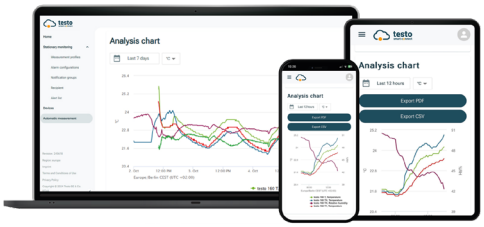
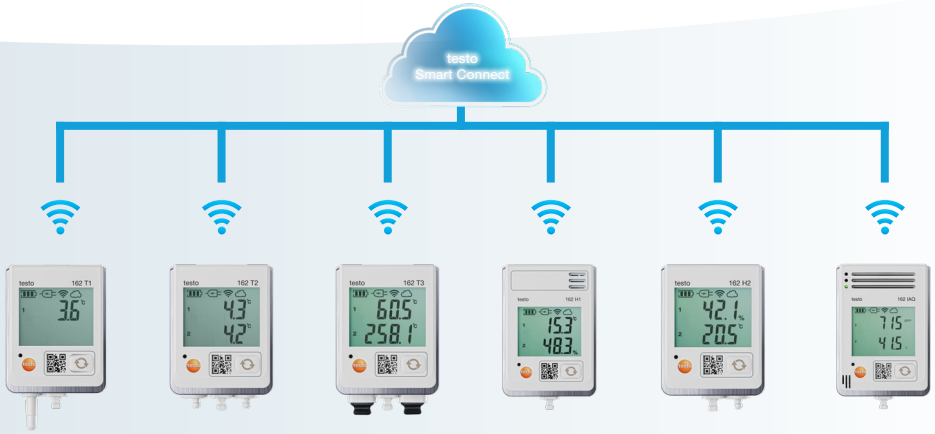
Be sure. testo

Monitoring system

testo 162 – Online data logger system for monitoring temperature and humidity





- 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 the testo Smart Connect Cloud

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

The testo 162 online data loggers are part of the testo 160 online data logger system. They record measurement values (temperature, humidity and CO_2) and send them directly to the testo Smart Connect Cloud via a WLAN connection.

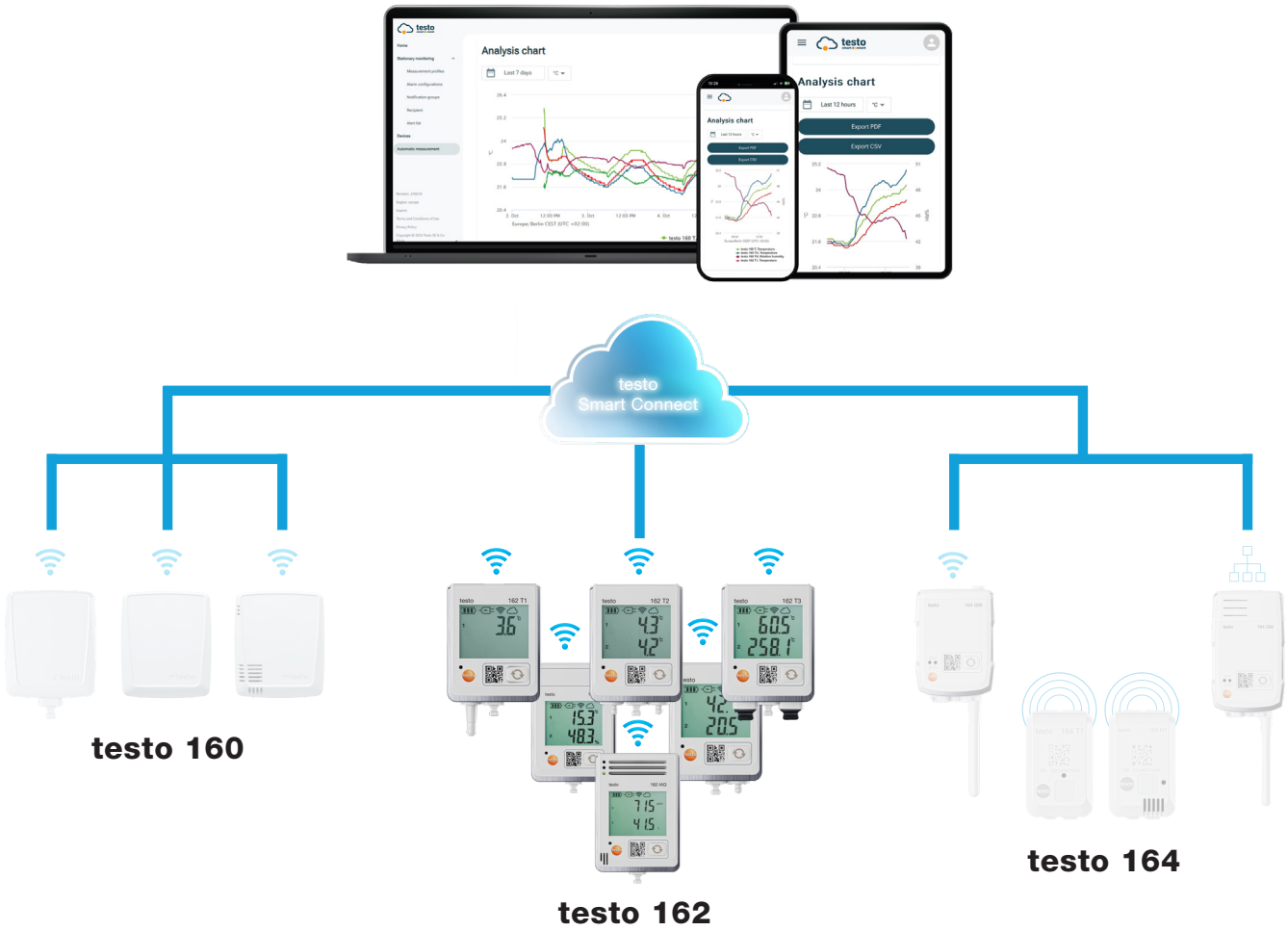
If limit values are exceeded, the testo Smart App alerts you directly via push notification of limit value violations. Alternatively, you can be notified by email or SMS.

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 Smart Connect Cloud (Data Monitoring License).

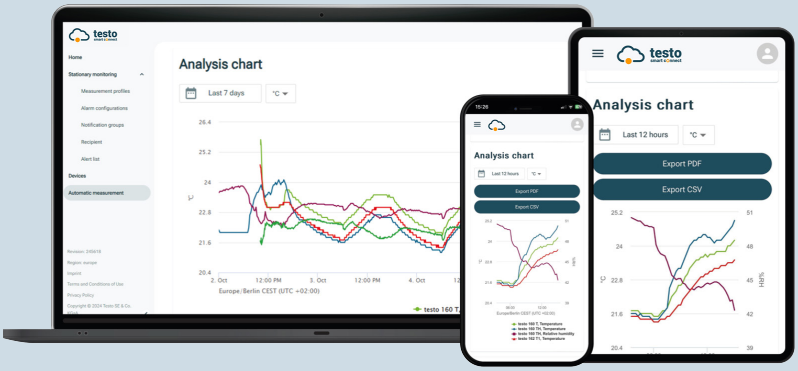
How indoor climate monitoring works with the testo 160 online data logger system

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

Order no. Data Monitoring License: 0526 5161

Order data for online data loggers

testo 162 T1

testo 162 T1 - Online data logger with display and integrated temperature sensor

Order no. 0572 1621

testo 162 T2

testo 162 T2 - Online data logger with display and 2 connections for NTC temperature probes

Order no. 0572 1622

testo 162 T3

testo 162 T3 - Online data logger with display and 2 connections for TC temperature probes

Order no. 0572 1623

testo 162 H1

testo 162 H1 - Online data logger with display and integrated temperature and humidity sensor

Order no. 0572 1624

testo 162 H2

testo 162 H2 - Online data logger with display and connections for temperature and humidity probes

Order no. 0572 1625

testo 162 IAQ

testo 162 IAQ - Online data logger with display and integrated sensors for temperature, humidity, CO2 and atmospheric pressure

Order no. 0572 1626

testo 162 refrigergator kit

The testo 162 refrigerator kit includes a testo 162 T2 online data logger, two NTC ribbon temperature probes and two temperature simulation vials for filling with glycol. This kit can be used to monitor refrigerator temperatures.

Order no. 0572 1629

Technical data for testo 162 online data loggers

	Online data logger testo 162 T1	Online data logger testo 162 T2	Online data logger testo 162 T3
Temperature measurement			
Sensor type	NTC internal	NTC	Thermocouple Type K, Type J, Type T
Measuring range	-30 to +50 °C	-50 to +150 °C	Type K: -195 to +1350 °C Type J: -100 to +750 °C Type T: -200 to +400 °C
Accuracy (±1 digit)	±0.5 °C	±0.5 °C	±0.5 °C
Resolution	0.1 °C	0.1 °C	0.1 °C
Certificates/Approvals			
	EN12830, HACCP		–
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		
Storage temperature	-40 to +70 °C		
Protection class	IP65		IP54
Measuring cycle & communication cycle	1 min to 24 h		
Memory	10,000 readings/channel		
Battery life (measurement & communication cycle of 15 min)	1 year		
Dimensions	95 x 75 x 30.5 mm		
Weight (including batteries)	240 g		

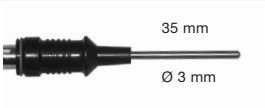
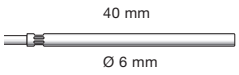
Technical data for testo 162 online data loggers

	Online data logger testo 162 H1	Online data logger testo 162 H2	Online data logger testo 162 IAQ
Temperature measurement			
Sensor type	NTC internal	NTC	NTC
Measuring range	-30 to +50 °C	see technical data for connectable probes	0 to +50 °C
Accuracy (±1 digit)	±0.5 °C	see technical data for connectable probes	±0.5 °C
Resolution	0.1 °C		
Humidity measurement			
Sensor type	NTC internal	–	–
Measuring range	0 to 100 %RH (non-condensing)	–	0 to 100 %RH (non-condensing)
Accuracy	±2 %RH (0 … 90 % RH @25 °C) ±1 %RH hysteresis ±1 %RH drift per year ±0,03 % RH /K (k=1)	see technical data for connectable probes	±2 %RH (20 … 80 % RH @25 °C) ±3 %RH (@ 25 °C & < 20 % RH & > 80 % RH) ±1 %RH hysteresis ±1 %RH drift per year
Resolution	0.1 %RH	0.1 %RH	0.1 %RH
CO_2 measurement			
Measuring range	–	–	0 to 5000 ppm
Accuracy	–	–	±(50 ppm + 3% of m.v.) at +25 °C // ±(100 ppm + 3% of m.v.) at +25 °C (with battery operation)
Resolution	–	–	1 ppm
Atmospheric pressure			
Measuring range	–	–	600 to 1100 mbar
Accuracy	–	–	±3 mbar at +22 °C
Resolution	–	–	1 mbar
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		
Storage temperature	-40 to +70 °C		-20 to +50 °C
Protection class	IP30	IP54	IP20
Measuring cycle & communication cycle	1 min to 24 h	1 min to 24 h	1 min to 24 h (with continuous power supply) 5 min to 24 h (with battery operation)
Memory	10,000 readings/channel		32,000 sum of all channels
Battery life (measurement & communication cycle of 15 min)	1 year		
Dimensions	115 x 82 x 31 mm	95 x 75 x 30.5 mm	117 x 82 x 32 mm
Weight (including batteries)	240 g		

Accessories

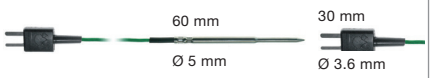
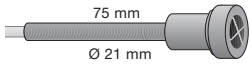
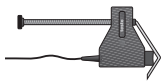
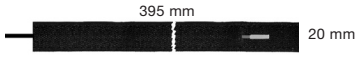
	Order no.	
Door contact cable for testo 162 T2	0572 2152	
Power supply unit for testo online data loggers	0572 2020	
4x AA batteries for operation down to -10 °C	0515 0414	
4x AA batteries for operation below -10 °C	0515 0572	
Magnetic adapter for wall bracket	0554 2001	
Wall bracket for testo 162 H1, IAQ	0554 2015	
Deco-cover for testo 162 IAQ	0554 2012	
ISO calibration certificate (temperature); temperature probe; calibration points +15 °C, +25 °C, +35 °C; per channel/instrument	0520 0172	
ISO calibration certificate (humidity); calibration points 11.3 %RH and 75.3 %RH at +25 °C/+77 °F; per channel/instrument	0520 0076	
DAkkS calibration certificate (humidity); humidity probe; calibration points 11.3 %RH and 75.3 %RH at +25 °C; per channel/instrument	0520 0246	
ISO calibration certificate (CO_2), calibration points 0; 1000; 5000 ppm	0520 0033	

Temperature probes for testo 162 T2

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t_{99}	Order 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 sec	0628 7510
Stationary probe with aluminium sleeve, IP 65, fixed cable 2.4 m		-30 to +90 °C	±0.2 °C (0 to +70 °C) ±0.5 °C (remaining meas. range)	190 sec	0628 7503
Accurate immersion/penetration probe, cable length 6 m, IP 67, fixed cable		-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining meas. range)	5 sec	0610 1725
Probe for surface measurement, fixed cable, 2 m		-50 to +80 °C	±0.2 °C (0 to +70 °C)	150 sec	0628 7516
Penetration probe, NTC with ribbon cable, cable length 2 m, IP 54, fixed cable		-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 sec	0572 1001
Pipe wrap probe with Velcro tape for pipe diameters up to max. 75 mm, Tmax. +75 °C, NTC, fixed cable		-50 to +70 °C	±0.2 °C (-25 to +70 °C) ±0.4 °C (-50 to -25.1 °C)	60 sec	0613 4611
External temperature probe 12 mm, plug-in, without cable		-30 to +50 °C	±0.2 °C (-30 to +50 °C)		0572 2153

More probes at www.testo.com!

Temperature probes for testo 162 T3

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t_{99}	Order no.
Stationary probe with stainless steel sheath, TC type K	 Connection: fixed cable 1.9 m	-50 to +205 °C	Class 2*	20 sec	0628 7533
Penetration probe, TC type K with ribbon cable, cable length 2 m, IP 54		-40 to +220 °C	Class 1 (-25 to +200 °C) Class 2 (<-25 °C and >+200 °C)	7 sec	0572 9001
Magnetic probe, adhesive power approx. 10 N, with adhesive magnets, for higher temperatures, for measurements on metal surfaces, TC type K	 Connection: fixed cable 1.6 m	-50 to +400 °C	Class 2*		0602 4892
Pipe wrap probe for pipe diameters 5 to 65 mm, with replaceable measuring head, short-term measuring range up to +280 °C, TC type K	 Connection: fixed cable 1.2 m	-60 to +130 °C	Class 2*	5 sec	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	 Connection: fixed cable 1.5 m	-50 to +120 °C	Class 1*	90 sec	0628 0020
Flexible, low-mass immersion measuring tip, ideal for measurements in small volumes, such as Petri dishes, or for surface measurements (e.g. fixing 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		-200 to +1000 °C	Class 1*	1 sec	0602 0493

*According to standard EN 60584-1, the accuracy of Class 1 refers to -40 to +1000 °C (Type K), Class 2 refers to -40 to +1200 °C (Type K), Class 3 refers to -200 to +40 °C (Type K).

Humidity/temperature probes for testo 162 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		-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

More probes at www.testo.com!

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Subject to change, including technical modifications.