

We measure it.



It's Simple.

Protect the integrity of your products and your brand during **cold chain transportation**.

NEW testo 184 data logger: Temperature monitoring and quality data documentation during the transport of foods and pharmaceutical goods.

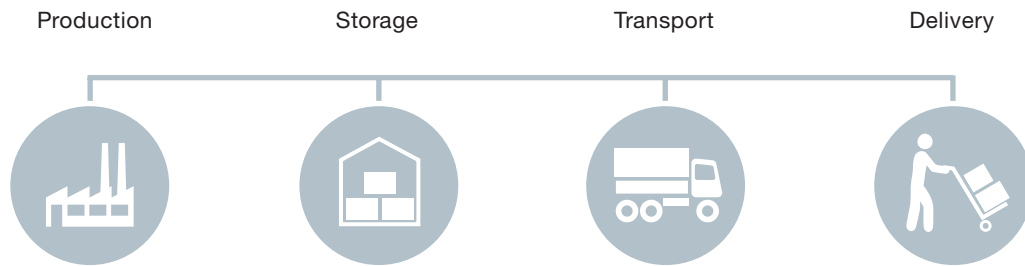
Optimum temperatures for sensitive goods.

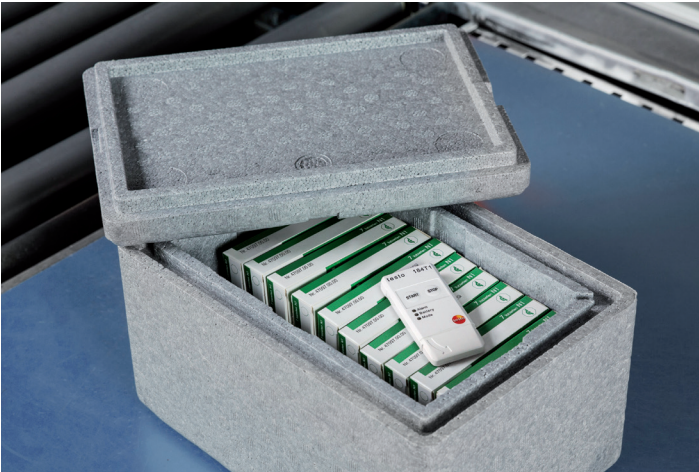
Shipping temperature and environmentally-sensitive products require a reliable logger that provides accurate data each and every time. Monitor the transport of cold chain products with the **testo 184 data loggers**.

With the testo 184 data loggers, you can monitor every step of the cold chain. The loggers travel during freight and in loading rooms, monitoring temperatures throughout the transportation of sensitive goods on the rail, in the air, or on the road.

At their destination, you can quickly confirm that the proper storage conditions have not been exceeded. To obtain detailed information, simply connect the logger to a PC, and a PDF report is immediately generated with all relevant data.

For even more efficiency and convenience, all required files and information are stored directly and securely, including: configuration file, calibration certificate, instruction manual and PDF report of your recorded data.





Temperature monitoring for pharmaceutical logistics

A visit from a GMP (Good Manufacturing Practice) inspector can be a serious issue for your company if you don't have the correct equipment. Neither insufficient refrigeration during the transport of the last delivery, nor the incomplete documentation of the temperature values in your paperwork will pass inspection. In the worst case, there is a threat of product recall, huge financial deficits and the loss of your good reputation in the pharmaceutical industry.

Or, a visit from a GMP inspector can be a breeze. With the testo 184 data loggers, all (bio-)pharmaceuticals can be protected from unnoticed gaps in the cold chain. The entire distribution process is monitored and documented simply, securely and compliantly with all common standards, guidelines and regulations:

- The temperature data loggers T1, T2, T3 and T4 are delivered with a calibration certificate traceable according to ISO 17025, which is stored as a PDF directly in the logger.
- Thanks to the use of the validatable ComSoft CFR software, 21 CFR Part 11-compliant applications with all testo 184 data loggers is possible.
- For the purposes of the analysis of stability data, the logger supports you with an automatic MKT-value calculation, and the option of setting MKT alarms.

- The comprehensive alarm management allows the setting of multiple alarm limits. It is also possible to set cumulative alarms, e.g. when the temperature may not exceed the limit value of 30 °C for longer than 30 minutes.
- The extremely intuitive operation and the easy identification of alarms lead to a low training requirement for your staff.

Temperature monitoring for food logistics

The adherence to pre-defined temperature values is of paramount significance in the transportation of food. This is the only way legal hygiene standards can be fulfilled and the quality, safety and preservation of food goods guaranteed. The precise monitoring of the complex processes and procedures is defined in the HACCP guidelines (Hazard Analysis Critical Control Points), whose purpose is the prevention of health risks in the food sector.

The testo 184 data loggers are certified by HACCP International, and critical for the monitoring of food product storage in transport from the farmer all the way to the supermarket customer. The documentation of the quality data is extremely easy thanks to the convenient readout function by an automatically generated PDF report. Temperature-sensitive foods arrive safely and your brand stays protected.

Plug and Play.

All the advantages of the testo 184 data loggers **at a glance.**



Actual size



Simple configuration - no software required

A simple, easy to follow, configuration file is on board every 184 so that no software is needed for downloads or set-up. Even different languages can be selected for shipper and receiver.



Easy operation

testo 184 is intuitively operated, and can be used without special training or previous knowledge: The "Start" button begins data recording. "Stop" ends it.



Clear indication of alarms

A glance at the display or the LEDs is enough to know whether limit values have been exceeded during transport.



Convenient readout

A PDF report with the transport data is created immediately upon connection of the testo 184 data logger to the USB port of a computer. This is suitable for long-term archiving according to PDF/A standard.



Mobile readout/printout on site

All testo 184 data loggers can be read out on-site with an NFC-capable Android smartphone. Data transfer from the data logger to a compatible Testo printer also functions wirelessly via NFC.



IT-safe

The testo 184 data loggers work securely without software installation or download, so that IT problems are triggered neither by the firewall nor a virus scanner.

ISO, GxP, CFR, HACCP and EN 12830.

The most important standards for the **transport of pharmaceuticals and foods**.

GxP-guidelines

In a GxP-regulated environment, especially high demands are placed on quality management. Not only GMP or GLP, but also GDP (Good Distribution Practice) guidelines play an increasingly important part. Since the distribution of pharmaceutical and medicinal products is nothing more than mobile storage, the same rules apply here as in production, with regard to monitoring and quality assurance. With the help of the testo 184 data logger, GxP-compliant work is no problem for you.

ISO 9001:2008

ISO 9001:2008 is the most significant international norm for quality management systems, and guarantees the framework conditions for a high level of quality-capability for products and processes. However, in connection with this, it is also indispensable to be fully informed of the professional quality assurance of the the suppliers involved in the process. Testo AG, as an ISO 9001:2008-certified company, fully complies with these requirements, and ensures the adherence to the norms through internal audits as well as accredited external audits.

FDA 21 CFR Part 11

The FDA regulation 21 CFR Part 11, on which, among others, Appendix 11 of the EU-GMP is based, makes stipulations on electronically stored documents in which electronic signatures are made. The use of the testo 184 data loggers (in combination with the validatable ComSoft CFR software) provides: Limitation of access to authorized persons, Audit Trails with time stamp, as well as electronic signatures, allowing a 21 CFR Part 11-compliant use of the data loggers.

HACCP International certification

HACCP International is a leading organization in the field of food safety, and tests products for their suitability for food environment processes according to the International HACCP guidelines. The testo 184 data loggers are certified as "food-safe" by HACCP International, and thus can be recommended without restriction for use in the HACCP environment.

EN 12830

The standard EN 12830 establishes the technical and functional properties of temperature registration instruments for transport, storage and distribution plants for chilled, frozen or deep-frozen foods and ice-cream. The transport loggers testo 184 T1, T2, T3 and T4 fulfil these requirements, and have been correspondingly certified by TÜV.



CFR ready



Safe monitoring of temperature, humidity and shock.

Overview of the **testo 184** data loggers.




















	testo 184 T1 Order No. 0572 1841	testo 184 T2 Order No. 0572 1842	testo 184 T3 Order No. 0572 1843
Measurement parameters	Temperature	Temperature	Temperature
Exchangeable battery	-	-	✓
Operating time	90 days	150 days	Unlimited
Battery life	-	-	500 days (at +77 °F and 15 min. meas. cycle)
Measuring range	-31° to 158 °F (-35° to 70 °C)	-31° to 158 °F (-35° to 70 °C)	-31° to 158 °F (-35° to 70 °C)
Resolution	0.18 °F (0.1 °C)	0.18 °F (0.1 °C)	0.18 °F (0.1 °C)
Accuracy	±0.9 °F (±0.5 °C)	±0.9 °F (±0.5 °C)	±0.9 °F (±0.5 °C)
Storage temperature	-67° to 158 °F (-55° to 70 °C)	-67° to 158 °F (-55° to 70 °C)	-67° to 158 °F (-55° to 70 °C)
Measurement rate	1 min to 24 h	1 min to 24 h	1 min to 24 h
Memory	16,000 readings	40,000 readings	40,000 readings
Protection class	IP67	IP67	IP67
Alarm identification	by LEDs	by LEDs and display	by LEDs and display
Readout via NFC	✓	✓	✓
Automatic PDF generation	✓	✓	✓
Temperature calibration certificate traceable according to ISO 17025	✓	✓	✓
EN 12830-certified	✓	✓	✓
HACCP-certified	✓	✓	✓
Compatible with testo ComSoft CFR 21 Part 11	✓	✓	✓



testo 184 T4
Order No. 0572 1844

testo 184 H1
Order No. 0572 1845

testo 184 G1
Order No. 0572 1846

testo 184 T4 Order No. 0572 1844	testo 184 H1 Order No. 0572 1845	testo 184 G1 Order No. 0572 1846
Temperature	Temperature/humidity	Temperature/humidity/shock
		
Unlimited	Unlimited	Unlimited
100 days (at -112 °F (-80 °C) and 15 min. meas. cycle)	500 days (at 77 °F (25 °C) and 15 min. meas. cycle)	120 days (at +77 °F (25 °C) and 15 min. meas. cycle)
-112° to 158 °F (-80° to 70 °C)	-4° to +158 °F (-20° to 70 °C) / 0 to 100 %RH	-4° to +158 °F (-20° to 70 °C) / 0 to 100 %RH / 0 to 10 g
0.18 °F (0.1 °C)	0.18 °F (0.1 °C) / 0.1 %RH	0.18 °F (0.1 °C) / 0.1 %RH / 0.1 g
±1.4 °F (± 0.8 °C) (-112° to -31.2 °F) (-80° to -35.1 °C) ±0.9 °F (± 0.5 °C) (-31° to 158 °F) (-35° to 70 °C)	±0.9 °F (± 0.5 °C) (32 to +158 °F) (0° to 70 °C) ±1.4 °F (± 0.8 °C) (-4 to 32 °F) (-20° to 0 °C) ±1.8 %RH + 3% of m.v. at 77 °F (25 °C) (5 to 80 %RH) ±0.03 %RH / K (0 to 140 °F) (0° to 60 °C)	±0.9 °F (± 0.5 °C) (32 to 158 °F) (0° to 70 °C) ±1.4 °F (± 0.8 °C) (-4 to 32 °F) (-20° to 0 °C) ±1.8 %RH + 3% of m.v. at 77 °F (25 °C) (5 to 80 %RH) ±0.03 %RH / K (0 to 140 °F) (0° to 60 °C) ±0.1 g + 5 % of m.v.
-112° to 158 °F (-80° to 70 °C)	-67° to 158 °F (-55° to 70 °C)	-67° to 158 °F (-55° to 70 °C)
1 min to 24 h	1 min to 24 h	1 min to 24 h
40,000 readings	64,000 readings	64,000 readings (temperature and humidity) + 1,000 readings (shock)
IP67	IP30	IP30
by LEDs	by LEDs and display	by LEDs and display
		
		
	-	-
	-	-
		
		

Ordering information

testo 184 data logger.

testo 184 T1

- Measurement parameter: Temperature
- Operating time: 90 days
- Available in packs of: 1, 10 and 50

Part no. 0572 1841



testo 184 T2

- Measurement parameter: Temperature
- Operating time: 150 days
- Available in packs of: 1, 10 and 50

Part no. 0572 1842

Wall holder
Part no. 0192 1963



testo 184 T3

- Measurement parameter: Temperature
- Operating time: unlimited
- Available in packs of: 1, 10 and 50

Part no. 0572 1843

Wall holder
Part no. 0192 1963



testo 184 T4

- Measurement parameter: Temperature
- Operating time: unlimited
- Available in packs of: 1 and 10

Part no. 0572 1844

Wall holder
Part no. 0192 1963



testo 184 H1

- Measurement parameters: Temperature and humidity
- Operating time: unlimited
- Available in packs of: 1, 10 and 50

Part no. 0572 1845

Wall holder
Part no. 0192 1963



testo 184 G1

- Measurement parameters: Temperature, humidity and shock
- Operating time: unlimited
- Available in packs of: 1

Part no. 0572 1846

Wall holder included

