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 recaslibration of the system without any external the intervention. Batteries are easily replaceable by the user.

Applications

Pharmaceutical

Healthcare

Cosmetics

Medical

Cold Chain

Warehouses

Environment

Food & Beverages

Validation

Laboratories

Constructions

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 (LoRa nodes)
- Helios receiver (LoRa 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
- 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	151.6 X 88 x 33 (mm) (with connectors) / 146.6 X 88 X 33 (mm) (without connectors)
Weight	280 g
Materials	ABS, Rubber
Sensors	2 X Smart Sensor inputs
Temperature range	-20 °C ÷ +50 °C (non condensing)
Memory (n. of acquisitions)	16.383
Acquisition step	From one every 5 minutes 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	LoRa
Available frequencies	868 MHz, 915 MHz, 920 MHz, 923-2 MHz
Antennae	External
Battery type	3 X AA 1,5 V batteries
Battery life	12 months with 15 minutes transmission step and 2 sensors connected
Protection degree	IP65
Software&Mobile App	TSLog 21
Regulation compatibility	CE, ROHS
Regulation compatibility	FDA 21 CFR Part 11, Annex 11, GAMP 5