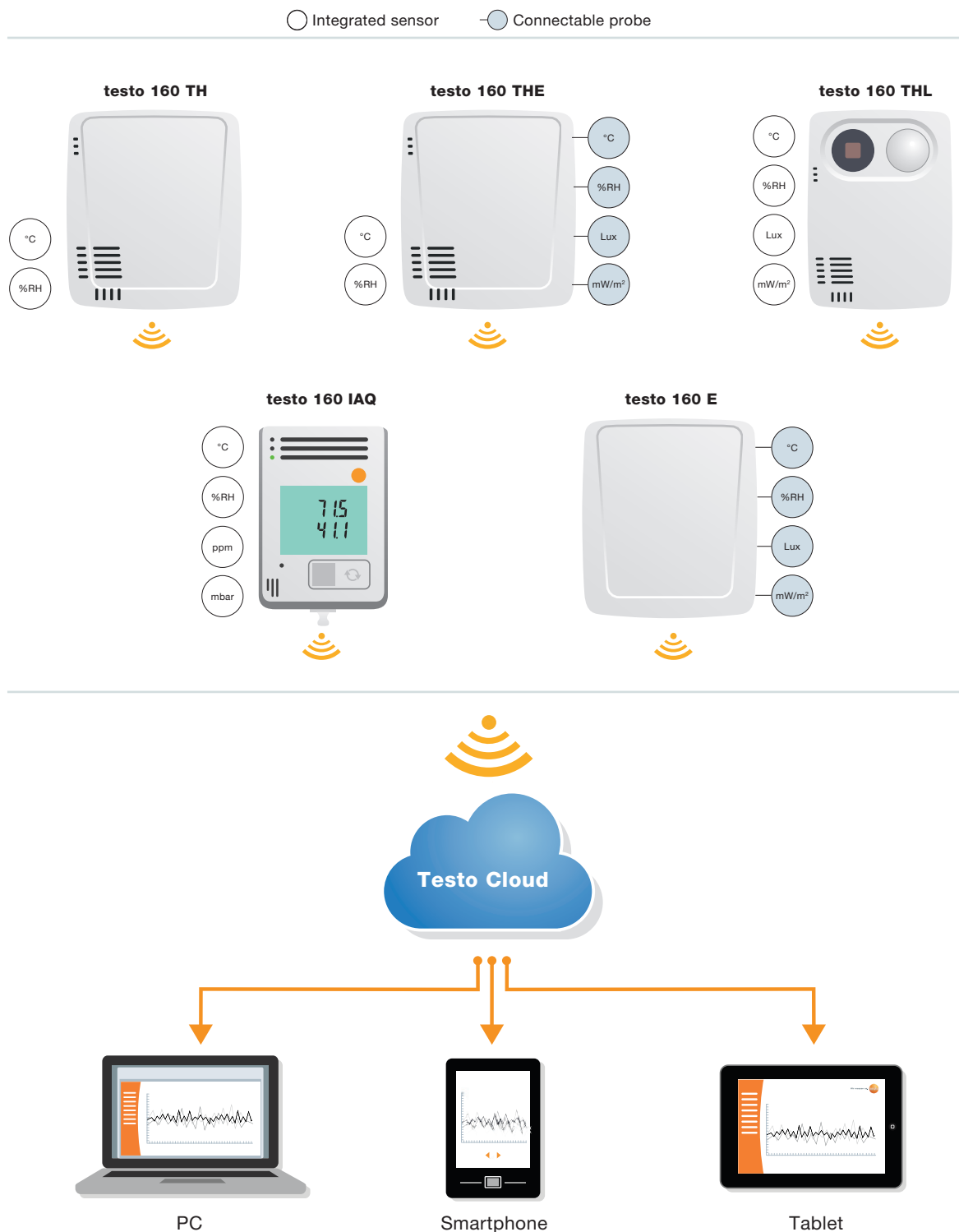
GET IT ON Google Play | Download on the App Store

The monitoring system testo 160 monitors ambient conditions in display cases, exhibition rooms and depots. The loggers transfer measurement values by wireless LAN to the online store (Testo Cloud). You can access all data at any time with the testo Saveris 2 App or by PC/tablet/smartphone and a normal browser. If limit values are exceeded, an alarm is immediately provided by SMS and/or e-mail. For light intensity, an alarm can also be triggered if the accumulated light quantity within a day, a week or a month exceeds a limit value.

Thanks to the optional, individually designable deco-cover, the loggers can be integrated inconspicuously in exhibitions and display cabinets. The temperature and humidity probe with wall bushing is ideal for monitoring small display cabinets in which a data logger cannot be placed. The testo 160 thus enables you to check all relevant ambient conditions, in order to safeguard the value of the exhibits and fulfil the obligation of documentation.

# How indoor climate monitoring with **testo 160** works.

With the monitoring system testo 160 you easily have full control of all relevant ambient conditions - no matter where you are.



# The testo 160 Cloud

## Our packages

The testo 160 Cloud is the central operating element of the testo 160 monitoring system. Here you can configure your WiFi data loggers, set limit value alarms and analyze measurement data. You must first register at [www.museum.saveris.net](http://www.museum.saveris.net) to have access to the testo 160 Cloud.

Depending on the range of functions you require, you have a choice between the free Basic and the more extensive Advanced functionality: In both packages, you have access to an API interface, in order to export measurement data to your systems.

	Basic	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>• More SMS packages purchasable</li> </ul>			
		<table border="1"> <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
12-month licence order no. 0526 0735	24-month licence order no. 0526 0732	36-month licence order no. 0526 0733			

Register now: [www.museum.saveris.net](http://www.museum.saveris.net)

## Ordering data WiFi data loggers

### testo 160 TH

testo 160 TH  
WiFi data logger with  
integrated temperature  
and humidity sensors



Order no. 0572 2021

### testo 160 THE

testo 160 THE  
WiFi data logger with  
integrated temperature  
and humidity sensors  
as well as connection  
possibility for two probes  
(S-TH, S-LuxUV or  
S-Lux)



Order no. 0572 2023

### testo 160 THL

testo 160 THL  
WiFi data logger with  
integrated temperature  
and humidity sensors  
as well as Lux and  
UV sensor



Order no. 0572 2024

### 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 160 E

testo 160 E  
WiFi data logger with  
connection possibility  
for two probes (S-TH,  
S-LuxUV or S-Lux)



Order no. 0572 2022

# Technical data WiFi data loggers

	WiFi data logger testo 160 TH	WiFi data logger testo 160 THE	WiFi data logger testo 160 THL	WiFi air quality logger testo 160 IAQ	WiFi data logger testo 160 E
<b>Temperature measurement</b>					
Measuring range	-10 to +50 °C			0 to +50 °C	see external probe
Accuracy	± 0.5 °C				
Resolution	0.1 °C				
<b>Humidity measurement</b>					
Measuring range	0 to 100 %RH (non-condensing)				see external probe
Accuracy	±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>Lux measurement</b>					
Measuring range			0 to 20,000 lux		see external probe
Accuracy		see external probe	DIN 5032-7 Class C-compliant. ±3 lux or 3 % of m.v. (refers to reference DIN 5032-7 Class L)		
Resolution			0.1 lux		
<b>UV measurement</b>					
Measuring range			0 to 10,000 mW/m <sup>2</sup>		see external probe
Accuracy		see external probe	±5 mW/m <sup>2</sup> or ±5 % of m.v. (refers to external reference)		
Resolution			0.1 mW/m <sup>2</sup>		
<b>CO<sub>2</sub> measurement</b>					
Measuring range				0 to 5,000 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>WLAN</b>					
Standard	802.11 b/g/n				
Security	WPA2 Enterprise: EAP-TLS, EAP-TTLS-TLS, EAP-TTLS-MSCHAPv2, EAP-TTLS-PSK, EAP-PEAP0-TLS, EAP-PEAP0-MSCHAPv2, EAP-PEAP0-PSK, EAP-PEAP1-TLS, EAP-PEAP1-MSCHAPv2, EAP-PEAP1-PSK, WPA Personal, WPA2 (AES), WPA (TKIP), WEP				
<b>General</b>					
Operating temperature	-10 to +50 °C			0 to +50 °C	-10 to +50 °C
Storage temperature	-20 to +50 °C			0 to +50 °C	-20 to +50 °C
Protection class	IP20				
Measuring cycle	Dependent on 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	Dependent on Cloud licence / Basic: 15 min to 24 h / Advanced: 1 min to 24 h				
Memory	32,000 readings (sum of all channels)				
Voltage supply (alternatively mains unit via USB connection)	4 x AAA alkaline manganese batteries 1.5 V			4 x AA alkaline manganese batteries 1.5 V	4 x AAA alkaline manganese batteries 1.5 V
Battery life (depending on the measuring and communication cycle vis-a-vis the Cloud)	1.5 years			1 year	1.5 years
Dimensions	76 x 64 x 22 mm	76 x 64 x 22 mm	92 x 64 x 22 mm	117 x 82 x 32 mm	76 x 64 x 22 mm
Weight (including batteries)	94 g	94 g	113 g	269 g	96 g

## Accessories

	<b>Order no.</b>
Deco-cover for testo 160 TH / testo 160 THE / testo 160 E	0554 2006
Deco-cover for testo 160 THL	0554 2009
Deco-cover for testo 160 IAQ	0554 2012
Wall bracket for testo 160 TH / testo 160 THE / testo 160 E / testo 160 THL	0554 2013
Wall bracket for testo 160 IAQ	0554 2015
Extension cable for probes, length 0.6 m (included with every probe)	0554 2004
Extension cable for probes, length 2.5 m	0554 2005
Display cabinet bushing for temperature and humidity probes (included with every probe)	0554 2016
Alkaline manganese microcell AAA batteries up to -10 °C, order 4 off	0515 0009
Alkaline manganese mignoncell AA batteries up to -10 °C, order 4 off	0515 0414
External USB power supply	0572 2020
ISO calibration certificate temperature -8 °C, 0 °C, +40 °C (for testo 160 TH / testo 160 THE / testo 160 E / testo 160 THL)	0520 0171
ISO calibration certificate temperature +15 °C, +25 °C, +35 °C (für testo 160 IAQ)	0520 0172
ISO calibration certificate humidity at +25 °C, humidity points 11.3 %RH and 75.3 %RH	0520 0076
ISO calibration certificate light intensity, calibration points 0; 500; 1000; 2000; 4000 Lux	0520 0010
ISO calibration certificate CO <sub>2</sub> , calibration points 0; 1000; 5000 ppm	0520 0033

## Probe

<b>Probe type</b>	Temperature and humidity probes	Lux and UV sensors	Lux sensor
			
<b>Measuring range</b>	-10 to +50 °C 0 to 100 %RH	0 to 20,000 lux 0 to 10,000 mW/m <sup>2</sup>	0 to 20,000 lux
<b>Accuracy</b>	± 0.5 °C ±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	DIN 5032-7 Class C-compliant. ±3 lux or ±3 % of reference (DIN 5032-7 Class L) ±5 mW/m <sup>2</sup> or ±5 % of m.v. (refers to external reference)	DIN 5032-7 Class C-compliant. ±3 lux or ±3 % of reference (DIN 5032-7 Class L)
<b>Order no.</b>	0572 2156	0572 2157	0572 2158

# Data management

## The testo Saveris 2 App

With the testo Saveris 2 App for iOS and Android, you now operate the wireless LAN data logger system testo 160 even more easily and flexibly.

### More efficient commissioning\*:

- Easy recognition and selection of the WiFi network
- Faster parallel commissioning of several loggers

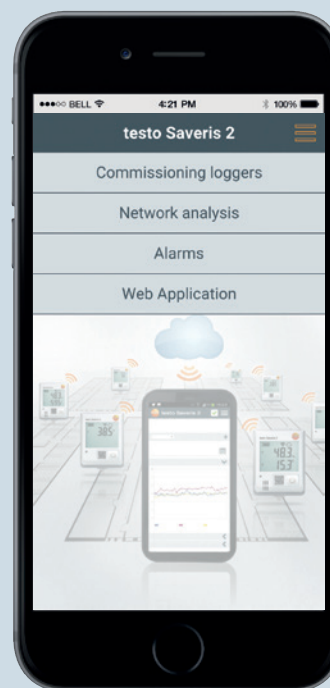
### Easy network analysis\*:

- Test the strength and range of your WiFi network
- Create and send status reports

### Reliable alarm functions:

- Push notifications of limit value violations
- Combinable with e-mail or SMS alarms

\*These functions are available only in the Android version of the testo Saveris 2 App.



## testo Saveris 2 App

for free download



## The testo 160 Cloud

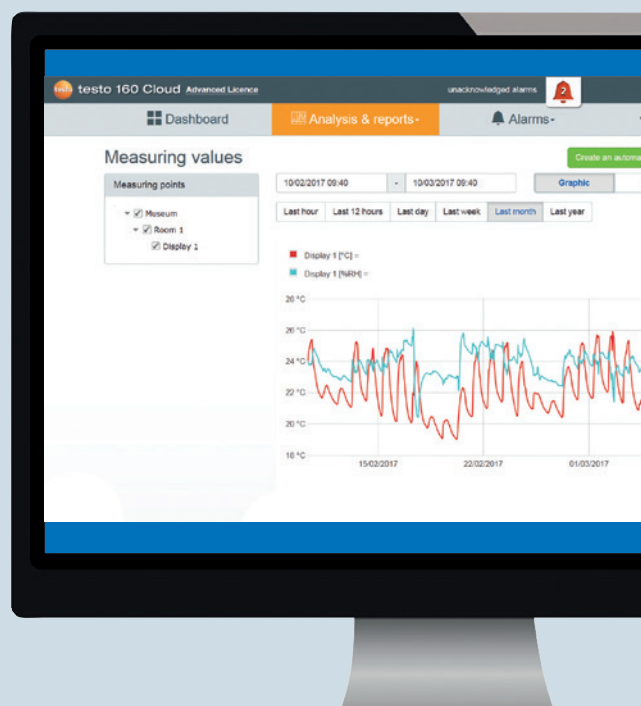
A free access to the testo 160 Cloud is included in delivery. In the Cloud you can view and manage the measurement values stored online, and use the alarm function via e-mail. The system can also be set up and configured here.

### The advantages of the testo 160 Cloud at a glance:

- Central operating element for the monitoring, documentation and administration of all measurement locations
- Secure protection of your measurement data from unauthorized access by third parties
- Automatic storage of your measurement values, all measurement data are constantly available
- Alarm function for critical values
- Two licence packages (Basic, Advanced) with differing extent of functions

### Maximum flexibility with the Advanced licence:

- The measuring and communication cycle is fully adjustable
- Reports automatically sent by e-mail fulfil the documentation obligation
- Several user profiles – important, for example in cases of several sites
- Alarm also by SMS



## Deco-cover

For exhibitions in rooms with coloured walls or backgrounds, the deco-covers of the data loggers can be individually designed by painting or decorating.

This places the logger in the background, and does not distract from the exhibits.



1981 0274/msp/1/09.2018

Subject to change without notice.