



IOT Product Line

LoRaWAN™ Overturning Road Signal Sensor ORS-1



ORS-1 is a specialized sensor to detect fallen road signs commonly used in road works. It is ideally suited to improve road safety for workers and drivers.

The sensor enables real time detection of fallen road sign over LoRaWAN™ network with up to 15Km radius range from gateway. Completely waterproof, it will last 10 years on battery.

The sensor can easily be attached on the back of road sign by using an internal magnet or brackets. A very low power accelerometer measures static position in real time, detecting changes from its vertical position.

It can be connected to long-range public or private LoRaWAN networks, including ProEsys gateways and Network Server. The sensor includes a LoRaWAN™ compliant protocol stack, allowing the user to focus on its application and not on protocol details.

The ORS-1 sensor can be optionally equipped with low power GPS for geolocation of road sign.

FEATURES

Industrial Grade

Totally waterproof, can be installed in any part of network. Battery life up to 10 years.

Easy installation

Magnetic attachment or by brackets.

Easy programming

All parameters, including alarm thresholds and transmission intervals can easily be programmed over LoRaWAN network.

APPLICATIONS

- Critical Infrastructure monitoring
- Asset Tracking
- Road sign monitoring
- Improvement of road safety
- Smart Cities

SPECIFICATIONS

Main Control Unit	STM32™ Cortex®-M0+
Power supply	Up to 10 years life using LiSoCl2 non-rechargeable battery
Position sensor	Standard version includes low power accelerometer. GPS position sensor on request
LoRaWAN™ RF Module	Semtech® chip based
Operational RF Interface	863 -- 870 MHz
Supported protocol	LoRaWAN™ 1.0
Max TX Power	+14 dBm ERP
Average power consumption	210 µW max
Antenna connection	Standard version includes internal antenna. External antenna on request.
Status indicator	Power, Radio connection, Battery status
Environmental resistance/Operating temperature	IP67 / -30 to + 70 °C
Power On/off	By external activation with magnet. Totally sealed
Dimensions/Weight	Box 130 x 90 x 40mm / 0.3 Kg

Specifications subject to change without notice



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