

## “Proving you produce safe food – the efficient way with the testo 191 data logging system”

In order to ensure security in food production, high requirements from the food sector have to be met. More often than not, a cabled system is currently required to provide proof of adherence to these requirements. When using these systems, Excel lists for complex calculations are frequently used as standard-compliant documentation.

The testo 191 HACCP data logger system is the intelligent solution for the monitoring and documentation of the temperature curve in freeze-drying processes. The smart all-in-one solution, comprising hardware, software and service, enables you to monitor production processes more efficiently and optimize them sustainably. This means you reliably adhere to quality standards and save time and money.

### The solution



### What makes testo 191 perfect for your requirements?

The data loggers for temperature are made of stainless steel and robust polyether ether ketone (PEEK). Both materials are food safe, and both the loggers and software are HACCP International certified.

Due to their small design, the data loggers can be used without any problems even in systems with little space and in small tubular bags, jars or cans. Flexible measurement probes with a length of up to 775 mm enable measurement between products or in other gaps in a system which are difficult to monitor. The size of the data loggers can also be varied by the use of two batteries of differing heights, which can be freely combined with all data loggers.

The measuring range of the data loggers goes from -50 to +140°C or 1 mbar to 4 bar abs. The probes of the models are rigid or flexible and differ in length (rigid: 25 mm and 115 mm, flexible: 775 mm). The data loggers' battery and the measuring technology are contained in two separate housings. The screw cap enables both battery types to be quickly and easily changed without any tools at all. And after the battery change, the loggers remain 100% tight.



**Equipped for every challenge: testo 191 in use.**



Temperature measurement in a can.  
testo 191-T1 + stand.



Temperature measurement directly in the food.  
testo 191-T1.



Temperature measurement in a can/bottle with the logger fitted externally.  
testo 191-T2 +can and bottle attachment.



Measurement of ambient temperature:  
testo 191-T1 + retaining clamp and cable tie (cable tie may not be included in the scope of delivery).



Temperature measurement in particularly deep cans/ bottles.  
testo 191-T13 + can and bottle attachment.



Temperature and pressure measurement for sterilization in autoclaves:  
testo 191-T1 + testo 191-P1.



Depending on the application, you can vary the size of the logger through our flexible battery concept.



Temperature measurement in freeze-drying:  
testo 191-T3/T4 + freeze-drying probe holder.

## More advantages for you

### Save time

- No preparation time is needed for measurements with the testo 191 data loggers (e.g. for cable bushings or sealing).
- The data loggers' batteries can be changed quickly and securely.
- You can simultaneously programme and read out up to eight data loggers in the multifunction case.
- The intuitive software and the 1-click report save you time when evaluating and documenting the measurement data.

### Measure more efficiently

- Equipped for every measuring task: the intelligent battery concept means you can adjust the logger size to the space available.
- The long, flexible probes of the testo 191-T3/-T4 measure even in difficult-to-access areas.
- Using the testo 191-T4, you can take two readings or measure temperature differences with just one logger.

### Rely on your equipment

- The innovative design of the data loggers ensures 100% tightness after the battery is changed.
- High-quality materials and the innovative construction make the testo 191 data loggers particularly robust and durable

**The testo 191 data loggers all passed our extreme tests with flying colours. For you as a user, that means you can be assured:**

- That the testo 191 data loggers are able to withstand without any problems even extreme demands such as those occurring in freeze-drying or in the overkill procedure.
- That the testo 191 data loggers only need to be calibrated once a year.
- That the innovative and user-friendly battery concept of the testo 191 data loggers has easily passed the battery stress test – officially confirmed by the Fraunhofer Institute.



## More information

You can get further information and answers to all your questions concerning temperature and pressure monitoring for sterilization and pasteurization from our experts.

**Testo South Africa (Pty) Ltd**

Tel +27 11 380 8060 | +27 21 300 3260

Email: [info@testo.co.za](mailto:info@testo.co.za)

Website: [www.testo.co.za](http://www.testo.co.za)