

## TS 310

### EN 12830-compliant wireless temperature sensor for cold chain applications.

Reduce installation costs and deploy with minimal disruption.



ORBCOMM's TS 310 wireless temperature sensor meets the industry's latest and highest standards for the transport, storage and distribution of temperature-sensitive goods, while overcoming the high implementation costs and inflexible deployment of wired sensors.

Compatible with ORBCOMM's RT 8000 series of cold chain monitoring and temperature recording devices, the sensor provides both general cargo area temperature and multi-zone monitoring in refrigerated trailers and trucks, independent of the refrigeration unit.

#### EN 12830

Ensure that temperatures are accurately maintained at specific levels and recorded for continuous control, verification and validation. The TS 310 complies with Europe's EN 12830 standard which specifies the technical and functional characteristics of temperature recorders for the transport, storage and distribution of temperature-sensitive goods.

#### Hassle-free installation and maintenance

Reduce installation costs and time to operation with wireless deployment. Eliminate the need to repair wires damaged by day-to-day operations. Maintain the flexibility to reposition or move from vehicle to vehicle, making wireless deployment ideal for large fleets.

#### Reliable connectivity

Using advanced Bluetooth BLE 5.1 technology to retrieve data, sensors can be placed in multiple compartments of the trailer to achieve more precise temperature monitoring. Low operational costs make wireless sensors economical to run.

#### Ruggedised

The IP69k-rated TS 310 is built to withstand harsh operating environments that include severe operating temperatures, dust, humidity, water, shock and vibration, including high pressure spraydowns when deep cleaning cargo areas.

#### Long service life

The long lifetime internal battery delivers a minimum life expectancy of 5 years without the need for maintenance or replacement.

**Wireless temperature monitoring**

**Easy installation for rapid mass deployment**

**Connects to RT 8000 series devices**

**Ruggedised, versatile and accurate**

**Easy configuration with dedicated mobile app**

**Long battery life**

**Compatibility**

- RT 8000/8110/8120
- Euroscan MX2 (with AG 400)
- GT 1200 series
- ST 9100 series

**Environmental \***

- Operating Temperature: -40 °C to +85 °C
- Dust and water ingress: IP69k
- Vibration: SAE J1455
- Shock: MIL-STD-810H

**Accuracy**

- $\pm 0.5$  °C from -40 °C to 85 °C

**Communications**

- Bluetooth Low Energy (BLE) version 5.1
- Low power, short range protocol using 2.4GHz band

**Power**

- Lithium battery with 1000 mAh capacity
- A minimum life expectancy of 5 years

**Certification and compliance \***

- EN12830:2018 (Class 0.5)<sup>1</sup>
- CE Mark RED 2014/53/EU
- FCC regulation 47 CFR 15
- Industry Canada:
  - » ICES-003
- RoHS
- WELMEC 7.2<sup>1</sup>
- GAMP 5<sup>1</sup>

<sup>1</sup>: When used in combination with the Euroscan MX2

**Mechanical**

- Dimensions: 136 mm x 64 mm x 21 mm
- Weight: 120 g

**Ordering Codes**

Part Numbers:

- Device: ST100643-002
- Optional mounting bracket: ST101451-001

\* Pending

*Although we strive to ensure accuracy in all of our published specifications, actual field performance can vary depending on a variety of environmental, installation and usage factors, as well as third-party factors such as cellular providers. The specifications listed are approximations, and do not constitute binding statements or modify the terms and conditions of purchase or lease including, but not limited to, product operational limitations and warranties. All specifications are subject to change without notice. Please check [www.orbcomm.com](http://www.orbcomm.com) to ensure you have the latest version of these specifications.*

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