

testo 190 - validation data logger system

Highly efficient validation of critical controlled temperature units, autoclave sterilization, and freeze-drying processes

1-click report: full, audit-relevant documentation with just the click of a mouse

Best-in-class processing time with full compliance

Multifunctional case & interchangeable batteries: Optimize the entire validation process

21 CFR Part 11-compliant software



Its innovative design makes the testo 190 CFR data logger system the modern solution for the validation of critical controlled temperature units, autoclave sterilization, and freeze-drying processes. The loggers' batteries 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 offers 5 different models total. 4 models of temperate loggers and 1 pressure logger, with

rigid and flexible probes, two multifunction cases available in different sizes with integrated programming and readout units, as well as 21 CFR Part 11-compliant software.

The size of the data loggers can be varied by two different battery types. The battery types 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.

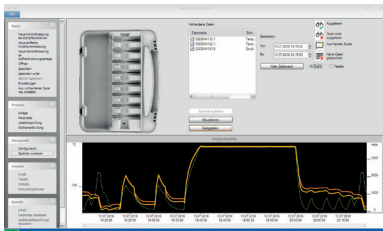
Overview of the system components



The 190 data loggers come in four temperature models and one pressure model. The loggers are robust, durable, and reliable. The threaded design of the logger allows batteries to be safely changed in just a few seconds, without any tools. Thanks to the sealed design, it remains 100% airtight even after the battery has been changed.



The multifunction cases are available in two sizes and are used for programming and readout of the loggers, as well as for storage and secure transport. Both cases serve as the programming and readout unit where up to 8 data loggers can be simultaneously read out and configured. The large case has holding mechanisms for up to 32 loggers and up to 25 batteries, along with extra storage space for accessories. This makes transport convenient and the on-site validation process easier.



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

Ordering information

testo 190-T1

CFR temperature data logger
with short, rigid probe

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

Order no. 0572 1901



testo 190-T2

CFR temperature data logger
with long, rigid probe

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

Order no. 0572 1902



testo 190-T3

CFR temperature data logger
with long, flexible probe

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

Order no. 0572 1903



testo 190-T4

CFR temperature data logger
with two long, flexible probes

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

Order no. 0572 1904



testo 190-P1

CFR pressure data logger

testo 190-P1, CFR pressure data logger,
including large 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 for 32 and 64 bit operation:
Windows 7 (32/64 bit), Windows 8,
Windows 8.1, 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



testo 190 large case

testo 190 large 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.

With storage space for up to 32 data
loggers, 25 batteries and additional
accessories.

Dimensions: 518 x 398 x 155 mm

Order no. 0516 1902



Technical data / accessories

190 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 to 4,000 mbar abs.
Accuracy	±0.1°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				
Storage temperature	-20 to +50°C				
Housing material	Stainless Steel 316L/WNR. 1.4404/SUS 316L				
Dimensions					
Logger with small battery	20 x 40 mm (Ø x H)		20 x 45 mm (Ø x H)	20 x 53 mm (Ø x H)	22 x 64 mm (Ø x H)
Logger with large 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 large (standard)					
Battery type	½ AA lithium				
Battery housing material	PEEK				
Service life	2,500 operating hours (measuring cycle 10 seconds at 121°C)				
Application range	-50 to +140°C				
Battery small (option)					
Battery type	2 x button cell lithium				
Battery housing material	PEEK				
Service life	250 operating hours (measuring cycle 10 seconds at 121°C)				
Application range	-20 to +140°C				
testo 190 accessories					
testo 190 small battery, PEEK coated. For the power supply of all testo 190 models. Application range: -20 to +140°C.					0515 1900
testo 190 large 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

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Subject to change, including technical modifications.