

WiFi data logger system

testo Saveris 2 –
temperature, humidity and
CO₂ monitoring re-thought

Data transfer by wireless LAN

All measurement data always available, anywhere,
on any instrument

Alarms when limit values are violated

Cost-free online data store (Testo Cloud)



°C

%RH

CO₂

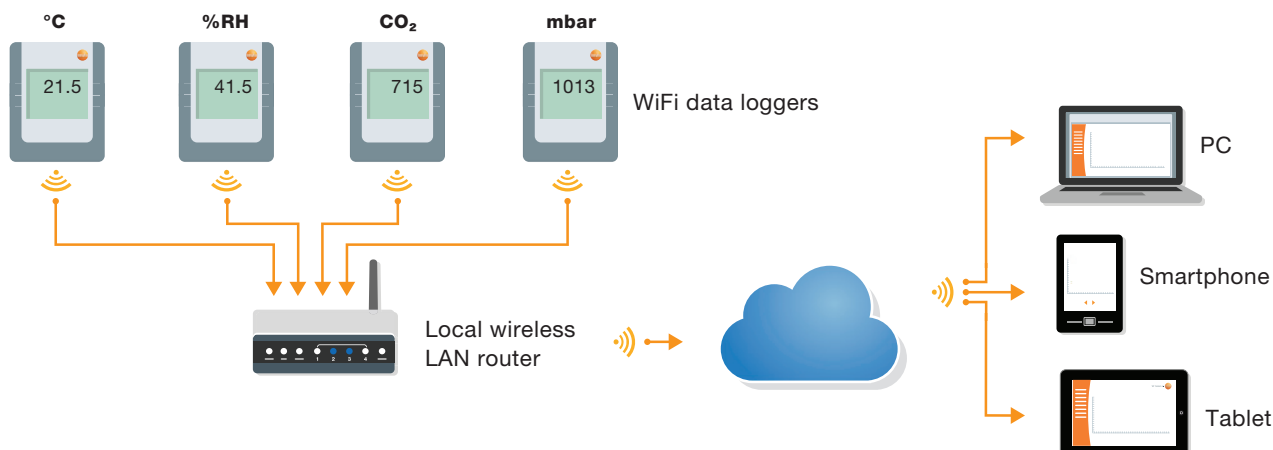
mbar

The testo Saveris 2 WiFi data logger system is the modern solution for monitoring temperature and humidity values as well as CO₂ 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 CO₂ 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 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 Free	Advanced
Measuring cycle	15 min to 24 h	1 min to 24 h
Communication cycle	15 min to 24 h	1 min to 24 h
Data storage	Max. 3 months	Max. 2 years
Reports	Manual (.pdf/.csv)	Manual (.pdf/.csv) Automatic (.pdf/.csv)
Data analysis	For one measurement site each (external probes count as measurement sites)	For up to 10 measurement channels simultaneously
Number of users per account	1	10
Number of WiFi data loggers per account	Unlimited	Unlimited
Alarm options	Upper/lower alarm limits	- Upper/lower alarm limits - Alarm delay - Time control of alarms
System notifications	- Notification of low battery - Radio link interrupted - Power supply interrupted	- Notification of low battery - Radio link interrupted - Power supply interrupted
E-mail alarm	Yes	Yes
SMS alarm	No	- Including 25 SMS per logger and year - Option of purchasing additional SMS packages
		12-month licence Order no. 0526 0735
		24-month licence Order no. 0526 0732
		36-month licence Order no. 0526 0733

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, CO₂ 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) and a wireless LAN-capable network are absolutely necessary.

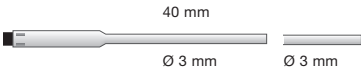
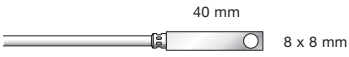
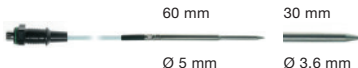
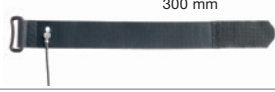
Technical data

	testo Saveris 2- T1	testo Saveris 2- T2	testo Saveris 2- T3			testo Saveris 2- H1	testo Saveris 2- H2	testo 160 IAQ
Temperature measurement								
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							0.1 °C
Humidity measurement								
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		
CO ₂ measurement								
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
Pressure measurement								
Measuring range	–							600 to 1100 mbar
Accuracy	–							±3 mbar at +22 °C
Resolution	–							1 mbar
Temperature/humidity measurement via external probes								
External probe connection	–	External temperature probes	External temperature probes			–	External humidity/temperature probe	–
General technical data								
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					
Communication								
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

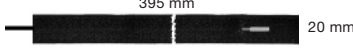
Accessories	Order no.	
Door contact for testo Saveris 2-T2 WiFi data logger	0572 2152	
Mains unit for testo Saveris 2 WiFi data loggers	0572 2020	
Battery for WiFi probes (4 x AA alkali manganese Mignon batteries))	0515 0414	
Batteries for operating WiFi data loggers testo Saveris 2 below -10 °C (4 x 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 ₂ , 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 ₉₉	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!

Temperature probes for testo Saveris 2-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	 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	 395 mm 20 mm 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 60584-2, 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	 105 mm Ø 12 mm	-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 12 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

More probes at www.testo.com!



Mini data logger Temperature

testo 174T

Display of current temperature value

High data security

Large display

Fast data analysis and documentation on a PC

Waterproof according to IP65

Measurement data memory for 16,000 measurement values

HACCP-compliant and certified according to EN 12830



Illustration 1:1



The mini data logger for temperature, testo 174T, is ideal for accompanying transports. Simply positioned close to the goods, e. g. in containers and refrigerated rooms, the data logger monitors temperature continuously, securely and unobtrusively. The free software ComSoft Basic allows fast programming of the data logger and easy analysis.

The integrated NTC probe stands for high accuracy. Its large measuring range and compact design make the testo 174T the competent assistant for almost any temperature recording job.

Technical data / Accessories

testo 174T

testo 174T mini data logger, 1-channel,
incl. wall bracket, battery (2 x CR 2032
lithium) and calibration protocol

Part no. 0572 1560



Set testo 174T

testo 174T mini data logger set, 1-channel,
incl. USB interface for programming and
reading out the logger, wall bracket, battery
(2 x CR 2032 lithium) and calibration protocol

Part no. 0572 0561



Sensor type NTC

Measuring range	-30 to +70 °C
Accuracy ±1 digit	±0,5 °C (-30 to +70 °C)
Resolution	0,1 °C

General technical data

Channels	1 x internal
Battery type	2 lithium batteries (CR2032)
Battery life	500 days (15 min measuring cycle, +25 °C)
Operating temperature	-30 to +70 °C
Storage temperature	-40 to +70 °C
Dimensions	60 x 38 x 18,5 mm
Weight	35 g
Certification	EN12830
Protection class	IP65
Measuring rate	1 min - 24 h
Memory	16.000 readings

Accessories for measuring instrument

Part no.

USB interface for programming and readout of the loggers testo 174T and testo 174H	0572 0500	
Lithium battery CR 2032 button cell (please order 2 batteries per logger)	0515 5028	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function. (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153	

Mini data logger Temperature and humidity

testo 174H

Long-term stable humidity sensor

High data security

Large display

Display of current temperature or humidity values

Measurement data store for 16,000 measurement values

Fast data analysis and documentation on a PC



Illustration 1/1

The mini data logger for temperature and humidity testo 174H is ideal for monitoring temperature- and humidity-sensitive goods in storage. The testo 174H also monitors building climate continuously, securely and unobtrusively. The free software ComSoft Basic allows fast programming of the data logger and easy analysis.

The low-cost temperature and humidity data logger guarantees secure measurement results on the basis of state-of-the-art measurement technology. The integrated sensors ensure long-term stable measurement values. This allows you to adhere to and safely document quality assurance guidelines.

Technical data / Accessories

testo 174H

testo 174H mini data logger, 2-channel,
incl. wall bracket, battery (2 x CR 2032
lithium) and calibration protocol

Part no. 0572 6560



Set testo 174H

testo 174H mini data logger set, 2-channel,
incl. USB interface for programming and
reading out the logger, wall bracket, battery
(2 x CR 2032 lithium) and calibration protocol

Part no. 0572 0566



Sensor type NTC

Measuring range	-20 to +70 °C
Accuracy ±1 digit	±0.5 °C (-20 to +70 °C)
Resolution	0.1 °C

Sensor type Testo humid. sensor, cap.

Measuring range	0 to 100 %RH*
Accuracy ±1 digit	±3 %RH (2 to 98 %RH) ±0.03 %RH/K
Resolution	0.1 %RH

* Not for condensing atmospheres. For continuous use in high humidity (>80 %RH at ≤30 °C for >12 h, >60 %RH at >30 °C for >12 h), please contact us via our website.

General technical data

Channels	2 x internal
Battery type	2 lithium batteries (CR2032)
Battery life	1 year (15 min measuring cycle, +25 °C)
Operating temperature	-20 to +70 °C
Storage temperature	-40 to +70 °C
Dimensions	60 x 38 x 18,5 mm
Weight	35 g
Protection class	IP20
Measuring rate	1 min - 24 h
Memory	16.000 readings

Accessories for measuring instrument

Part no.

USB interface for programming and readout of the loggers testo 174T and testo 174H	0572 0500	
Lithium battery CR 2032 button cell (please order 2 batteries per logger)	0515 5028	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153	
ISO calibration certificate humidity calibration points 11.3 %RH and 75.3 %RH at +25 °C/+77 °F; per channel/instrument	0520 0076	

Data logger Temperature

testo 175 T1 / testo 175 T2

High data security

Large, easily legible display

Measurement data memory for 1 million measurement values

Up to 3 years' battery life

Data transfer via USB cable or SD card

Complies with DIN EN 12830



Illustration 1:1

The testo 175 T1 is the compact data logger for the long-term monitoring of refrigerated and deep-freeze rooms as well as for the documentation of transport temperature in delivery vehicles. The large 1 million measurement value memory and the long-life batteries allow readout at greater intervals, in spite of the shorter measurement rate. The free ComSoft Basic software allows fast programming of the data logger and easy data analysis. The version

testo175 T2 additionally has a connection for an external NTC temperature probe for measuring the core temperature of goods, for example. Like all Testo data loggers for applications in the food sector, the testo 175 T1 and testo 175 T2 are tested according to DIN EN 12830 by the ATP testing section of the TÜV Süd for HACCP purposes.

Technical data

testo 175 T1

testo 175 T1, 1-channel temperature logger with internal sensor (NTC) incl. wall holder, lock, batteries and calibration protocol

Part no. 0572 1751



Set testo 175 T1

Starter set testo 175 T1 consisting of:
3 x testo 175 T1
1 x USB cable
1 x SD card

Part no. 0572 1750

testo 175 T2

testo 175 T2, 2-channel temperature data logger with internal (NTC), and external sensor connection (NTC) incl. wall holder, lock, batteries and calibration protocol

Part no. 0572 1752



General technical data

Battery type	3 x AIMn Type AAA or Energizer
Battery life	3 years (15 min. meas. rate, +25 °C)
Operating temperature	-35 to +55 °C
Storage temperature	-35 to +55 °C
Dimensions	89 x 53 x 27 mm
Weight	130 g
Housing	ABS/PC
EC Directive	2004/108/EC, complies with the EN standard 12830
Protection class	IP65
Measuring rate	10 s - 24 h
Memory	1 mio. measurement values

	testo 175 T1	testo 175 T2
Sensor type	NTC	NTC
Channels	1 x internal	1 x internal, 1 x external
Measuring range	-35 to +55 °C	-35 to +55 °C int. -40 to +120 °C ext.
Accuracy ±1 digit	±0.5 °C (-35 to +55 °C)	±0.5 °C (-35 to +55 °C) int. ±0.3 °C (-40 to +120 °C) ext.
Resolution	0.1 °C	0.1 °C



Lateral connection of Mini USB cable and SD card



Probe connection at lower end of housing for external NTC probe (testo 175 T2 only)

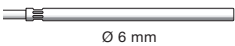
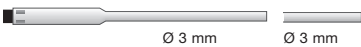
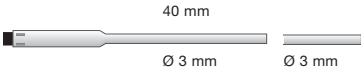


Large, clear display for showing measurement values

Accessories

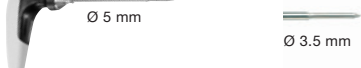
Accessories for measuring instrument	Part no.
Mobile printer for data loggers testo 175/176/184	0572 0576
Wall holder (black) with lock for testo 175	0554 1702
Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB	0449 0047
SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C	0554 8803
Battery for testo 175 Range of application to -10 °C, alkali manganese microcell AAA (please order 3 batteries per logger)	0515 0009
Batteries for use below -10 °C, lithium batteries AAA (3 off)	0515 0042
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580
ComSoft Professional, Pro software incl. data archiving	0554 1704
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153
DAkkS calibration certificate/temperature temp. data logger; cal. points -18 °C; 0 °C; +40 °C; per channel/instrument	0520 0262

Probes for testo 175 T2

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
NTC					
Stub 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 range)	190 s	0628 7503 ¹⁾
Accurate immersion/penetration probe, 6m cable, 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 range)	5 s	0610 1725
Accurate immersion/penetration probe, cable: 1.5 m long, IP 67, Fixed cable 1.5 m	 40 mm Ø 3 mm Ø 3 mm	-35 to +80 °C	±0.2 °C (-25 to +74.9 °C) ±0.4 °C (-35 to -25.1 °C) ±0.4 °C (+75 to +80 °C)	5 s	0628 0006 ¹⁾
Probe for surface measurement, 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
Wall surface temperature probe, e.g. to prove damage in building material, Fixed cable, 3 m	 30 mm Ø 3.6 mm	-50 to +80 °C	±0.2 °C (-25 to +80 °C) ±0.5 °C (-40 to -25.1 °C)	20 s	0628 7507
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 range)	8 s	0572 1001

¹⁾ Probe tested according to EN 12830 for suitability in the transport and storage applications

Probes for testo 175 T2

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
NTC					
Efficient, robust NTC air probe, Fixed cable, 1.2 m		-50 to +125 °C	±0.2 °C (-25 to +80 °C) ±0.4 °C (remaining range)	60 s	0613 1712
Waterproof NTC surface probe for flat surfaces, Fixed cable, 1.2 m		-50 to +150 °C	±0.5% of m.v. (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	35 s	0613 1912
Pipe wrap probe with Velcro for pipe diameter 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 s	0613 4611
Waterproof NTC immersion/ penetration probe, Fixed cable 1.2 m		-50 to +150 °C	±0.5% of m.v. (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	10 s	0613 1212
Stainless steel NTC food probe (IP65) with PUR cable, Fixed cable 1.6 m		-50 to +150 °C ¹⁾	±0.5% of m.v. (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 2211 ²⁾
Stainless steel NTC food probe (IP67) with PTFE cable to +250°C, Fixed cable		-50 to +150 °C	±0.5% of m.v. (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	8 s	0613 3311
Robust NTC food penetration probe with special handle, reinforced PUR cable, Fixed cable		-25 to +150 °C ¹⁾	±0.5% of m.v. (+100 to +150 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	7 s	0613 2411
Frozen food probe NTC, corkscrew design (incl. plug-in wire)		-50 to +140 °C ¹⁾	±0.5% of m.v. (+100 to +140 °C) ±0.2 °C (-25 to +74.9 °C) ±0.4 °C (remaining range)	20 s	0613 3211

1) Long-term measurement range +125 °C, short-term +150 °C (2 minutes)

2) Probe tested according to EN 12830 for suitability in the transport and storage applications

0981 3834/msp/I/05.2020

Subject to change without notice.

Data logger Temperature

testo 175 T3

Large, easily legible display

High data security

Measurement data memory for 1 million measurement values

Up to 3 years' battery life

Data transfer via USB cable or SD card

Two external sensor connections
(thermocouple Type T and Type K)



IP65



Illustration 1:1

Temperature often needs to be monitored and recorded simultaneously at two sites. The testo 175 T3 is excellently suited to this job, thanks to two connections for external thermocouple probes (Type K and Type T). The wide measuring range makes the data logger universally applicable.

The free ComSoft Basic software allows fast programming of the data logger and easy data analysis.

In the autumn, the heating period begins, and with it the time for complaints by tenants that their apartments cannot be heated to the desired extent. With the testo 175 T3 and the versatile external thermocouple probes, you can, for example, perform targeted checks on the flow and return temperatures of individual radiators, in order to identify and remedy causes.

Technical data / Accessories

testo 175 T3

testo 175 T3, 2-channel temperature data logger with external sensor connections (TC Type T and Type K) incl. wall holder, lock, batteries and calibration protocol

Part no. 0572 1753



General technical data

Channels	2 x external
Battery type	3 x AlMn Typ AAA or Energizer
Battery life	3 years (15 min. measuring cycle, +25 °C)
Operating temperature	-20 to +55 °C
Storage temperature	-20 to +55 °C
Dimensions	89 x 53 x 27 mm
Weight	130 g
Housing	ABS/PC
EC Directive	2004/108/EC
Protection class	IP65
Measuring rate	10 s - 24 h
Memory	1 mio. measurement values

Sensor types

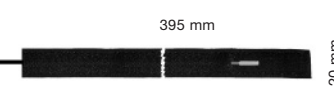
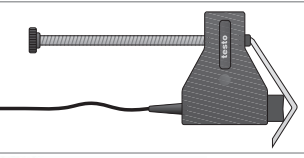
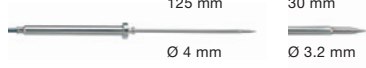
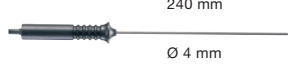
	Type T (Cu-CuNi)	Type K (NiCr-Ni)
Measuring range	-50 to +400 °C	-50 to +1000 °C
Accuracy ±1 digit	±0.5 °C (-50 to +70 °C) ±0.7 % of m.v. (+70.1 to +400 °C)	±0.5 °C (-50 to +70 °C) ±0.7 % of m.v. (+70.1 to +1000 °C)
Resolution	0.1 °C	0.1 °C

Accessories for measuring instrument

Part no.

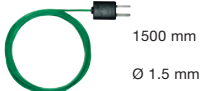
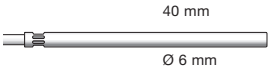
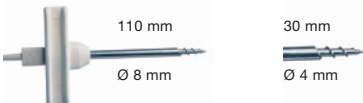
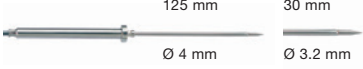
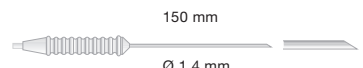
Mobile printer for data loggers testo 175/176/184	0572 0576	
Wall holder (black) with lock for testo 175	0554 1702	
Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB	0449 0047	
SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C	0554 8803	
Battery for testo 175 Range of application to -10 °C, alkali manganese microcell AAA (please order 3 batteries per logger)	0515 0009	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153	
DAkkS calibration certificate temperature temp. data logger; cal. points -20°C; 0°C; +60°C; per channel/instrument	0520 0261	

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
Probes Type K					
Immersion tip, flexible, TC Type K	 Ø 1.5 mm 500 mm	-200 to +1000 °C	Class 1 ¹⁾	5 s	0602 5792
Immersion tip, flexible, TC Type K	 Ø 1.5 mm 500 mm	-200 to +40 °C	Class 3 ¹⁾	5 s	0602 5793
Immersion measurement tip, flexible, for measurements in air/exhaust gases (not suitable for measurements in smelters), TC Type K	 Ø 3 mm 1000 mm	-200 to +1300 °C	Class 1 ¹⁾	4 s	0602 5693
Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K, Fixed cable	 35 mm Ø 20 mm	-50 to +170 °C	Class 2 ¹⁾	150 s	0602 4792
Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K, Fixed cable	 75 mm Ø 21 mm	-50 to +400 °C	Class 2 ¹⁾		0602 4892
Pipe wrap probe with velcro strip; for temperature measurement on pipes with diameter up to max. 120 mm; Tmax. +120 °C; TC Type K, Fixed cable 1.5 m	 395 mm 20 mm	-50 to +120 °C	Class 1 ¹⁾	90 s	0628 0020
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term up to +280 °C, TC Type K, Fixed cable 1.2 m		-60 to +130 °C	Class 2 ¹⁾	5 s	0602 4592
Clamp probe for measurements on pipes, pipe diameter 15 to 25 mm (max. 1"), meas. range short-term up to +130°C, TC Type K, Fixed cable		-50 to +100 °C	Class 2 ¹⁾	5 s	0602 4692
Waterproof food probe made of stainless steel (IP65), TC Type K, Fixed cable	 125 mm Ø 4 mm 30 mm Ø 3.2 mm	-60 to +400 °C	Class 2 ¹⁾	7 s	0602 2292
Waterproof robust immersion/penetration probe with metal protection hose Tmax +230°C, e.g. for monitoring temp. in cooking oil, T/C Type K, Fixed cable	 240 mm Ø 4 mm	-50 to +230 °C	Class 1 ¹⁾	15 s	0628 1292
Thermocouple with TC adapter, flexible, 800 mm long, fibre glass, TC Type K	 800 mm Ø 1.5 mm	-50 to +400 °C	Class 2 ¹⁾	5 s	0602 0644
Thermocouple with TC adapter, flexible, length 1500 mm, fibreglass, TC Type K	 1500 mm Ø 1.5 mm	-50 to +400 °C	Class 2 ¹⁾	5 s	0602 0645

1) According to standard EN 60584-2, 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).

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
Probes Type K					
Thermocouple with TC adapter, flexible, 1500 mm long, PTFE, TC Type K		-50 to +250 °C	Class 2 ¹⁾	5 s	0602 0646
Stationary probe with stainless steel sleeve, TC Type K, Fixed cable 1.9 m		-50 to +205 °C	Class 2 ¹⁾	20 s	0628 7533
Flexible, low-mass immersion measurement tip, ideal for measurements in small volumes such as petri dishes, or for surface measurements (e.g. attached with adhesive tape), TC Type K, 2 m, FEP insulated thermal wire, temperature proof up to 200 °C, oval wire with dimensions: 2.2 mm x 1.4 mm		-200 to +1000 °C	Class 1 ¹⁾	1 s	0602 0493
Probes Type T					
Frozen food probe, corkscrew design, T/C Type T, Plug-in cable		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range) ²⁾	8 s	0603 3292
Stainless steel food probe (IP67), with FEP cable to +200 °C, TC Type T, Fixed cable		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range) ²⁾	7 s	0603 3392
Waterproof, super-quick needle probe for measurements without visible penetration hole, T/C Type T, Fixed cable		-50 to +250 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range) ²⁾	2 s	0628 0027
Flexible oven probe, Tmax +250 °C, PTFE cable		-50 to +250 °C	Class 1 ²⁾		0603 0646

1) According to standard EN 60584-2, 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).
 2) According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +350 °C (Type T).

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Subject to change without notice.

Data logger

Temperature and humidity

testo 175 H1

High level of data security

Large, easily legible display

Measurement data memory for 1 million measurement values

Up to 3 years' battery life

Data transfer via USB cable or SD card

Permanently installed external capacitive humidity sensor



°C

%RH

td

g/m³



IP54

With its long-term stable humidity sensor, the testo 175 H1 is the professional data logger for the monitoring of temperature and relative humidity in work and storage rooms. The external humidity probe (stub) stands out thanks to faster reaction times in comparison to probes installed inside the housing. Energy savings are an important topic for buildings. The free ComSoft Basic software allows fast programming of the data logger as well as easy data

analysis. The testo 175 H1 continuously records temperature and humidity values and, in addition to temperature and humidity, also shows the dewpoint in the display if required. The indoor climate is thus monitored, emphasizing the need for targeted ventilation and air exchange.

Technical data / Accessories

testo 175 H1

testo 175 H1, 2-channel temperature and humidity data logger with external humidity sensor (NTC/capacitive humidity sensor), incl. wall holder, lock, batteries and calibration protocol

Part no. 0572 1754



General technical data

Channels	2 x internal (stump)
Battery type	3 x battery type AAA or Energizer L92 AAA-size cells
Battery life	3 years (15 min. measuring cycle, +25 °C)
Operating temperature	-20 to +55 °C
Storage temperature	-20 to +55 °C
Dimensions	149 x 53 x 27 mm
Weight	130 g
Housing	ABS/PC
Protection class	IP54
Measuring rate	10 s - 24 h
Memory	1 mio. measurement values

Sensor types

	NTC	Calc. parameter t_d	Testo humid. sensor, cap.
Measuring range	-20 to +55 °C	-40 to +50 °C _{td}	0 to 100 %RH*
Accuracy ±1 digit	±0.4 °C (-20 to +55 °C)	+0.03 %RH/K	±2 %RH (2 to 98 %RH) at +25 °C
Resolution	0.1 °C		0.1 %RH

* Not for condensing atmospheres. For continuous use in high humidity (>80 %RH at ≤30 °C for >12 h, >60 %RH at >30 °C for >12 h), please contact us via our website.

Accessories

Part no.

Mobile printer for data loggers testo 175/176/184	0572 0576	
Wall holder (black) with lock for testo 175	0554 1702	
Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB	0449 0047	
SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C	0554 8803	
Battery for testo 175 Range of application to -10 °C, alkali manganese microcell AAA (please order 3 batteries per logger)	0515 0009	
Batteries for use below -10 °C, lithium batteries AAA (3 off)	0515 0042	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153	
DAkKS calibration certificate/temperature temp. data logger; cal. points -18 °C; 0 °C; +40 °C; per channel/instrument	0520 0262	
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; cal. points 11.3 %RH and 75.3 %RH at +25 °C; per channel/instrument	0520 0246	

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Subject to change without notice.

Data logger Temperature

testo 176 T1 / testo 176 T2

High data security

Highly accurate measurement with Pt100 sensor

Measurement data memory for 2 million measurement values

Up to 8 years' battery life

Data transfer via USB cable or SD card

In a metal housing and with an internal sensor for more robustness (testo 176 T1) or with a large display and two external sensor connections for a clearer overview (testo 176 T2)



When highly accurate temperature control under extreme conditions is required, the testo 176 T1 is the right choice. In the interior, a precise Pt100 sensor measures the temperature. The testo 176 T1 is excellently suited to the recording of temperatures over long periods. The metal housing is resistant to extreme mechanical influences and hard impacts, making the data logger suitable for use in industrial surroundings. The free ComSoft Basic software allows fast programming of the data logger and easy data analysis.

The testo 176 T2, with its two inputs for external Pt100 probes, is the right data logger for simultaneous measurement at two measurement sites. A reference class data logger which can also be used to calibrate other data loggers.

Like all Testo data loggers for use in the food sector, the testo 176 T1 and testo 176 T2 are tested by the ATP testing section of the TÜV Süd according to DIN EN 12830.

Technical data

testo 176 T1

testo 176 T1, 1-channel temperature logger in metal housing with highly accurate internal sensor (Pt100) incl. wall holder, lock, battery and calibration protocol

Part no. 0572 1761



testo 176 T2

testo 176 T2, 2-channel temperature logger with connections for highly accurate external sensor (Pt100) incl. wall holder, lock, battery and calibration protocol

Part no. 0572 1762



General technical data

Battery type	1 x Lithium (TL-5903)
Battery life	8 years (15 min. meas. rate, +25 °C)
Operating temperature	-35 to +70 °C
Storage temperature	-40 to +85 °C
Dimensions	103 x 63 x 33 mm
Weight	approx. 410 g (testo 176 T1) approx. 220 g (testo 176 T2)
Protection class	IP68 (testo 176 T1) IP65 (testo 176 T2)
Measuring rate	1 s to 24 h (freely selectable, for online measurement 2 s to 24 h)
Memory	2 mio. measurement values
Interface	Mini USB, SD card slot

	testo 176 T1	testo 176 T2
Sensor type	Pt100 class A	Pt100 class A
Channels	1 x internal	2 x external
Measuring range	-35 to +70 °C	-100 to +400 °C
Accuracy Instrument ±1 digit	±0.4 °C (-35 to +70 °C)	±0.2 °C (-100 to +200 °C) ±0.3 °C (+200.1 to +400 °C)
Resolution	0.01 °C	0.01 °C



Lateral connection of Mini USB cable and SD card



Probe connection at lower end of housing for two Pt100 probes (testo 176 T2 only)

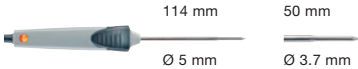
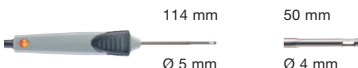


Large, clear display for showing measurement values (testo 176 T2 only)

Accessories

Accessories for measuring instrument	Part no.	
Mobile printer for data loggers testo 175/176/184	0572 0576	
Wall holder (black) for testo 176	0554 1703	
Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB	0449 0047	
SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C	0554 8803	
Battery for testo 176 -1 x TL-5903 AA cell	0515 1760	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
ISO calibration certificate temperature temperature probe; calibration points -18°C; 0°C; +40°C per channel/instrument	0520 0153	
DAkkS calibration certificate temperature temp. data logger; cal. points -20°C; 0°C; +60°C; per channel/instrument	0520 0261	

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
Pt100 probes					
Robust, waterproof Pt100 immersion/penetration probe, Fixed cable		-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) ¹⁾	12 s	0609 1273
Robust, Pt100 stainless steel food probe (IP65), Fixed cable		-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) ¹⁾	10 s	0609 2272
Penetration probe Pt100 with ribbon cable, cable length 2 m, IP 54, Fixed cable		-85 to +150 °C	Class A	35 s	0572 7001
Laboratory probe Pt100, glass-coated, exchangeable glass pipe (Duran 50), resistant to corrosive substances, Fixed cable		-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) ¹⁾	45 s 12 s Without protective glass	0609 7072
Efficient, robust air probe, Pt100, Fixed cable		-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) ¹⁾	70 s	0609 1773

¹⁾ According to standard 60751, the accuracies of Class A and B refer to -200 to +600 °C (Pt100)



Data logger Temperature

testo 176 T3 / testo 176 T4

High data security

Thermocouples Type T, Type K, Type J connectable

Simultaneous measurement at four sites

Measurement data memory for 2 million measurement values

Up to 8 years' battery life

Data transfer via USB cable or SD card

In a metal housing for more robustness (testo 176 T3) or with a large display for a clearer overview (testo 176 T4)



IP65



It is often important to check whether the prescribed temperature values in a process are really being adhered to. The testo 176 T3 in its robust metal housing is the right data logger for measuring and recording temperatures simultaneously at four different sites in industrial processes. Thanks to the broad selection of connectable thermocouple probes, the requirements of the most widely differing applications can be fulfilled.

Users of the testo 176 T4 can additionally count on a clear display which provides information on measurement values and limit value violations on site. This allows the user to obtain a quick overview without having to read out the logger on a PC. The free ComSoft Basic software allows fast programming of the data logger and easy data analysis.

Technical data / Accessories

testo 176 T3

testo 176 T3, 4-channel temperature data logger in metal housing with external sensor connection (TC Type T, Type K and Type J) incl. wall holder, lock, batteries and calibration protocol

Part no. 0572 1763



testo 176 T4

testo 176 T4, 4-channel temperature data logger with external sensor connections (TC Type T, Type K and Type J) incl. wall holder, lock, batteries and calibration protocol

Part no. 0572 1764



General technical data

Channels	4 x external
Battery type	1 x Lithium (TL-5903)
Battery life	8 years (15 min. measuring cycle, +25 °C)
Operating temperature	-20 to +70 °C
Storage temperature	-40 to +85 °C
Dimensions	103 x 63 x 33 mm
Weight	approx. 430 g (testo 176 T3) approx. 230 g (testo 176 T4)
Protection class	IP65
Measuring rate	1 s to 24 h (freely selectable, for online measurement 2 s to 24 h)
Memory	2 mio. measurement values



Lateral connection of Mini USB cable and SD card



Probe connection at lower end of housing for four thermocouple probes (Type T, K and J)

Sensor types

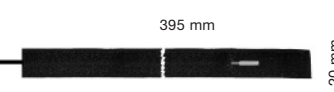
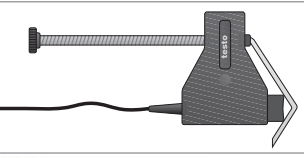
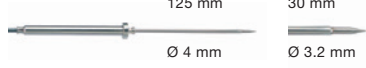
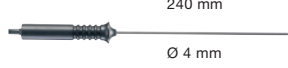
	Type T (Cu-CuNi)	Type K (NiCr-Ni)	Type J (Fe-CuNi)
Measuring range	-200 to +400 °C	-200 to +1000 °C	-100 to +750 °C
Accuracy ±1 digit	±1 % of m.v. (-200 to -100.1 °C) ±0.3 °C (-100 to +70 °C) ±0.5 % of m.v. (+70.1 to +400 °C)	±1 % of m.v. (-200 to -100.1 °C) ±0.3 °C (-100 to +70 °C) ±0.5 % of m.v. (+70.1 to +1000 °C)	±0.3 °C (-100 to +70 °C) ±0.5 % of m.v. (+70.1 to +750 °C)
Resolution	0.1 °C	0.1 °C	0.1 °C

Accessories

Part no.

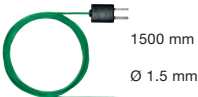
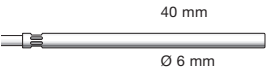
Mobile printer for data loggers testo 175/176/184	0572 0576	
Wall holder (black) for testo 176	0554 1703	
Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB	0449 0047	
SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C	0554 8803	
Battery for testo 176 - 1 x TL-5903 AA cell	0515 1760	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
Heat protection container, protects from temperatures up to +200 °C	0572 9999 Ident. no. 0699 6995/1	
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153	
DAkkS calibration certificate temperature temp. data logger; cal. points -20°C; 0°C; +60°C; per channel/instrument	0520 0261	

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
Probes Type K					
Immersion tip, flexible, TC Type K		-200 to +1000 °C	Class 1 ¹⁾	5 s	0602 5792
Immersion tip, flexible, TC Type K		-200 to +40 °C	Class 3 ¹⁾	5 s	0602 5793
Immersion measurement tip, flexible, for measurements in air/exhaust gases (not suitable for measurements in smelters), TC Type K		-200 to +1300 °C	Class 1 ¹⁾	4 s	0602 5693
Magnetic probe, adhesive force approx. 20 N, with magnets, for measurements on metal surfaces, TC Type K, Fixed cable		-50 to +170 °C	Class 2 ¹⁾	150 s	0602 4792
Magnetic probe, adhesive force approx. 10 N, with magnets, for higher temp., for measurements on metal surfaces, TC Type K, Fixed cable		-50 to +400 °C	Class 2 ¹⁾		0602 4892
Pipe wrap probe with velcro strip; for temperature measurement on pipes with diameter up to max. 120 mm; Tmax. +120 °C; TC Type K, Fixed cable 1.5 m		-50 to +120 °C	Class 1 ¹⁾	90 s	0628 0020
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term up to +280 °C, TC Type K, Fixed cable 1.2 m		-60 to +130 °C	Class 2 ¹⁾	5 s	0602 4592
Clamp probe for measurements on pipes, pipe diameter 15 to 25 mm (max. 1"), meas. range short-term up to +130°C, TC Type K, Fixed cable		-50 to +100 °C	Class 2 ¹⁾	5 s	0602 4692
Waterproof food probe made of stainless steel (IP65), TC Type K, Fixed cable		-60 to +400 °C	Class 2 ¹⁾	7 s	0602 2292
Waterproof robust immersion/penetration probe with metal protection hose Tmax +230°C, e.g. for monitoring temp. in cooking oil, T/C Type K, Fixed cable		-50 to +230 °C	Class 1 ¹⁾	15 s	0628 1292
Thermocouple with TC adapter, flexible, 800 mm long, fibre glass, TC Type K		-50 to +400 °C	Class 2 ¹⁾	5 s	0602 0644
Thermocouple with TC adapter, flexible, length 1500 mm, fibreglass, TC Type K		-50 to +400 °C	Class 2 ¹⁾	5 s	0602 0645

1) According to standard EN 60584-2, 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).

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	t ₉₉	Part no.
Probes Type K					
Thermocouple with TC adapter, flexible, 1500 mm long, PTFE, TC Type K		-50 to +250 °C	Class 2 ¹⁾	5 s	0602 0646
Stationary probe with stainless steel sleeve, TC Type K, Fixed cable 1.9 m		-50 to +205 °C	Class 2 ¹⁾	20 s	0628 7533
Flexible, low-mass immersion measurement tip, ideal for measurements in small volumes such as petri dishes, or for surface measurements (e.g. attached with adhesive tape), TC Type K, 2 m, FEP insulated thermal wire, temperature proof up to 200 °C, oval wire with dimensions: 2.2 mm x 1.4 mm		-200 to +1000 °C	Class 1 ¹⁾	1 s	0602 0493
Probes Type T					
Frozen food probe, corkscrew design, T/C Type T, Plug-in cable		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range) ²⁾	8 s	0603 3292
Stainless steel food probe (IP67), with FEP cable to +200 °C, TC Type T, Fixed cable		-50 to +350 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range) ²⁾	7 s	0603 3392
Waterproof, super-quick needle probe for measurements without visible penetration hole, T/C Type T, Fixed cable		-50 to +250 °C	±0.2 °C (-20 to +70 °C) Class 1 (remaining range) ²⁾	2 s	0628 0027
Flexible oven probe, Tmax +250 °C, PTFE cable		-50 to +250 °C	Class 1 ²⁾		0603 0646

1) According to standard EN 60584-2, 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).
 2) According to standard EN 60584-2, the accuracy of Class 1 refers to -40 to +350 °C (Type T).

0981 3924/msp/I/05.2020

Subject to change without notice.

Data logger

Temperature and humidity

testo 176 H1 / testo 176 H2

High level of data security

For two external temperature/humidity probes

Parallel measurement at two sites

Measurement data memory 2 million measurement values

Up to 8 years' battery life

Data transfer via USB cable or SD card

In metal housing for more robustness (testo 176 H2) or with a large display for a clearer overview (testo 176 H1)



IP65



When short-term measurements show no anomalies, but the ambient storage conditions still do not fulfil the desired requirements, the testo 176 H1 or testo 176 H2 is the right data logger. Both models have two connections for external temperature and humidity probes which can be positioned in a room according to individual requirements. The metal housing of the testo 176 H2 guarantees

robustness and protects from mechanical influences such as impact. This ensures a long lifetime even in rough surroundings. The clear display of the testo 176 H1, on the other hand, provides on-site information on measurement values and limit value violations. The free ComSoft Basic software allows fast programming of the data logger as well as easy data analysis.

Technical data

testo 176 H1

testo 176 H1, 4-channel temperature and humidity data logger with external sensor connections (NTC/capacitive humidity sensor) incl. wall holder, lock, battery and calibration protocol

Part no. 0572 1765



testo 176 H2

testo 176 H2, 4-channel temperature and humidity data logger in metal housing with external sensor connections (NTC/capacitive humidity sensor) incl. wall holder, lock, battery and calibration protocol

Part no. 0572 1766



Sensor type	NTC
Measuring range	-20 to +70 °C
Accuracy ±1 digit	±0.2 °C (-20 to +70 °C) ±0.4 °C (remaining range)
Resolution	0.1 °C

Sensor type	Testo humid. sensor, cap.
Measuring range	0 to 100 %RH*
Accuracy ±1 digit	dependent on selected probe
Resolution	0.1 %RH

* Not for condensing atmospheres. For continuous applications in high humidity (>80 %RH at ≤30 °C for >12 h, >60 %RH at >30 °C for >12 h), please contact us via our website.

General technical data

Channels	2 probes, 4 external channels
Battery type	1 x Lithium (TL-5903)
Battery life	8 years (15 min. measuring cycle, +25 °C)
Operating temperature	-20 to +70 °C
Storage temperature	-40 to +85 °C
Dimensions	103 x 63 x 33 mm
Weight	220 g (testo 176 H1) approx. 430 g (testo 176 H2)
EC Directive	2014/30/EU
Protection class	IP65
Measuring rate	1 s to 24 h (freely selectable, for online measurement 2 s to 24 h)
Memory	2 mio. measurement values
Interface	Mini USB, SD card slot



Lateral connection of Mini USB cable and SD card



Probe connection at lower end of housing for two temperature/humidity probes



Large, clear display for showing measurement values

Accessories

Accessories for measuring instrument	Part no.	
Mobile printer for data loggers testo 175/176/184	0572 0576	
Wall holder (black) for testo 176	0554 1703	
Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB	0449 0047	
SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C	0554 8803	
Battery for testo 176 -1 x TL-5903 AA cell	0515 1760	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
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; cal. points 11.3 %RH and 75.3 %RH at +25 °C; per channel/instrument	0520 0246	
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153	
DAkkS calibration certificate temperature temp. data logger; cal. points -20°C; 0°C; +60°C; per channel/instrument	0520 0261	

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	Part no.
Humidity/temperature probes				
Humidity/temperature probe 12 mm		-20 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 6172
Humidity/temperature probe 4 mm		0 to +40 °C 0 to 100 %RH	±0.3 °C ±2 %RH at +25 °C (2 to 98 %RH) ±0.08 %RH/K ± 1 digit	0572 6174
Plug-in humidity/temperature probe 12 mm		-30 to +50 °C 0 to 100 %RH	±0.3 °C ±2 %RH at +25 °C (2 to 98 %RH)	0572 2151
Wall surface temperature probe (connectable only to testo 176 H1)		-50 to +80 °C	±0.5 °C (-40 to -25 °C) ±0.2 °C (-25 to +80 °C)	0628 7507



Data logger

Pressure, temperature and humidity

testo 176 P1

High level of data security

Internal absolute pressure sensor and connection possibility for two external temperature/humidity probes

Parallel temperature/humidity measurement at two sites

Measurement data memory 2 million measurement values

Up to 8 years' battery life

Data transfer via USB cable or SD card



hPa

°C

%RH

td

g/m³

inch
H₂O



IP54

When ambient conditions need to be documented extremely accurately and securely, for example in a laboratory, the testo 176 P1 is the right data logger. It has an internal absolute pressure sensor and connection possibilities for two external temperature/humidity probes.

An integrated dewpoint calculation makes it universally applicable. The free ComSoft Basic software allows fast programming and easy data analysis.

Technical data / Accessories

testo 176 P1

testo 176 P1, 5-channel pressure, temperature and humidity data logger with internal sensor (absolute pressure) and external sensor connections (NTC/capacitive humidity sensor) incl. wall holder, lock, battery and calibration protocol
Part no. 0572 1767



General technical data

Channels	1 x internal, 2 probes external, 4 external channels (temperature/humidity)
Battery type	1 x Lithium (TL-5903)
Battery life	8 years (15 min. measuring cycle, +25 °C)
Operating temperature	-20 to +70 °C
Storage temperature	-40 to +85 °C
Dimensions	103 x 63 x 33 mm
Weight	230 g
Protection class	IP54
Measuring rate	1 s to 24 h (freely selectable, for online measurement 2 s to 24 h)
Memory	2 mio. measurement values
Interface	Mini USB, SD card slot

Sensor types

	NTC	Testo humid. sensor, cap.	Absolute pressure sensor
Measuring range	-20 to +70 °C	0 to 100 %RH*	600 to 1100 mbar
Accuracy ±1 digit	±0.2 °C (-20 to +70 °C) ±0.4 °C (remaining range)	dependent on probe selected	±3 mbar (0 to +50 °C)
Resolution	0.1 °C	0.1 %RH	1 mbar

* Not for condensing atmospheres. For continuous applications in high humidity (>80 %RH at ≤30 °C for >12 h, >60 %RH at >30 °C for >12 h), please contact us via our website.



Lateral connection of Mini USB cable and SD card



Probe connection at lower end of housing for two temperature/humidity probes



Large, clear display for showing measurement values

Accessories

Accessories for measuring instrument	Part no.	
Mobile printer for data loggers testo 175/176/184	0572 0576	
Wall holder (black) for testo 176	0554 1703	
Cable for connecting the data loggers testo 175 and testo 176 to the PC, Mini-USB to USB	0449 0047	
SD card - for collecting the measurement data from the data loggers testo 175 and testo 176; 2 GB; application range to -20 °C	0554 8803	
Battery for testo 176 -1 x TL-5903 AA cell	0515 1760	
ComSoft Basic, Basic software for programming and readout of Testo data loggers; graphic and tabular measurement value presentation as well as export function (free download at www.testo.com)	0572 0580	
ComSoft Professional, Pro software incl. data archiving	0554 1704	
ComSoft CFR 21 Part 11, Software for requirements according to CFR 21 Part 11 for Testo data loggers	0554 1705	
ISO calibration certificate temperature temperature probe; calibration points -18 °C; 0 °C; +40 °C per channel/instrument	0520 0153	
DAkkS calibration certificate temperature temp. data logger; cal. points -20°C; 0°C; +60°C; per channel/instrument	0520 0261	
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; cal. points 11.3 %RH and 75.3 %RH at +25 °C; per channel/instrument	0520 0246	
ISO calibration certificate pressure accuracy 0.1 to 0.6 (% of fsv), 5 points distributed over meas. range	0520 0025	
DAkkS calibration certificate/pressure diff. and pos. pressure; 11 measuring points distributed over the instr. meas. range	0520 0215	

Probes

Probe type	Dimensions Probe shaft/probe shaft tip	Measuring range	Accuracy	Part no.
Humidity/temperature probes				
Humidity/temperature probe 12 mm		-20 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 6172
Humidity/temperature probe 4 mm		0 to +40 °C 0 to 100 %RH	±0.3 °C ±2 %RH at +25 °C (2 to 98 %RH) ±0.08 %RH/K ± 1 digit	0572 6174
Plug-in humidity/temperature probe 12 mm		-30 to +50 °C 0 to 100 %RH	±0.3 °C ±2 %RH at +25 °C (2 to 98 %RH)	0572 2151
Wall surface temperature probe		-50 to +80 °C	±0.5 °C (-40 to -25 °C) ±0.2 °C (-25 to +80 °C)	0628 7507

