

Mercury



Mercury radio module of the LoRa DeepWave system: large ePaper screen (same as the one of ebooks), 2 connectors for Smart Sensor chosen from those available (temperature, humidity, differential pressure, light), local sound alarms via buzzer. The **Smart Sensors** (not included) are supplied with an **ISO calibration certificate** and allow fast, economic and easy recalibration of the whole system, without external intervention. Mercury mounts an external antenna also. DeepWave solution is based on the Lo.Ra. (Long Range) radio protocol which allows transmission over very long distance and requires only one Helios receiver to cover all nodes. Batteries are easily replaceable by the user.



Main features

- Lora radio module for long distances transmission (up to 3 km in open field)
- Supports up to two Smart Sensors of temperature, humidity, differential pressure, light
- 2.9" wide ePaper display
- External antenna included
- 4-buttons for screen control
- User replaceable batteries
- Certificate traceable to a national standard included with the Smart Sensors

Plus

- Easy to install and configure
- Quick recalibration with the Smart Sensors
- With the external antenna you increase the transmission by 50%
- Wide and low energy display
- Local alarm for immediate intervention
- Covers long transmission distances
- Validatable DeepWave LoRa system in pharmaceutical and healthcare environment

The system

Temperature, humidity, differential pressure DeepWave system made up by:

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

Applications



Healthcare



Cosmetics



Pharmaceutical



Medical



Cold Chain



Warehouses



Environment



Food & Beverages



Laboratories



Constructions



Validation

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 | 159.6 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 | |
| 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 |