

Gaia 200

Wireless Transmitter for Maturix® Temperature and Strength Monitoring



Overview

Gaia 200 is a wireless transmitter for temperature measurements using type K thermocouples. It is the industry's most cost-efficient solution for real-time monitoring of the curing of concrete.

Install the thermocouple, connect it to the Gaia 200 and it will automatically start sending the temperature data continuously. Gaia 200 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 Maturix® Web Portal. The concrete strength is estimated based on the temperature history using the Maturity Method (ASTM C1074). All of this happens automatically and in real-time, and you can access the data from anywhere.

The rugged and weather-resistant Gaia 200 is designed to withstand the harsh environment at construction sites. The transmitter can be reused again and again as only the economical thermocouple is embedded into the concrete.

✓ Features

- Measure temperature at any position with type K thermocouples
- Long-range wireless data communication
- Weather-resistant and rugged design
- Low power consumption for extended usage
- Replaceable and universal AA batteries
- Multiple mounting slots for easy installation
- LED status indicator

👍 Benefits

- Real-time insight into the curing of concrete
- Remote monitoring from any device with internet
- Cost-efficient temperature & strength monitoring
- Cloud software for easy reporting and data export

Maturix® Temperature and Strength Monitoring

Maturix combines durable hardware, smart wireless technology and user-friendly software into a powerful concrete monitoring tool. The system provides in-depth insights into the curing status and shows real-time temperature, maturity and strength data.

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 15 mins ³ No cable connected: Once every 6 hours Downlink: Once every week
Network	Sigfox
Radio Zones	RC1, RC2
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

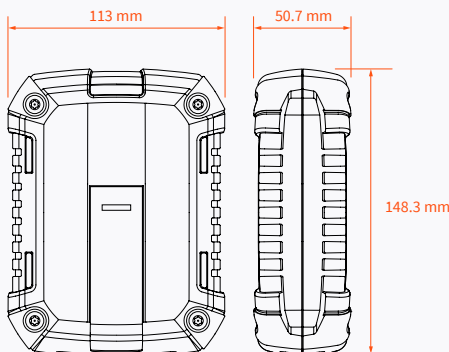
Dimensions (L x W x H)	148.3 x 113 x 50.7 mm (5.84 x 4.45 x 2 in)
Weight	560 g (19.75 oz)
Materials	Body: ASA plastic (white) Protective edge: TPU elastomer (orange)
Battery Type	4 x AA, 1.5 V alkaline/lithium or 1.2V rechargeable ⁵
Socket Type	Miniature, type K, female
LED	Multi color LED
IP Rating	IP64

Certifications CE, Radio Equipment Directive (RED), RoHS

Compatible Software Maturix® Precast
Maturix® In-situ
API

Part No.	Models
20200-1	Gaia 200 (Sigfox RC1)
20200-2	Gaia 200 (Sigfox RC2)

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.

³Learn more about changing the intervals: maturix.com/transmissions.

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

⁵Alkaline batteries included.