We measure it. testo

testo 184 T3

Rec

4.2

°C

START   STOP

Alarm
Battery
Mode

testo

2 °C
36 °F

Blackbox for
sensitive freight.

Data logger testo 184: Temperature monitoring and quality data documentation in the transport of foods and pharmaceutical goods.
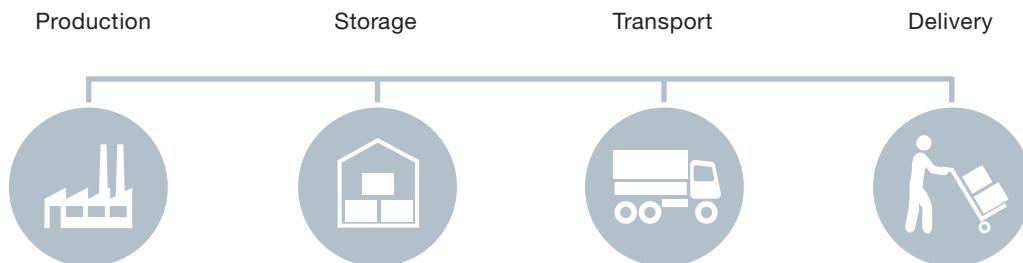
Optimum temperatures for sensitive goods.

Monitoring the transport of cold chain-mandatory products with the
data loggers testo 184.

Whether you work with foodstuffs or medicaments: Both product groups have a certain refrigeration requirement in transport, and the cold chain between the manufacturer and the final consumer may under no circumstances be interrupted. Quality deficits, financial losses or even serious damage to the health of the consumer or patient can be the consequence.

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

At their destination, your see at a glance whether the configured limit values have been adhered to. In order to obtain detailed information, it is sufficient to connect the logger to a PC – a PDF report is immediately generated with all relevant data.

In order for you to be able to work even more efficiently and conveniently with the data loggers, all required files and information are stored directly and securely in the respective testo 184: Configuration file, calibration certificate (testo 184 T1 – T4 only), instruction manual and PDF report of your recorded measurement data.

| Production | Storage | Transport | Delivery |

Temperature monitoring in pharmaceutical logistics

A visit from a GMP inspector can mean the beginning of the end for you: Neither insufficient refrigeration during the transport of the last API delivery, nor the incomplete documentation of the temperature values in your paperwork remain undiscovered. 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.

However, a visit from a GMP inspector can also mean routine for you. Because with the testo 184 data loggers, all (bio-)pharamceuticals can be protected from unnoticed gaps in the cold chain, and the entire distribution path 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.
- The temperature data loggers T1, T2, T3 and T4 are additionally pre-qualified according to PQS E06 by the WHO.
- 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 8 °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 in food logistics

The adherence to pre-defined temperature values is of paramount significance in the transport of food. This is the only way legal hygiene standards can be fulfilled and the quality, safety and preservation of foodstuffs 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 data loggers testo 184 are certified by HACCP International, and optimum for the monitoring of food product storage in transport from the farmer to the supermarket customer. The documentation of the quality data is extremely easy thanks to the convenient readout function by automatically generated PDF report. Temperature-sensitive foods arrive safely.

Plug and Play.

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

Clear indication of alarms
A glance at the display or the LEDs is enough to know whether limit values have been violated during transport.

Easiest 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.

Easiest configuration
In each testo 184, a configuration file is stored, with which the configuration of the data loggers is childsplay – no download, no installation, no user interface and no additional costs.

Convenient readout
A PDF report with the transport data is created immediately on connection of the testo 184 data logger to the USB interface 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 the virus scanner.

Original size

WHO, GxP, CFR, HACCP and EN 12830.

The most important standards for the transport of pharmaceuticals and foods at a glance.

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 data logger testo 184, GxP-compliant work is no problem for you.

WHO guidelines

In order to ensure the quality of international immunization programs, the World Health Organization (WHO) has set up guidelines to which all UN organizations and sub-organizations must adhere. In the so-called PQS (Performance, Quality, Safety) program of the WHO, particularly high demands are placed on temperature measuring instruments intended for the monitoring of medicament and vaccine transport. The testo 184 data loggers are pre-qualified according to WHO PQS E06, and correspondingly listed on the WHO website as permitted instruments.

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, among other things: 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 processes in a food environment according to the international HACCP guidelines. The data loggers testo 184 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.

Safe monitoring of
temperature, humidity and shock.

Overview of the testo 184 data loggers.

	testo 184 T1	testo 184 T2	testo 184 T3
Measurement parameters	Temperatur	Temperature	Temperature
Exchangeable battery	–	–	✅
Operating time	90 days	150 days	Unlimited
Battery life	–	–	500 days (at +25 °C and 15 min. meas. cycle)
Measuring range	-35 to +70 °C	-35 to +70 °C	-35 to +70 °C
Resolution	0.1 °C	0.1 °C	0.1 °C
Accuracy	±0.5 °C	±0.5 °C	±0.5 °C
Storage temperature	-55 to +70 °C	-55 to +70 °C	-55 to +70 °C
Measurement rate	1 min to 24 h	1 min to 24 h	1 min to 24 h
Memory	16000 readings	40000 readings	40000 readings
Protection class	IP67	IP67	IP67
Alarm identification	by LEDs	by LEDs and display	by LEDs and display
Readout via NFC	✅	✅	✅
Automatic PDF generation	✅	✅	✅
Temperatur calibration certificate traceable according to ISO 17025	✅	✅	✅
WHO permit	✅	✅	✅
EN 12830-certified	✅	✅	✅
HACCP-certified	✅	✅	✅
Compatible with testo ComSoft CFR 21 Part 11	✅	✅	✅

testo 184 T4	testo 184 H1	testo 184 G1
Temperature	Temperature/humidity	Temperatur/humidity/shock
✅	✅	✅
Unlimited	Unlimited	Unlimited
100 days (at -80 °C and 15 min. meas. cycle)	500 days (at +25 °C and 15 min. meas. cycle)	120 days (at +25 °C and 15 min. meas. cycle)
-80 to +70°C	-20 to +70 °C / 0 to 100 %RH	-20 to +70 °C / 0 to 100 %RH / 0 to 10 g
0.1 °C	0.1 °C / 0.1 %RH	0.1 °C / 0.1 %RH / 0.1 g
±0.8 °C (-80 to -35.1 °C) ±0.5 °C (-35 to +70 °C)	±0.5 °C (0 to +70 °C) ±0.8 °C (-20 to 0 °C) ±1.8 %RH + 3% of m.v. at +25 °C (5 to 80 %RH) ±0.03 %RH / K (0 to +60 °C)	±0.5 °C (0 to +70 °C) ±0.8 °C (-20 to 0 °C) ±1.8 %RH + 3% of m.v. at +25 °C (5 to 80 %RH) ±0.03 %RH / K (0 to +60 °C) ±0.1 g + 5 % of m.v.
-80 to +70 °C	-55 to +70 °C	-55 to +70 °C
1 min to 24 h	1 min to 24 h	1 min to 24 h
40000 readings	64000 readings	64000 readings (temperature and humidity) + 1000 readings (shock)
IP67	IP30	IP30
by LEDs	by LEDs and display	by LEDs and display
✅	✅	✅
✅	✅	✅
✅	–	–
✅	–	–
✅	–	–
✅	✅	✅
✅	✅	✅

Ordering information
Data logger testo 184.

testo 184 T1

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

Part no. 0572 1841   000.00 EUR

testo 184 T2

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

Part no. 0572 1842   000.00 EUR

Wall holder
Part no. 0192 1963   000.00 EUR

testo 184 T3

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

Part no. 0572 1843   000.00 EUR

Wall holder
Part no. 0192 1963   000.00 EUR

testo 184 T4

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

Part no. 0572 1844   000.00 EUR

Wall holder
Part no. 0192 1963   000.00 EUR

testo 184 H1

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

Part no. 0572 1845   000.00 EUR

Wall holder
Part no. 0192 1963   000.00 EUR

testo 184 G1

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

Part no. 0572 1846   000.00 EUR

Wall holder included

www.testo.com