



# Monitoring system

testo 160 - Online data logger system for monitoring temperature, humidity, lux and UV radiation

Limit value violation alarms by push notification, e-mail or (optionally) SMS

Connection to the testo Smart App: Simple commissioning, push alarms and dashboard

Automatic measurement value documentation in testo Saveris (Cloud)



The payable Testo Data Monitoring Licence is required to use the system.





The testo 160 online data loggers are part of the testo 160 online data logger system. They record measurement values (temperature and humidity, lux and UV) and send them directly to the testo Saveris Cloud via a WLAN connection.

If limit values are exceeded, the testo Smart App alerts you directly via push notification of limit value violations. Alternatively, you can be notified by email or SMS.

You can access all measurement data and analysis functions anytime and anywhere with your internet-enabled smartphone, tablet, or PC.

A valid license must be purchased to operate the online data loggers in the testo Saveris Cloud (Data Monitoring License).



### How indoor climate monitoring works with the

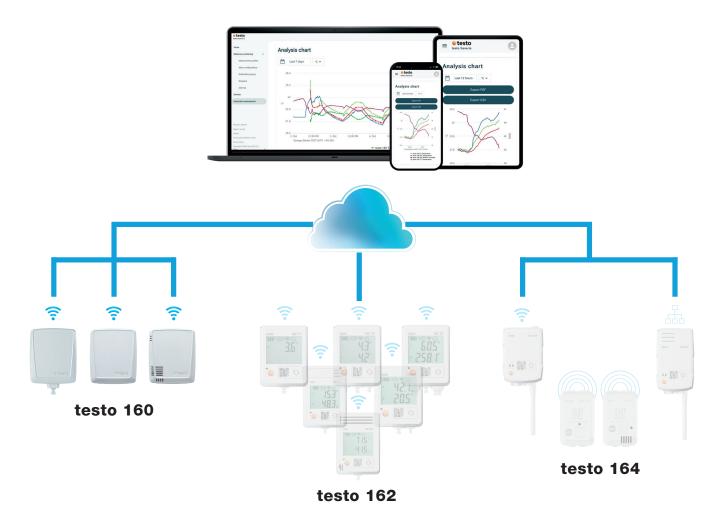
# testo 160 online data logger system

The testo 160 online data logger system consists of the hardware components (testo 160, testo 162, testo 164), testo Saveris Cloud and testo Smart App.

The testo Saveris Cloud is the central data platform.

Measured values can be viewed and analyzed there.

The products testo 160, testo 162 and testo 164 offer you maximum flexibility thanks to their wide range of variants and can be easily combined and expanded in your Testo account.





#### Automated measurement monitoring.

#### Thanks to cloud connection.



With the online data loggers connected to the testo Saveris Cloud, your indoor climate monitoring takes place effortlessly in the background. You don't have to do anything yourself – the process is fully automated. You can access all measurement data in the cloud via smartphone, tablet or PC. All you need is a valid license and to set up the system once: configure the online data loggers and set limit alarms. The rest takes care of itself.

- Central control for monitoring and managing all measuring points
- Automatic transmission and documentation of readings, alarms when limit values are exceeded
- All readings can be accessed anytime and anywhere
- Link to the testo Smart App for further smart benefits

Check out the testo Saveris Cloud now!

Order no. Data Monitoring License: 0526 5161



# Order data for online data loggers









# Technical data for testo 160 online data loggers

	Online data logger testo 160 T	Online data logger testo 160 TH	Online data logger testo 160 E	
Temperature measurement				
Sensor type	NTC internal	NTC internal		
Measuring range	-30 to +50 °C	-10 to +50 °C	see connectable probe	
Accuracy	±0.5 °C	±0.5 °C		
Resolution	0.1 °C	0.1 °C		
Humidity measurement				
Sensor type	-	NTC internal		
Measuring range		0 to 100 %RH (non-condensing)	1	
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 drift per year	see connectable probe	
Resolution	-	0.1 %RH		
Additional measurements				
	-	-	Lux and UV measurement possible via external probe. See probe technical data	
Certificates/Approvals				
	EN12830	_	_	
WLAN				
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			
General information				
Operating temperature	-30 to +50 °C	-10 to +50 °C		
Storage temperature	-30 to +60 °C	-20 to +50 °C		
Protection class	IP65	IP20		
Measuring cycle & communication cycle	1 min to 24 h			
Memory	32,000 readings (sum of all channels)			
Voltage supply	4 x AAA alkaline manganese batteries 1.5 V (permanent power supply possible with mains unit accessory)			
Battery life (measurement & communication cycle of 15 min)	1.5 years			
Dimensions	76 x 64 x 22 mm			
Weight (including batteries)	94 g		96 g	



# Accessories

	Order no.
Deco-cover for testo 160	0554 2006
Wall bracket for testo 160	0554 2013
Extension cable (0.6 m) for testo 160 probes	0554 2004
Extension cable (2.5 m) for testo 160 probes	0554 2005
Display cabinet bushing for testo 160	0554 2016
1x Alkaline manganese AAA battery down to -10 °C	0515 0009
4x Lithium AAA batteries below -10 °C	0515 0160
Power supply unit for testo online data loggers	0572 2020
ISO calibration certificate (temperature) -8 °C, 0 °C, +40 °C (for testo 160 TH / testo 160 E)	0520 0171
ISO calibration certificate (temperature) +15 °C, +25 °C, +35 °C (for testo 160 IAQ)	0520 0076
ISO calibration certificate (luminous intensity), calibration points 0; 500; 1000; 2000; 4000 lux	0520 0010

### **Probes**

Probe type	Temperature and humidity probe testo 160 E	Lux and UV sensor testo 160 E	Lux sensor testo 160 E
	Osco		
Measuring range	-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
Accuracy	±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 drift per year	DIN 5032-7 class C-compliant. ±3 lux or ±3% of reference (DIN 5032-7 class L) ±5 mW/m² or ±5% of m.v. (based on external reference)	DIN 5032-7 class C-compliant. ±3 lux or ±3% of reference (DIN 5032-7 class L)
Order no.	0572 2156	0572 2157	0572 2158



#### **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.



Subject to change, including technical modifications.