

sensohive



Orbit K

Wireless temperature sensor with type K thermocouple connector

The wireless temperature sensor measures the temperature internally and externally using a type K thermocouple (bought separately).

By using the industry standard type K thermocouple, the sensor can measure temperatures within the range of -270 to +1260 °C depending on the thermocouple.

The sensor transmits data using the Sigfox-network, so you do not have to make any local installation of Wi-Fi, gateways/masterbox or similar setup.

www.sensohive.com/sensors/orbitk

Date: 27-09-2018 // Version: 1.3.2 // English

Information in this datasheet is based on specifications believed correct at the time of publication. The right is reserved to make changes as design and general improvements are introduced.

Features

- No use of local gateway or installations
- ± 0.3 °C accuracy (internal)
- Touch functionality
- Long battery lifetime
- Robust design

Advantages

- Easy installation and activation
- Versatile use
- Maintenance free
- Low total cost of ownership
- Globally connected ¹

Configuration Options

The Orbit K Sensor comes preconfigured with default settings. The Orbit K will as standard measure every 10 min. and transmit data to the cloud every 10 min.

These settings will be possible to change through the Sensohive App. The sensor will update the settings at least once a week in auto-mode or force updated through tapping 4 times on the sensor. Then the sensor will enter an update mode, where all settings will be updated to the settings you have set in the Sensohive App for the specific sensor.

Through the Sensohive App it is possible to change following settings:

- Sample rate
- Transmitting rate
- Warning zone
- Alarm zone

¹Global connection refers to the area covered by Sigfox. Local requirements, legislation, and infrastructures can affect the network availability. Updated outdoor coverage: www.sigfox.com

Specifications

Sensors	Temperature (Internal) Temperature (external) Accelerometer, 3-axis
Tolerances	± 0.3 °C ²
Resolution	0.015
Measurement Range	-270 to 1260 °C (external) ³
Operating Temperature	-30 to 50 °C
Operating Humidity	0 to 95% RH
Measurement Interval	Every 10 min (adjustable)
Transmission Interval	Every 10 min (adjustable)
Battery Type	Li-SOCl ₂ , not replaceable 3.6 V 5.400 mAh
Battery Lifetime	Up to 10 years ⁴
Tap Functionality	Yes
Network	Sigfox
Radio Zones	RC1, RC2, RC4 ⁵
Material Enclosure	ABS plastic (FDA approved)
Dimensions	75 x 26 mm (Ø x H)
Weight	88g
Certifications	CE Sigfox Ready, Class 0 (Best) Radio Equipment Directive (RED) RoHS

²The tolerance of the external temperature sensor depends on the type K thermocouple in use. Standard are around ± 2.2 °C. It is possible to purchase higher quality thermocouples with better precision. For further information feel free to contact us

³Dependent on the type K thermocouple. Maximum temperature difference between device and external measurement -200 °C.

⁴Battery life depends on mode, operating temperature, and frequency of measurements and transmissions. Standard configuration gives a lifetime of 1-2 years (estimated based on tests and simulations).

⁵RC1 is Sigfox Ready certified with Class 0. RC2 and RC4 is pending certification and are currently available as samples.