

# FOOD AND BEVERAGES



SOLUTIONS FOR STERILIZATION,  
PASTEURIZATION, COOKING AND  
CHILLING MONITORING





# We deliver data

TECNOSOFT, was founded in 1989, as a research and development company specialized in technical-scientific fields, acquisition systems data and solutions for many different sectors including pharmaceutical, medical, healthcare and food.

30 years of experience have helped us develop extensive knowledge of the problems related to the process control aspects when designing solutions for the collection and analysis of data in various areas and food is the first sector in which we have begun to propose systems branded TECNOSOFT.

Thanks to its flexibility and its continuous

updating Tecnosoft manages to grasp quickly user needs and turn them into new systems or existing solutions updates, as well as being able to customize them according to different needs.

TECNOSOFT's Advisory Team is capable to guide the customer in the choice of the right solution for every application, in addition to provide a full service such as short and long term rentals and assistance after-sales.

Since 2002 TECNOSOFT has implemented an ISO first certified quality system 9001: 2000 and now 9001: 2015, passing through the 9001: 2008.

## Regulatory Compatibility

TECNOSOFT systems comply with industry standards and international guidelines.

<b>UNI EN 285</b>	Sterilization - Steam sterilizers - Large sterilizers
<b>HACCP</b>	Hazard analysis and critical control points
<b>FDA 21 CFR Part 11</b>	US FDA Regulations for Electronic Registration Systems
<b>BRC</b>	British Retail Consortium - Regulations of the British Retail Consortium

# Application fields for process monitoring



The range of TECNOSOFT temperature, pressure and humidity data loggers, is suitable for multiple application:










- Beverages, canned food and jams pasteurization processes,
- Canned food in tins, cans and jars sterilization processes
- Autoclaves monitoring
- Retorts monitoring
- Monitoring of fresh filled pasta
- Pasta and grains drying processes
- Cooking processes
- Bakery
- Cooling processes
- Ovens
- Smokehouses

Their design, the AISI316L stainless steel material and the IP68 degree of protection make them extremely versatile.



# The Data Loggers: Temperature, Pressure and Humidity

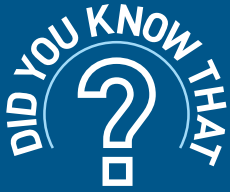
All Loggers are supplied with a traceable Accredia calibration certificate and the battery is user replaceable.

	SterilDisk	MicroW S	MicroW L	MicroW XL	S-Radio	PressureDisk	RHTemp L	RHTemp XL
	17,4 mm	14 mm	39 mm	64 mm	76 mm	43,22 mm	46 mm	71 mm
$\varnothing$	36,5 mm	20 mm	20 mm	20 mm	30 mm	35 mm	18 mm	18 mm
<b>Probe</b>	No probe Rigid Flexible	Rigid Flexible Bendable	Rigid Flexible Bendable	Rigid Flexible Bendable	Rigid	Radial rigid	-	-
<b>Battery autonomy</b>								



Micro series loggers are out of production since 01/01/2023 and have been substituted by MicroW series loggers.





## Good or bad microorganisms?



There are many microorganisms in nature, some are “good” and others are “bad”.

The pasteurization process reduces the level of microorganisms saving a good part of the organoleptic qualities of the product, while for sterilization the only microorganism good is the dead one; of course the organoleptic characteristics of the product are altered, but this is often the only system to obtain a shelf life of many years.

**The pasteurization process owes its name to the French chemist Louis Pasteur.**

What information does a pasteurization or sterilization operator want?

Simply, the duration and the temperature of the pasteurization or sterilization process. What is being asked is the F or P value for

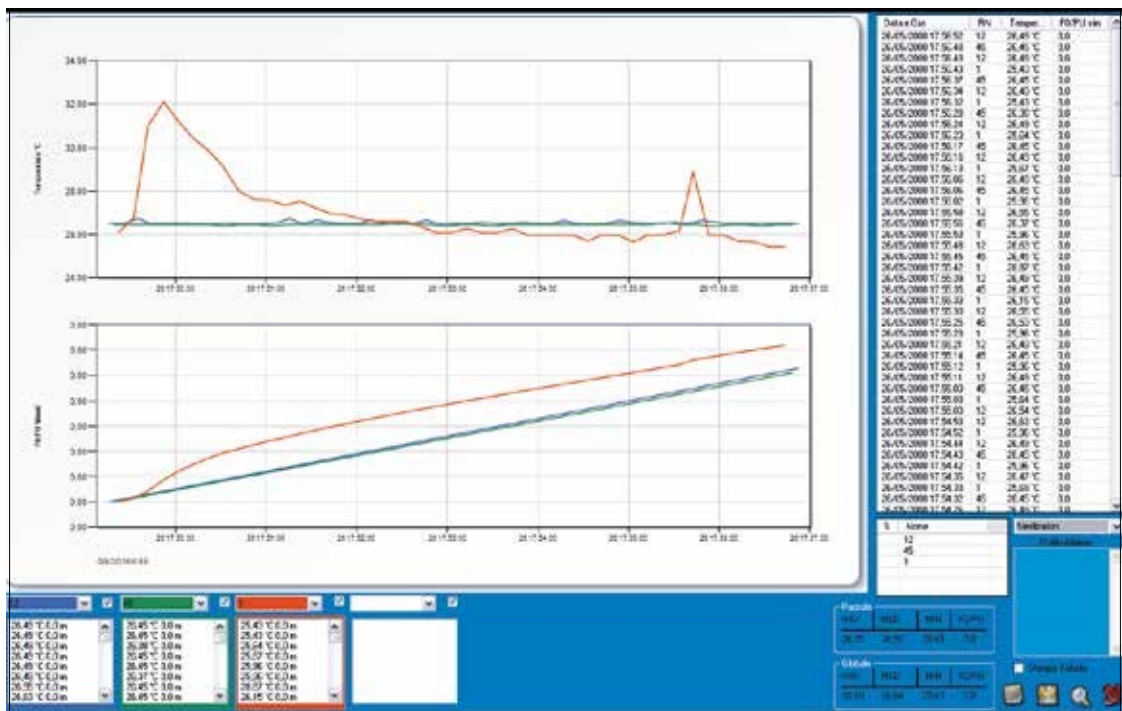
a certain temperature. In sterilization is defined a specific value of F, F<sub>0</sub>, which is the duration of the sterilization process at 121.11 °C (or 250 °F). In pasteurization we should speak of PU (Pasteurisation Units: a pasteurization unit is defined as 1 minute of product exposure at 60 °C) to a certain temperature, but F is often used indifferently. F (or P) is the value in minutes, of the duration of the pasteurization or sterilization process at a certain temperature.

# SPD: management software

SPD is the Data Logger management software for high temperatures; simple to use, intuitive and flexible.

Some features you can use with SPD:

- Set the acquisition rate
- Starting delay
- Define the duration of the mission
- View the multi-graph with more curves
- Calculate the lethality value (F0, PU, A0 etc.)
- Customize some parameters
- Print complete reports complete with graph, table, mission data, serial number of the instrument used and any notes added by the operator



It is also available the TS Manager, an Advanced validation Software for the management of temperature, humidity and pressure data loggers. It meets all the requirements of the FDA 21 regulations CFR Part 11, GAMP5, Annex 11. It is

dedicated to processes and instrumentation validations, in particular the one of autoclaves.

The software can be downloaded from the Tecnosoft web-site and works only with its hardware protection key.

# The accessories

- DiskInterface HS, connection base to the PC for programming and reading data.
- Thermal protections, for applications above 140 °C. They protect the data loggers up to 220 °C for a certain time.
- Universal opening tool for the battery change.
- Fixing system for the correct positioning of the sensor at the hot / cold point depending on the process, in closed packages.
- Fixing base, it's used to place the loggers inside vases, jars, bottles, flasks, in the open packages.



with fixing nut and rivet



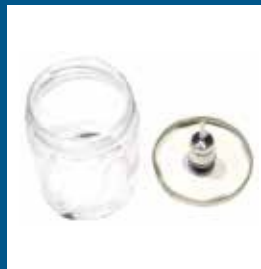
with adhesive rubber



with adhesive rubber



with fixing nut and rivet



with fixing nut and rivet



with adhesive rubber



with fixing base



with fixing nut



# What TECNOSOFT offers

Services

Calibration and ISO certificates

ISO

gf studio

Maintenance and battery change in our laboratories



Technical assistance



Rental services with certified loggers



Personalization and extra calibration points



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