



Orbit K

Wireless Transmitter for External Temperature Monitoring



Overview

The Orbit K is a wireless transmitter for external temperature measurements and monitoring using type K thermocouples.

Install the thermocouple, connect it to the Orbit K and it will automatically start sending the temperature data continuously. Orbit K uses Sigfox, the world's largest IoT network, which offers a longer range than WiFi and Bluetooth. The data is transmitted to the cloud through nearby Sigfox antennas or gateways.

The temperature readings are available in the Web Portal. The temperature data is stored online and documentation is made easy. All happens automatically and in real-time, and you can access the data from anywhere with your smartphone or computer and set up notifications to always keep updated.

Placed in a tough box, the Orbit K is designed to also withstand harsh environments. The transmitter can be reused with any type K probe.

✔ Features

- Measure temperature at any position with any Type K sensor probe
- Long-range wireless communication
- Weather-resistant and rugged design
- Low power consumption for extended usage
- Built-in high capacity lithium batteries
- Multiple mounting slots for easy installation
- LED status indicator

👍 Benefits

- Real-time insights into temperature development
- Remote monitoring from any device with internet
- Cost-efficient temperature monitoring
- Cloud software for easy reporting and data export

Specifications

Temperature Measurements

Range	Type K thermocouple: -200 to 1260 °C (-328 to 2300 °F) ¹
Tolerance	Type K thermocouple: ±1.5 °C (±2.7 °F) ² Internal digital sensor: ±0.3 °C (±0.54 °F)
Resolution	±0.1 °C (±0.18 °F)
Thermocouples Supported	Type K (Ni-Cr / Ni-Al)

Data Transmissions

Transmission Interval	Cable connected: Once every 10 mins ³ No cable connected: Once every 6 hours Downlink: Once every week
Network	Sigfox
Radio Zones	RC1, RC7 (Sigfox Ready, Class 0) RC2, RC4
Wireless Signal Range (using Sigfox Gateway)	Up to 3 km (1.86 mi) ⁴

Use and Storage

Temperature	-30 to 50 °C (-22 to 122 °F)
Humidity	0 to 100 %RH
Ideal Storage Conditions	Indoor, 20 to 30 °C (68 to 86 °F)

Mechanical Specifications

Dimensions (L x W x H)	164 x 114 x 42 mm (6.46 x 4.49 x 1.65 in)
Weight	323 g (11.39 oz)
Materials	ABS plastic
Battery Type	Li-SOCl ₂ , 3.6 V, 5.400 mAh (non-replaceable) ⁵
Socket Type	Miniature, type K, female
LED	Single color LED
Waterproof	Yes

Certifications

CE, Radio Equipment Directive (RED), RoHS

Data Access & Analysis

Maturix® Precast
Maturix® In-situ
Sensohive App
API

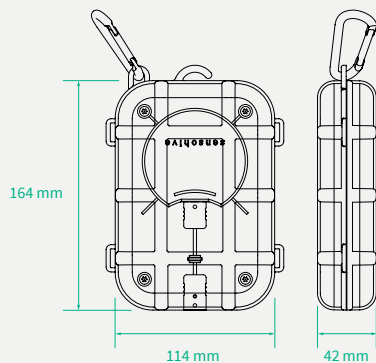
Part No.

Models

20122-1 + 32150	Orbit K (Sigfox RC1) + tough box
20122-2 + 32150	Orbit K (Sigfox RC2) + tough box
20122-4 + 32150	Orbit K (Sigfox RC4) + tough box
20122-7 + 32150	Orbit K (Sigfox RC7) + tough box

HS Code

8517 6990 00



¹Dependent on type K thermocouple. Max. temperature difference between device and thermocouple measurement is -200 °C and +1260 °C.

²The tolerance depends on the type K thermocouple. Standard tolerance is around ±2.2 °C. We offer high-quality type K thermocouple wire probes, ±1.5 °C, Class 1.

³Learn more about changing the intervals:

sensohive.com/orbit-k/transmission.

⁴Depending on environment. Learn more: sensohive.com/sigfox.

⁵Battery life depends on operating temperature and frequency of transmissions. Standard configuration gives a lifetime of up to 8 months with thermocouple inserted 24/7. We guarantee 20.000 measurements or 8 months operation (whichever comes first).