S-MicroW XL Ultra Freeze

S-MicroW XL Ultra Freeze is an ultra low temperature data logger from -80°C to 140°C (calibration from -40°C to 140°C) with 20, 100 mm or on demand length external probe (probes cannot be switched) on a 5 mm base (base height is not counted for probe length), managed with Windows software and USB interface (DiskInterface HS, Multibay). **Battery** is **user replaceable** and the data logger is **provided with an Accredia (NIST equivalent) traceable cetificate** on 6 points.
The data logger looks like the S-MicroW XL standard but it includes a calibration from -40°C. With calibration from -40°C it can be used also at -80°C with an accuracy within ± 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**.

The other versions of the data logger are:
• S-MicroW L: with rigid probe of different lengths
• S-MicroW XL Flexible: with flexible cable probe and rigid probe at the end
• S-MicroW XL Bendable: with semi-rigi metal bendable probe and rigid probe at the end
For each version it is available the L model too, S-MicroW L Ultra Freeze, which has same diameter but a smaller battery: less battery life but reduced size.

There are also other models of high temperature data loggers, for pressure and humidity too.

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 AUTOCLVE OR ABOVE 80°C.

Applications

Validation

Sterilisation

Pharmaceutical

Healthcare

Medical

Laboratories

Food & Beverages

Pasteurisation

Main features

• With different lengths 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
• Accredia (NIST equivalent) traceable calibration certificate included **from -40°C**
• Available **extended calibration from -80°C** (order extra calibration points; in case of wide calibration range the accuracy might be worse)

Plus

• Extremely high accuracy and precision: with an accuracy of ± 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
• Save money on calibration costs with calibration from -40°C included
• High accuracy even from -80°C
• Fast response time thanks to the 3 mm diameter probe

• Printed reports compliant with health regulations and ISO (data are not editable in the software)

The system

The system is made up by:
• S-MicroW XL temperature data logger
• DiskInterface HS or Universal Multibay
• SPD software or TS Manager software (compatible with the FDA 21 CFR Part 11 regulation)

Accessories
• SPD
• TS Manager
• Tecno Calib
• DiskInterface HS
• Universal multibay
• Locking bolt
• Fastening system
• Teflon protective tube
• S-MicroW XL battery kit
• S-MicroW XL Ultra Freeze -80°C battery kit

Technical specifications

Dimensions	64 h X 20 Ø (mm)
Probe dimensions	Probe base dimensions 5 h X 14 Ø (mm) - Bendable probe 300 l X 2 Ø (mm) - Rigid probe base dimensions 5 h X 5,5 Ø (mm) - Probe 50 l X 3 Ø (mm) - Probe l on demand X 3 Ø (mm) (l on demand: min. 10 mm / max. 175 mm. For longer probes ask for quotation)
Weight	61 gr
Materials	Stainless steel AISI316L, PEEK
Temperature range	-80 °C ÷ +140 °C
Standard calibration points (temperature)	-40/-20/0/25/50/75/100/125/140°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)
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