

Fobos



LoRa data logger for DeepWave monitoring certified and validatable system for pharmaceuticals, healthcare, medical, food&beverages, with long distance transmission, OLED display for status checking, 4-keys keypad for screen scrolling and buzzer for acoustic alarms. The external antenna allows an extended transmission range in all directions. It has 2 Smart Sensors connectors to connect any type of Smart Sensor to be chosen among the available ones (sensors are not included). The **Smart Sensors** are provided with a **national reference traceable calibration certificate** and permit a quick, economic and easy recalibration of the system without any external the intervention. Batteries are easily replaceable by the user.



Main features

- Radio module with long distance transmission (up to 3 km in open field)
- Accepts up to two Smart Sensors of temperature, humidity, differential pressure, light
- 0.91" OLED display
- External antenna to increase the distance up to 50%
- 4-buttons for screen control
- User replaceable batteries
- Accredia traceable certificate included with the Smart Sensors

Plus

- Quick installation
- Easy configuration
- Fast recalibration procedure with the Smart Sensors
- Covers long transmission distances
- Easy to read display
- Acoustic alarms for immediate intervention
- Validatable DeepWave system in pharmaceutical and medical environment

The system

Fobos is part of the DeepWave system that is made up by:

- DeepWave radio modules (Lo.Ra. nodes)
- Helios receiver (Lo.Ra. gateway)
- TSLog 21 software

Accessories

- TSLog 21
- Helios - LoRa Gateway
- Surface Support for DeepWave Node
- Wall Mounting support for DeepWave Node
- Temperature Smart Sensor
- -80°C temperature Smart Sensor
- 200 temperature Smart Sensor
- Temperature Smart Sensor with thin cable
- Temperature and humidity Smart Sensor

Applications



Pharmaceutical



Healthcare



Cosmetics



Medical



Cold Chain



Warehouses



Environment



Food & Beverages



Validation



Laboratories



Constructions

- Differential Pressure Smart Sensor
- Light Smart Sensor (On/Off)
- Temperature Smart Sensor with internal sensor
- Smart Sensor / ZED IT adapter cable extensions
- Flat DeepWave Node / Smart Sensor cable extension
- LoRa Node / Smart Sensor cable extensions

Technical specifications

Dimensions	146.6 X 88 X 33 (mm)
Weight	280 g
Materials	ABS, Rubber
Sensors	2 X Smart Sensor inputs
Temperature range	-20 °C + +50 °C
Memory (n. of acquisitions)	16.383
Acquisition step	From 1 minute up (in steps of 1 minute)
Display size	0,91" 22,4 x 5,7 (mm) (128 x 32 pixel)
Display and functions	Current values, Alarms, Diagnostics, Radio Signal Strength
Alarms	Local (acoustic)
Functions	Data recording, transmission, alarm
Communication	Radio
Protocollo Radio	Lo.Ra.
Frequenza	868 MHz
Antennae	External
Battery type	3 AA 1,5 V batteries
Battery life	18 months with 15 minutes transmission step
Protection degree	IP65
Software&Mobile App	TSLog 21
Regulation compatibility	CE, ROHS
Regulation compatibility	FDA 21 CFR Part 11, Annex 11, GAMP 5