

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).

The sensor can measure temperatures within the range of -200 to 1260 °C¹ using the industry standard type K 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.

sensohive.com/sensors/orbitk

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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

- ± 0.3 °C and $\pm 2\%$ RH accuracy
- Long battery lifetime²
- No use of local gateway or installations
- Robust design
- Tap functionality for manual update
- Optional: Waterproof tough box

Advantages

- Easy installation and activation
- Versatile use
- Maintenance free
- Low total cost of ownership
- Globally connected³

Configuration Options

The Orbit K is preconfigured with default settings: Data is transmitted to the cloud every 10 minutes (when a type K thermocouple is connected) and includes one measurement per transmission.

Sensohive App

You can easily access all data from your sensors using the Sensohive web application.

Sensohive App features:

- View and export data
- Setup notification alarms
- Setup radio silence alarm
- Locate device (Sigfox Geolocation)

More info: sensohive.com/app

¹ Dependent on the type K thermocouple. Maximum temperature difference between device and external measurement -200 °C.

² Requires change of transmission interval (few transmissions/day)

³ Global connection refers to the area covered by Sigfox. Local requirements, legislation, and infrastructures can affect the network availability. Updated outdoor coverage: sigfox.com

Specifications

Sensors	Temperature (Internal) Temperature (external) Accelerometer, 3-axis
Tolerances	± 0.3 °C ⁴
Resolution	0.015
Measurement Range	-200 to 1260 °C (external) ¹
Operating Temperature	-30 to 50 °C
Operating Humidity	0 to 95% RH
Transmission Interval	Every 10 min (adjustable) ⁵
Measurement Interval	Once per transmission
Battery Type	Li-SOCl ₂ , 3.6 V, 5.400 mAh (non-replaceable)
Battery Lifetime	Up to 5 years ⁶
Waterproof	No / Yes with optional tough box
Tap Functionality	Yes
Network	Sigfox
Radio Zones	RC1, RC2, RC4 ⁷
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
Data Access & Analysis	Sensohive App API

⁴ The tolerance of the external temperature sensor depends on the type K thermocouple in use. Standard are around ± 2.2 °C. We offer ready-to-use type K thermocouple wire probes, ± 1.5 °C, Class 1.

⁵ Contact us for more information on adjusting the transmission interval.

⁶ Battery life depends on mode, operating temperature, and frequency of measurements and transmissions. Standard configuration gives a lifetime of up to 1 year with thermocouple inserted 24/7. We guarantee 20.000 measurements or 12 months operation (whichever comes first).

⁷ RC1 is Sigfox Ready certified with Class 0. RC2 and RC4 is pending certification and are available as samples.