Data sheet
testo 190

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CFR
data logger system

testo 190 – highly efficient validation of sterilization and freeze-drying processes





- 1-click report: full, audit-relevant documentation with just the click of a mouse
- Reduction of processing time with full compliance
- Acceptance criterion: No problem meeting "10% failure rate"
- 21 CFR Part 11-compliant software: provides both novices and experts with optimum support for measuring processes

°C

bar

Its innovative design makes the testo 190 CFR data logger system the modern solution for the validation of sterilization and freeze-drying processes. The loggers' battery can be changed quickly and safely without tools. This speeds up your processes enormously – and after the change, the loggers remain 100% tight. The system comprises four temperature loggers and one pressure logger with rigid and flexible probes, a multifunction case with integrated programming and readout units, as well as 21 CFR Part 11-compliant software.

The battery can be freely combined with all testo 190 data loggers. The user-friendly testo 190 CFR software and the special readout units in the case allow up to 8 data loggers to be read out and programmed simultaneously.

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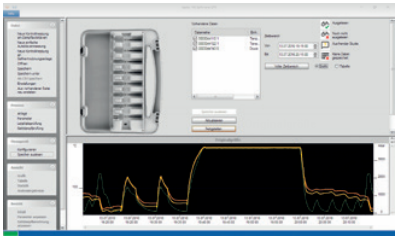
Overview of the system components



The CFR data loggers come in four temperature and one pressure models. They stand for robustness, durability and reliability. The thread means batteries can be safely changed in just a few seconds without any tools. Thanks to the logger's hermetically sealed design, it remains 100% tight even after the battery has been changed.



The multifunction case for the testo 190 completes the system. It is robust, smart and practical, not only providing storage for the data loggers, but also enabling configuration and readout. A programming and readout unit is installed in every case. This means that up to 8 data loggers can be configured and read out simultaneously.



The data loggers are programmed and read out using the intuitive testo 190 CFR software. No data export is needed for data analysis (e.g. in Excel). 1-click report means that full, audit-relevant documentation can be achieved with just one click of a mouse. 21 CFR Part 11-compliant of course. It is possible to read out a total of up to 254 loggers in one validation process.

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Ordering data

testo 190-T1

testo 190-T1, CFR temperature data logger, including battery and adapter for testo 190 programming and readout unit.

Order no. 0572 1901



testo 190-T2

testo 190-T2, CFR temperature data logger, including battery and adapter for testo 190 programming and readout unit.

Order no. 0572 1902



testo 190-T3

testo 190-T3, CFR temperature data logger, including battery and adapter for testo 190 programming and readout unit.

Order no. 0572 1903



testo 190-T4

testo 190-T4, CFR temperature data logger, including battery, adapter for testo 190 programming and readout unit and thread extension.

Order no. 0572 1904



testo 190-P1

testo 190-P1, CFR pressure data logger, including battery.

Order no. 0572 1900



testo 190 CFR software

21 CFR Part 11-compliant software for configuration and readout of testo 190 data loggers.
System requirements: Windows 7 (32/64 bit), Windows 8, Windows 10.

Order no. 0554 1901



testo 190 small case

testo 190 small case, case for transport, storage, configuration and readout of testo 190 CFR data loggers. Including USB cable and 1 programming and readout unit for a maximum of 8 data loggers.
Dimensions: 340 x 265 x 60 mm.

Order no. 0516 1901



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Technical data / accessories

CFR data loggers	testo 190-T1	testo 190-T2	testo 190-T3	testo 190-T4	testo 190-P1
Measurement parameter / probe type	Temperature (Pt1000)				Pressure (piezoresistive sensor)
Measuring range	-50 to +140°C				1 mbar to 4 bar abs.
Accuracy	±0,2 °C (-50 to -40 °C) ±0,1 °C (-40 to +140 °C)				± 20 mbar
Resolution	0.01°C				1 mbar
Reading memory	60,000 readings			30,000 per channel	60,000 readings
Measuring cycle	1 s to 24 h				
Operating temperature/ operating pressure	-50 to +140 °C 1 mbar to 4 bar				0 to +140 °C 1 mbar to 4 bar
Storage temperature	-20 to +50°C				
Dimensions					
Logger with battery	20 x 59 mm (Ø x H)		20 x 63 mm (Ø x H)	20 x 72 mm (Ø x H)	22 x 83 mm (Ø x H)
Probe shaft	3 x 25 mm	3 x 115 mm	1.5 x 775 mm		–
Probe shaft tip	–		3 x 25 mm		–
Battery					
Battery type	½ AA lithium				
Service life	750 operating hours (measuring cycle 10 seconds at 121°C)				
Application range	-50 to +140°C				

testo 190 accessories	Order no.
testo 190 small case, case for transport, storage, configuration and readout of testo 190 CFR data loggers. Including USB cable and 1 programming and readout unit for a maximum of 8 data loggers. Dimensions: 340 x 265 x 60 mm.	0516 1901
testo 190 battery, PEEK coated. For the power supply of all testo 190 models. Application range: -50 to +140°C.	0515 1901
testo 190 freeze-drying probe holder (puck) for more precise measurement of surface temperature with the testo 190-T3 and testo 190-T4.	0554 1907
Retaining clamps (5 off), to secure the loggers (testo 190-T1/-T2/-T3/-T4) in the application areas (e.g. in autoclaves).	0554 0297
Distance adapters short to secure the testo 190-T4 data logger in the programming and readout unit.	0554 0298
Distance adapters long to secure the testo 190-T1, testo 190-T2 and testo 190-T3 data loggers in the programming and readout unit.	0554 0299
ISO temperature calibration certificate (testo 190-T1/-T2/-T3/-T4), calibration points -50°C; 0°C; +90°C; +121°C; +140°C	0520 0141
DAkkS temperature calibration certificate (testo 190-T1/-T2/-T3/-T4), calibration points -50°C; 0°C; +90°C; +121°C; +140°C	0520 0281
ISO pressure calibration certificate (testo 190-P1), calibration points 200 / 1400 / 2600 / 3800 / 5000 mbar	0520 0025
DAkkS pressure calibration certificate (testo 190-P1), calibration points 200 / 800 / 1400 / 2000 / 2600 / 3200 / 3800 / 4400 / 5000 mbar	0520 0215
GMP compliant IQ /OQ documentation (Basic Package, Guided Service Package or Full Service Package selectable)	0520 9726

1981 0254/TT/10.2025

Subject to change, including technical modifications.

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