

# MicroW XL Bendable Ultra Freeze



Temperature data logger from -80°C to 140°C (calibration from -40°C to 140°C) with 30 cm or on demand length bendable probe, 2 mm diameter (first and last 30 mm cannot be bent). **Battery is user replaceable** and the data logger is **provided with a Reference traceable certificate** on 9 points.

With calibration from -40°C it can be used also at -80°C with an accuracy within  $\pm 0,5$  °C within range -80 °C ÷ -40 °C. If -80°C is requested to be on the certificate, an extra calibration point for very low temperatures must be purchased. It is particularly indicated for monitoring and **validation of ultra freezers**.

Note: if used below -30°C, battery life will be highly reduced. Mission max duration at -80°C: 12 hours. Using the logger for long periods below -40°C will constantly reduce mission max duration. For longer missions purchase the -80°C special battery for S-MicroW XL Ultra Freeze. With -80°C special battery mission max duration at -80°C with the special battery: more than 2 months. Using the logger for long periods below -40°C will constantly reduce mission max duration. Max temperature of use of the -80°C battery is 80°C: REMOVE IT AND USE STANDARD BATTERY TO USE THE LOGGER IN AUTOCLAVE OR ABOVE 80°C.



## Applications



Validation



Sterilisation



Pharmaceutical



Healthcare



Medical



Cosmetics



Laboratories



Food & Beverages



Pasteurisation

## Main features

- With bendable cable to place the device near the packages instead on top and with rigid probe for penetration
- Completely food grade and waterproof
- **All software calculate lethality value (F0, PU, A0 ecc.)**
- Low battery consumption for an extended battery life
- User replaceable battery (**software shows battery status**)
- Very easy to deploy in any type of package
- National Reference traceable calibration certificate included
- Available **extended calibration from -40°C to 140°C** (order extra calibration points; in case of wide calibration range the accuracy might be worse. Request the possible calibration ranges in advance)

## Plus

- Extremely high accuracy and precision: with an accuracy of  $\pm 0,1$ °C these devices can be employed in any application involving pharmaceuticals, validation, laboratory and medical field
- High accuracy even outside the calibration range
- Fast response time thanks to the 2 mm diameter probe
- Easy to use even in small and narrow places thanks to the bendable probe
- Printed reports compliant with health regulations and ISO (data are not editable in the software)

## The system

The system is made up by:

- MicroW XL Bendable Ultra Freeze temperature data logger
- DiskInterface HS or Universal Multibay
- TS Manager 3 software (compatible with the FDA 21 CFR Part 11 regulation)

## Accessories

- TS Manager 3
- Tecno Calib
- DiskInterface HS
- Universal multibay
- MicroW L/XL, S-Micro L/XL heat protection 1
- MicroW L/XL, S-Micro L/XL heat protection 2
- MicroW XL battery kit

## Technical specifications

Dimensions	64 h X 20 Ø (mm)
Probe dimensions	Probe base dimensions 3 h X 14 Ø (mm) - Bendable probe 300/on demand I X 2 Ø (mm) (first and last 30 mm cannot be bent)
Weight	61 g
Materials	Stainless steel AISI316L, PEEK, FKM (o-ring)
Temperature range	-80 °C ÷ +140 °C
Standard calibration points (temperature)	25/50/75/100/121/140°C
Extra calibration points (temperature)	Within the range -80 °C ÷ +140 °C
Temperature resolution	0,01 °C
Temperature accuracy	± 0,1 °C (within the calibration range) / ± 0,5 °C (- 80 °C ÷ -40°C without -80°C point)
Memory (n. of acquisitions)	20.224
Acquisition step	From 1 every second up, with 1 second steps
Protection degree	IP68
Battery life	+17.000.000 acquisitions at 1 second step continuously (calculated time @25°C. Battery life may be shorter if used in low temperatures)
Software&Mobile App	SPD, TS Manager
Accessories	DiskInterface HS, Multibay universale