



testo 162

Online data loggers

0572 1621 – testo 162 T1

0572 1622 – testo 162 T2

0572 1623 – testo 162 T3

0572 1624 – testo 162 H1

0572 1625 – testo 162 H2

0572 1626 – testo 162 IAQ

User manual



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1 About this document

- The instruction manual is an integral part of the instrument.
- Keep this documentation to hand so that you can refer to it when necessary.
- Always use the complete original instruction manual.
- Please read this instruction manual through carefully and familiarize yourself with the product before putting it to use.
- Hand this instruction manual on to any subsequent users of the product.
- Pay particular attention to the safety instructions and warning advice in order to prevent injury and damage to the product.

2 Safety and disposal

2.1 Security

General safety instructions

- Only operate the product properly, for its intended purpose, and within the parameters specified in the technical data.
- Do not apply any force.
- Do not operate the instrument if there are signs of damage to the housing or connected cables.
- Dangers may also arise from objects to be measured or the measuring environment. Always comply with the locally valid safety regulations when carrying out measurements.
- Do not store the product together with solvents.
- Do not use any desiccants.
- Only perform maintenance and repair work on this instrument that is described in this documentation. Follow the prescribed steps exactly when doing the work.
- Use only original spare parts from Testo.

Batteries

- Improper use of batteries may cause the batteries to be destroyed, or lead to injury due to current surges, fire or escaping chemicals.
- Only use the batteries supplied in accordance with the instructions in the instruction manual.
- Do not short-circuit the batteries.
- Do not take the batteries apart and do not modify them.
- Do not expose the batteries to heavy impacts, water, fire or temperatures in excess of 60 °C.
- Do not store the batteries in the proximity of metal objects.
- Do not use any leaky or damaged batteries.
- In the event of contact with battery acid: rinse affected areas thoroughly with water, and if necessary consult a doctor.
- Do not use any leaky or damaged batteries.

Warnings

Always pay attention to any information denoted by the following warnings. Implement the precautionary measures specified!

 **DANGER**

Risk of death!

 **WARNING**

Indicates possible serious injury.

 **CAUTION**

Indicates possible minor injury.

 **ATTENTION**

Indicates possible damage to equipment.

2.2 Disposal

- Dispose of faulty rechargeable batteries and spent batteries in accordance with the valid legal specifications.
- At the end of its useful life, deliver the product to the separate collection point for electric and electronic devices (observe local regulations) or return the product to Testo for disposal.



■ WEEE Reg. No. DE 75334352

3 Intended use

The testo 162 online data loggers are used for storing and reading out individual readings and series of measurements.

The testo 162 online data loggers record measurement values (temperature and humidity, CO₂ concentration) and send them directly to the testo Saveris Cloud via a WLAN connection.



The humidity sensors testo 162 H1, testo 162 H2 and testo 162 IAQ may not be used in dust environment as the sensor could be polluted.

4 Product description

4.1 System overview

The testo 160 online data logger system is the modern solution for monitoring temperature and humidity values. Other measurement variables such as CO₂, atmospheric pressure, lux and UV can also be measured.

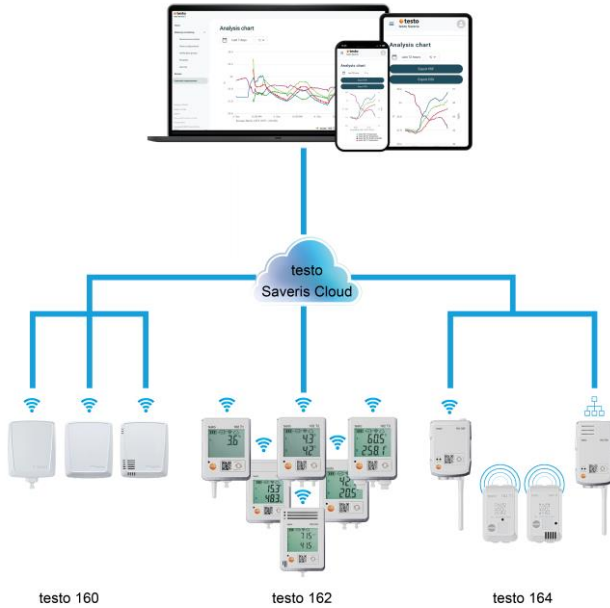
The testo 160 online data logger system consists of the hardware components (testo 160, testo 162, testo 164) as well as the testo Saveris Cloud and testo Smart App. The testo Saveris Cloud is the central data platform. Measurement values can be viewed and analyzed there.

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

Retrieve measured values on any end device

Storage of measured values in the Testo Cloud

Measurement value recording with online data loggers



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

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

A valid license must be purchased to operate the online data logger in the cloud (Data Monitoring License).

4.2 testo Account

The online data loggers (testo 160, testo 162, testo 164) require an associated testo account to ensure operation.

Each data logger operated there requires a testo Data Monitoring license.

4.3 testo 162 T1 / T2 / T3 / H2



Temperature measurements can be carried out with the testo 162 T1 / T2 / T3 online data loggers. The testo 162 T2 and testo 162 T3 data loggers also each have two connections for external NTC or PD temperature probes.

With the testo 162 H2 online data logger, temperature and humidity measurements can be carried out via an external NTC probe.



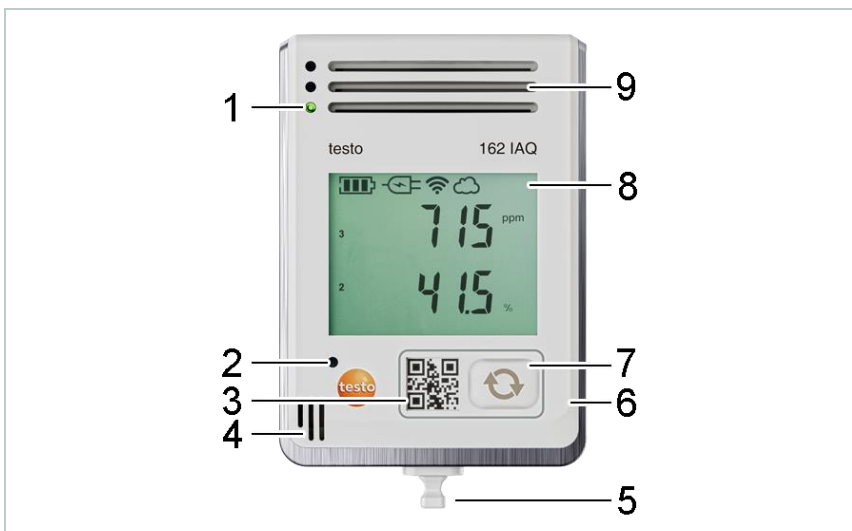
Element	Element
1 Display	2 Alarm LED, flashes red in the event of an alarm
3 QR code for direct access to instrument data in testo cloud	4 Control button, for manually start of data transfer
5 Battery compartment (rear)	6 USB and sensor sockets (underside, device-specific)

4.4 testo 162 H1 / testo 162 IAQ


















Temperature and humidity measurements can be carried out with the testo 162 H1 online data logger.

The testo 162 IAQ online data logger can be used to measure temperature, humidity, carbon dioxide concentration and atmospheric pressure.



Element	Element
1 Air quality traffic light (testo 162 IAQ only)	2 Alarm LED, flashes red in the event of an alarm
3 QR code for direct access to instrument data in testo cloud	4 Internal sensor for temperature and relative humidity
5 USB interface (underside)	6 Battery compartment (rear)
7 Control button, for manually start of data transfer	8 Display
9 CO ₂ sensor (only testo 162 IAQ)	

4.5 Display symbols

Symbol	Description
	Battery capacity 75% ... 100%
	Battery capacity 50% ... 74%
	Battery capacity 25% ... 49%
	Battery capacity 5% ... 24%, Symbol flashes: Battery capacity < 5%
	External power supply (via USB socket)
	WLAN signal strength 100%
	WLAN signal strength 75%
	WLAN signal strength 50%
	WLAN signal strength 25%
	Data connection to the cloud exists, Symbol flashes: Data connection to the cloud is being established
	Alarm message
	Measuring channel 1
	Measuring channel 2
	Alarm status: Upper limit value exceeded
	Alarm status: Lower limit value undershot

4.6 LED display – Configuration

Signal	Description
Online data logger flashes green briefly (200 ms) every 30 seconds.	Online data logger is in standby mode, no configuration has yet been stored in the online data logger.
Online data logger flashes green every second.	Online data logger is in configuration mode and can be configured within 5 minutes of activation.
Online data logger flashes red 3 times after configuration.	SSID/Account ID is not correct.
Online data logger flashes red 1 time (1 sec).	Online data logger was not configured within 5 min.
Online data logger flashes red 2 times after configuration.	Online data logger has no connection to the access point.

4.7 LED display – Operation

Signal	Description
Online data logger already configured flashes red briefly twice.	Online data logger has no connection to the access point, measurement data cannot be transferred to the cloud.
Online data logger flashes green once for a long time.	The online data logger has carried out a measurement.
Online data logger flashes red once for a long time.	An alarm has been detected by the online data logger.
Online data logger flashes green briefly 2 times.	Measurement data has been successfully transferred to the cloud, logger is back in the measurement cycle.
Online data logger flashes red 4 times for a long time.	Press the button on the front of the logger briefly (< 1 sec). If the online data logger flashes red 4 times again, the batteries are exhausted and must be replaced.
Online data logger flashes red / green alternately.	A firmware update is being carried out.

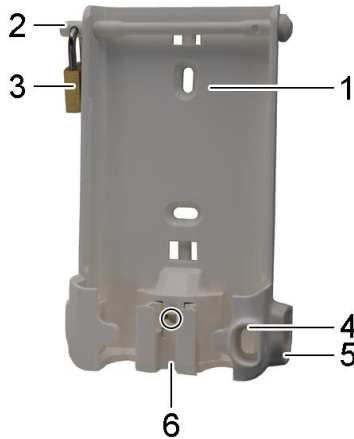
4.8 Wall brackets



The data loggers may only be mounted vertically. The connections must face downwards. For data loggers with a display, you must observe the reading direction. Otherwise the measurement accuracy may be distorted.

The wall brackets ensure that the online data loggers are held securely.

Mounting materials are not included in the scope of delivery. Select suitable mounting materials according to the desired mounting location (e.g. screws or cable ties).



Element	Element
1 Wall bracket with cut-outs for fastening materials	2 Safety bolt
3 Lock	4 Storage compartment Locking plug USB socket
5 Storage compartment Locking plug for probe socket (left / right)	6 Cable holder for USB cable, can be opened: press on the point marked with a circle using a screwdriver and slide the cable holder downwards.

Can be used for: testo 162 T1 (0572 1621), testo 162 T2 (0572 1622), testo 162 T3 (0572 1623) and testo 162 H2 (0572 1625)

4 Product description



Element		Element	
1	Online data logger	2	Wall bracket
3	Unlocking tool	4	Magnetic plate (can be ordered as an option, order number: 0554 2001)

Can be used for: testo 162 H1 (0572 1624) and testo 162 IAQ (0572 1626)

- 1 | Insert the unlocking tool into the unlocking opening..
- 2 | Pull the data logger upwards out of the wall bracket.

5 First steps

5.1 Creating a testo Account

If you do not yet have a testo account, register at: <https://www.testo.com/login>

Registration is also possible via the testo Smart App.



The testo Smart App is available for iOS devices in the AppStore or for Android devices in the Play Store.

Compatibility:

Requires iOS 13.0 or newer / Android 8.0 or newer, requires Bluetooth® 4.2.2.



5.2 Commissioning data loggers



The external probes must be connected to the online data logger **before** logging into the Cloud for the first time. If an additional probe is to be connected at a later stage, the online data logger must first be logged out of the Cloud. The external probe can then be connected and the online data logger logged in again.

CAUTION

Damage to online data loggers!

- Do not place near any solvents.
- Do not clean using solvents.

CAUTION

Potential damage to the optical components (testo 162 IAQ)

- Avoid any vibrations, the factory calibration may be altered. Check the readings in fresh air 350 to 450 ppm CO₂ (urban air up to 700 ppm CO₂).
- Prevent condensation. This can result in elevated CO₂ readings.
- Do not use aggressive cleaning agents.

- 1 | Remove the data logger from the packaging.
- 2 | Remove the data logger from the wall bracket.
- 3 | For testo 162 T1 / T2 / T3 / H2:
Loosen the battery cover by slightly loosening the screws on the back of the housing.

5 First steps

For testo 162 H1 and testo 162 IAQ:
Open the battery compartment cover.

- 4 Remove the battery fuse strip.



If the data logger is to be used at temperatures below $-10\text{ }^{\circ}\text{C}$, replace the existing batteries with lithium batteries (0515 0572).

- ▶ The data logger is now activated.

- 5 Tighten the screws on the back of the housing or close the battery compartment cover again.

- 6 For data loggers with external sensors:
Connect the sensor to the designated position.

Optional mains operation



The IAQ data logger has an increased energy requirement. This reduces the minimum measuring cycle in battery operation to 5 minutes. The use of the mains adapter included in the scope of delivery is therefore recommended.

The testo 162 online data loggers can also be supplied with power via the USB interface instead of batteries. However, the online data loggers do not have a charging function, i.e. no rechargeable batteries can be charged in the online data logger via the USB interface. When you connect the online data logger to the USB port of your PC, the online data logger automatically switches to mass storage and configuration mode. A computer is therefore not suitable as a power source for logger operation.

Symbol explanation

	Do not allow children under 6 years of age to play with batteries.
	Do not throw batteries in the trash.
	Do not charge batteries.
	Do not place batteries near fire.
	Batteries are recyclable.

5.3 Integrating data loggers into testo Account

There are several ways to integrate the online data loggers into your network and into your testo account:

- Commissioning via testo Smart App (via WLAN hotspot)
- Commissioning via desktop computer and testo Saveris Cloud (via USB cable)
- Offline commissioning via PDF (via USB cable)



In networks with WPA2 Enterprise encryption, commissioning via the testo Smart App is not possible.

5.3.1 Commissioning via testo Smart App



To establish a connection via WiFi hotspot, you need a tablet or smartphone with the Testo Smart App already installed on it.

You can get the App for iOS instruments in the App Store or for Android instruments in the Play Store.

Compatibility:

Requires iOS 13.0 or later / Android 8.0 or later.



- 1 | Open testo Smart App.
- 2 | Select the application **Datalogger & Monitoring | Monitoring**.
- 3 | Login or register in the testo account.
- 4 | Select **Add new data logger**.
- 5 | Follow the step-by-step instructions.

5.3.2 Commissioning via testo Saveris Cloud (via USB cable)

- 1 | Open testo Saveris Cloud: www.saveris.testo.com
- 2 | Log in to your testo account or register again.
- 3 | Select **Add new data logger**.
- 4 | Follow the step-by-step instructions.

5.3.3 Offline configuration via PDF (via USB-cable)

As an alternative to creating the configuration file in the Quick Start Guide with subsequent download of the XML configuration file, the WiFi data logger can also be configured via a PDF form.



You need the Adobe Reader program (version 10 or later) to use the PDF form correctly. If you have not installed Adobe Reader, you can go to the following address to download it free of charge:
<http://get.adobe.com/reader/>.

- ✓ Make sure that the batteries are inserted.
- 1 Connect the online data logger to the PC via USB connection.
- 2 Open the file **WiFiConf.pdf** on the external drive “testo 160”.
- 3 Copy your Account ID and paste it into the relevant field on the PDF form.
You will find the Account ID in the testo Account Information.



The testo 160 online data loggers can be configured for up to three WLAN networks. Network name (SSID), password and security settings can be stored for each profile.

- 4 Enter the **Network name (SSID)** and, if necessary, your **WLAN password** in the relevant fields on the PDF form.
- 5 Click on the **Save configuration** button.
 - ▶ A dialogue opens for exporting the form data.
- 6 Select the external drive testo 160 as the storage location and save the form data (configuration file **WiFiConf_Daten.xml**) on it.
 - ▶ The green and red LEDs light up simultaneously until the PDF document is completely generated.
- 7 Disconnect the USB connection to the PC to complete the configuration of the data logger.
- 8 Check whether the online data logger is shown within 15 min in your could account in **Device Overview**.



You can also save the configuration file locally on your computer. Other online data loggers can be configured even faster by simply copying the XML configuration file onto the external drive testo 160.

5.4 License

After successfully commissioning the data loggers, you must book a valid license for operating the data loggers in the testo Saveris Cloud.



Make sure that you have a valid license for each data logger.

- 1 | Open testo Cloud Account (in the testo Smart App or directly in the testo Saveris Cloud).
- 2 | Open **Account-Informationen**.
- 3 | Select **License Management**.

5.5 Configuration and operation of online-data loggers

The testo 160, testo 162 and testo 164 online data loggers can only be used and operated in conjunction with the testo Saveris Cloud.

Information on operating the data loggers (configuration, limit values, alarms, etc.) can be found in the notes and info boxes in the testo Saveris Cloud.

6 Maintaining the product

6.1 Cleaning the instrument

- 1 If the housing of the instrument is dirty, clean it with a damp cloth.



Do not use any aggressive cleaning agents or solvents! Mild household cleaning agents and soap suds may be used.

6.1.1 Changing batteries



A battery change stops a measurement that is currently running. However, stored data is preserved.

CAUTION

Incorrectly inserted batteries!

The instrument may be damaged!

- Pay attention to the polarity when inserting the batteries.



Only use new branded batteries. If a partially exhausted battery is inserted, the battery capacity will not be calculated correctly.

- 1 For testo 162 T1 / T2 / T3 / H2: Remove the battery cover by opening the screws on the back of the housing.

For testo 162 H1 and testo 162 IAQ: Open the battery compartment cover.
- 2 Change batteries. Observe polarity.
- 3 Tighten the screws on the back of the housing or close the battery compartment cover again..

7 Technical data

7.1 WiFi data loggers

Measurement-specific data



The humidity sensor attains the highest degree of accuracy in temperatures between + 5 °C and + 60 °C and 20% to 80% RH.

If the instrument is exposed to higher humidity for a long period of time, this can falsify the readings by up to 3% RH.

After 48 hours at 50% RH \pm 10 % and +20 °C \pm 5 °C, the sensor regenerates by itself.

Online data loggers	testo 162 T1	testo 162 T2	testo 162 T3
Order number	0572 1621	0572 1622	0572 1623
Temperature measurement			
Sensor type	NTC internal	NTC	Thermo element Type K, Type J, Type T
Measuring range	-30°C ... +50°C	-50°C ... +150°C	Type K: -195 ... +1350 °C Type J: -100 ... +750 °C Type T: -200 ... +400 °C
Accuracy	\pm 0,5 °C	\pm 0,3 °C	\pm (0,5 °C + 0,5 % of m.v.)
Resolution	0.1 °C		

7 Technical data

Online data loggers	testo 162 H1	testo 162 H2	testo 162 IAQ
Order number	0572 1624	0572 1625	0572 1626
Temperature measurement			
Sensor type	NTC intern	s. ext. probe	NTC internal
Measuring range	-30°C ... +50°C		0°C ... +50°C
Accuracy	± 0,5 °C		± 0,5 °C
Resolution	0,1°C		
Humidity measurement			
Sensor type	NTC internal	s. ext. probe	NTC internal
Measuring range	0 to 100% RH (non-condensing)		0 to 100% RH (non-condensing)
Accuracy	± 2% RH @ 25 °C & 20 to 80% RH ± 3% RH @ 25 °C & <20% RH & >80% RH ± 1% RH hysteresis ± 1% RH / year drift		± 2% RH @ 25 °C & 20 to 80% RH ± 3% RH @ 25 °C & <20% RH & >80% RH ± 1% RH hysteresis ± 1% RH / year drift
Resolution	0.1% RH		
CO₂ measurement			
Measuring range			0 ... 5000 ppm
Accuracy			± (50 ppm + 3% of m.v.) (@ 25 °C) Battery-operated: ± (100 ppm + 3% of m.v.) (@ 25 °C)
Resolution			1 ppm
Atmospheric pressure measurement			
Measuring range	600 to 1100 mbar		600 ... 1100 mbar
Accuracy	± 3 mbar @ 22 °C		±3 mbar bei +22 °C
Resolution	1 mbar		1 mbar



The time between the system warning "Battery almost discharged" and "Measurement data stop" is at the most one day during standard operation and a measuring cycle & communication cycle of 1 min (day & night) (battery type: Varta Industrial).

The online data loggers come with a factory calibration protocol as standard. For many application areas it is recommend to do a re-calibration every 12 months.

General data

Online data loggers	testo 162 T1	testo 162 T2	testo 162 T3
Order number	0572 1621	0572 1622	0572 1623
Operating temperature	-30°C...+50°C		
Storage temperature	-40°C...+70°C		
Protection class	IP65	IP65	IP54
Measuring and communication cycle	1 min to 24 h flexible		
Memory	10,000 readings per channel		
Voltage supply	4 x AA AIMn batteries optional mains adapter for temperatures below -10 °C please use lithium batteries (0515 0572)		
Battery life	12 months ¹ at +25 °C, 15-minute measuring cycle and 30 min communication cycle (8 h / day) and 120 min communication cycle at night ² (16 h / day) at -30 °C, 15-minute measuring cycle and 30 min communication cycle (8 h / day) and 120 min communication cycle at night (16 h / day) with lithium batteries (0515 0572)		
Dimensions	123 x 75 x 31 mm	95 x 75 x 31 mm	
Weight including batteries	240 g		

¹ Typical value, depending on the WLAN infrastructure

² Energy saving mode

7 Technical data

Online data loggers	testo 162 H1	testo 162 H2	testo 162 IAQ
Order number	0572 1624	0572 1625	0572 1626
Operating temperature	-30°C...+50°C		0°C...+50°C
Storage temperature	-40°C...+70°C		-20°C...+50°C
Protection class	IP30	IP54	IP30
Measuring and communication cycle	1 min to 24 h flexible		Mains operation: 1 min ... 24 h flexible Battery operation: 5 min ... 24 h flexible
Memory	10,000 readings per channel		32,000 readings (total of all channels)
Voltage supply	4 x AA AlMn batteries optional mains adapter for temperatures below -10 °C please use lithium batteries (0515 0572)		
Battery life	12 months ³ at +25 °C, 15-minute measuring cycle and 30 min communication cycle (8 h / day) and 120 min communication cycle at night ⁴ (16 h / day) at -30 °C, 15-minute measuring cycle and 30 min communication cycle (8 h / day) and 120 min communication cycle at night (16 h / day) with lithium batteries (0515 0572)		Mains operation recommended
Dimensions	117 x 82 x 32 mm	95 x 75 x 31 mm	117 x 82 x 32 mm
Weight including batteries	250 g	240 g	269 g

³ Typical value, depending on the WLAN infrastructure

⁴ Energy saving mode

WiFi-specific data

Online data loggers	testo 162 T1	testo 162 T2	testo 162 T3
Order number	0572 1621	0572 1622	0572 1623
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		

Online data loggers	testo 162 H1	testo 162 H2	testo 162 IAQ
Order number	0572 1624	0572 1625	0572 1626
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		

Technical data for a secure wireless LAN**Ports**

The testo 160 online data loggers use the MQTT protocol, which communicates via port TCP 1883 and 8883.

These UDP port approvals are also required:

- Port 53 (DNS name resolution)
- Port 123 (NTP time synchronisation)

All ports only have to be able to communicate externally to the Cloud. No bi-directional port approvals are necessary.



During the initial configuration, it is possible to select whether DHCP or Static IP is used (select Expert mode for the corresponding information). (Not possible in the Setup assistant.)

**testo Saveris Cloud**

The testo Saveris Cloud is accessible via a normal, up-to-date browser (www). The standard TCP ports http (80) and https (443) are used.

8 Tips and assistance

8.1 Questions and answers

- **Can the online data logger be connected to the PC using any USB cable?**

We recommend that you use the USB cable supplied with the online data logger to guarantee stable data transmission. Longer USB cables are suitable for the power supply only.

- **Can the online data logger also be used in networks with WPA2 Enterprise encryption?**

testo 162 data loggers can be used in networks with the following WPA2 Enterprise encryption methods.

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

To integrate the loggers into the WPA2 Enterprise network, proceed as follows:

1. Open the PDF file stored on the logger and generate a corresponding XML file by selecting the programming options step by step.
2. Copy your company-specific WPA2 Enterprise certificates and the generated .XML file to the logger's mass storage via USB using drag & drop.
3. Please note that the configuration of the online data logger will only be fully transferred once the USB connector has been removed.



However, connections between the online data loggers and the testo Smart App are not possible in networks with WPA2 Enterprise encryption.

-
- **The XML configuration file is not being applied by the online data logger, what can I do?**

Depending on the operating system, there may be difficulties with the data transfer if the configuration file name has been changed. Leave the default file name.

- **The humidity sensor has been stored at a high temperature (> 30 °C) and in very high humidity (> 80% RH) for a long period of time, what can I do?**

The sensor requires a long period of time to regenerate itself again. This process can be accelerated by storing the sensor in a well-ventilated location at a high temperature (> 30 °C) and in low humidity (< 20% RH) for at least 12 hours.

- **The online data logger's wireless connection to the access point was interrupted, what can I do?**

1. Press the control key on the online data logger to start searching for a WLAN connection manually.

2. Change the alignment or position of the online data logger or the access point (WLAN router).

The error codes can be read out using a web browser via a smartphone/tablet or PC. Press the probe button for 3 seconds. Then enter the following IP address 192.168.1.1 in the web browser.

- **The humidity measurement seems to provide incorrect readings. What can I do?**

The logger may have been exposed to too high an ambient humidity (>80 % RH) for too long. Especially in combination with high temperatures, this can affect the measurement signal of the humidity sensor. The sensor requires a longer period of time to regenerate. This process can be accelerated by storing the sensor well ventilated at high temperature (> 30°C) and low humidity (< 20 % rH) for at least 12 hours.

- **The CO₂ measurement seems to provide incorrect readings. What can I do?**

The CO₂ sensor is a precision optical measuring device. Vibrations and shocks may have changed the factory calibration. Recalibration can be carried out by Testo Industrial Services (TIS) or other certified service providers.

- **The calibration of the humidity sensor has failed. What can I do?**

When calibrating humidity sensors, ensure sufficiently long adjustment times and sufficient air circulation. You can find more information in the download area of the testo 162 series.

8.2 Signals of status LED

The following table provides an overview of the meaning of the various status LED signals of the testo 162 online data logger.

Signal	Description
LED does not flash	Sleep mode
LED flashes green at one-second intervals (for 5 min, then 1 long red flash)	Configuration mode (hotspot) - press button > 3 sec
LED flashes green every 200 ms (for 10 seconds)	Configuration app: During hotspot mode press button < 3 sec
LED gives 2 red flashes	Connection to WLAN failed (incorrect SSID, incorrect SSID password, incorrect account ID or incorrect account password, attempt to log the testo 162 H2 into the Cloud without any external probes connected.)
If XML is correct, LED gives 1 long green flash If XML is incorrect, LED gives 3 red flashes	Configuration via USB/PDF
LED gives 2 green flashes	Connection to WLAN and Cloud successful
LED gives 1 long red flash	Alarm activated due to limit value violation
LED gives 5 green flashes	Reset WiFi data logger to factory settings Press key > 20 sec
LED gives 1 green flash (measurement data collected)	Send measurement data to the Testo Cloud (website): press key < 3 sec
LED gives 2 short green flashes (measurement data transmitted)	Measurement data transmitted successfully
LED gives 4 red flashes	Batteries spent
LED flashes alternately green and red	Firmware update via USB or wireless



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