Be sure. testo

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



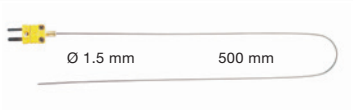
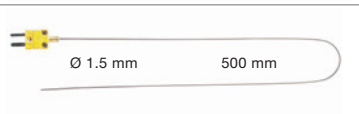
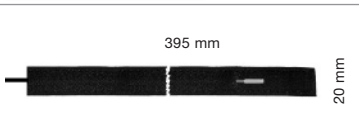
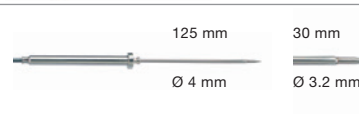
Probe connection at lower end of housing for four thermocouple probes (Type T, K and J)

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	

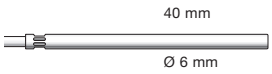
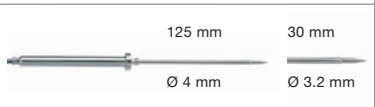
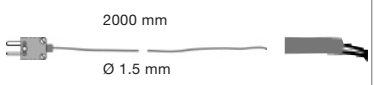
Probes

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).

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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.

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