

# -80°C temperature Smart Sensor



Smart temperature sensor for radio data logger of the DeepWave system with LoRa Wan technology, for ultra freezers starting from temperatures from -80 ° C, with Teflon cable.

The Smart Sensor contains the calibration and identification data in its electronics: so the **recalibration process is simple and quick**: just replace the sensor that is sent to you, calibrated, before the calibration expires of the one installed, without having to request the intervention of a technician on site for calibration or having to remove the data loggers from their position to send them to a calibration laboratory.

**There are no additional costs!**

All Smart Sensors are supplied with an **Accredia traceable calibration certificate included.**

## Main features

- Standard cable length (50 cm) available but different rigid stainless steel probes: 30 or 80 mm, rounded or pointed
- Using the extensions it is possible to extend the cable length
- Possibility to switch sensors and devices with no calibration loss

## Plus

- Easy recalibration: no need to uninstall the whole device for recalibration (sensor and unit), just disconnect the uncalibrated sensor and connect the calibrated one
- Time saving: you never lose a single minute of monitoring, since you receive the new calibrated sensor BEFORE unplugging the old one (that will be sent back to us)
- Easy to use: no configuration needed. The system recognizes automatically the sensors connected

## The system

Smart Sensors of temperature for -80°C are implemented in the DeepWave system and LoRa Wan radio nodes:

- DeepWave LoRa radio modules
- TSLog 21 software, 21 CFR compliant
- Receiver Helios

## Accessories

- Deimos
- Fobos
- Gea
- Moon
- Mercury
- Jupiter
- Pluto
- Neptune
- Saturn
- Helios - LoRa Gateway
- TSLog 21
- Smart Sensor / ZED IT adapter cable extensions
- Flat DeepWave Node / Smart Sensor cable extension



## Applications



Pharmaceutical



Healthcare



Laboratories



Validation



Warehouses



Cosmetics



Food & Beverages



Environment



Medical



Logistic&Transport



Industrial



Cold Chain

- LoRa Node / Smart Sensor cable extensions

## Technical specifications

Smart Sensor Dimensions	Cable 500 l X 2 Ø (mm) - Probe 30 o 80 l X 2 Ø (mm) pointed or rounded
Sensor temperature range	-80 °C ÷ +20 °C
Extra calibration points (temperature)	Within standard calibration range
Standard calibration points (temperature)	-80/-40/0/20°C
Temperature resolution	0,03 °C
Temperature accuracy	± 0,2 °C -80 °C ÷ -40 °C ± 0,1 °C -40 °C ÷ +20 °C