Gea



Gea is the flagship radio module of the DeepWave system: it has a large ePaper display (like the one from ebooks), 2 inputs for Smart Sensor chosen from those available (temperature, humidity, differential pressure, light), local acoustic alarms via buzzer. The **Smart Sensors** (not included) are supplied with an **Accredia traceable calibration certificate** and allow easy, economic and quick recalibration of the system, without the intervention of external technicians. The DeepWave system is based on the Lo.Ra radio protocol (Long Range) which allows transmission over very long distances and generally to have only one Helios receiver to cover all sensors. Batteries are easily replaceable by the user.



Main features

- Lora Wan 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" ePaper display
- 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
- Covers long transmission distances
- Clear and functional display
- Local alarm for immediate intervention
- Validatable DeepWave LoRa system in pharmaceutical and healthcare environment

The system

DeepWave is a temperature, humidity, differential pressure system made up by:

- DeepWave radio modules (LoRa nodes)
- Helios receiver (LoRa gateway)
- TSLog 21 software

Applications

Healthcare

Pharmaceutical

Cosmetics

Medical

Warehouses

Cold Chain

Environment

Food & Beverages

Laboratories

Constructions

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	
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	Internal
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

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