

# 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
<b>Sensor type</b>	<b>Pt100 class A</b>	<b>Pt100 class A</b>
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 <a href="http://www.testo.com">www.testo.com</a> )	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 <sub>99</sub>	Part no.
<b>Pt100 probes</b>					
Robust, waterproof Pt100 immersion/penetration probe, Fixed cable	 114 mm 50 mm Ø 5 mm    Ø 3.7 mm	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) <sup>1)</sup>	12 s	0609 1273
Robust, Pt100 stainless steel food probe (IP65), Fixed cable	 125 mm 15 mm Ø 4 mm    Ø 3 mm	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) <sup>1)</sup>	10 s	0609 2272
Penetration probe Pt100 with ribbon cable, cable length 2 m, IP 54, Fixed cable	 60 mm 30 mm Ø 5 mm    Ø 3.6 mm	-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	 30 mm Ø 6 mm    Ø 5 mm	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) <sup>1)</sup>	45 s 12 s Without protective glass	0609 7072
Efficient, robust air probe, Pt100, Fixed cable	 114 mm 50 mm Ø 5 mm    Ø 4 mm	-50 to +400 °C	Class A (-50 to +300 °C), Class B (remaining range) <sup>1)</sup>	70 s	0609 1773

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

