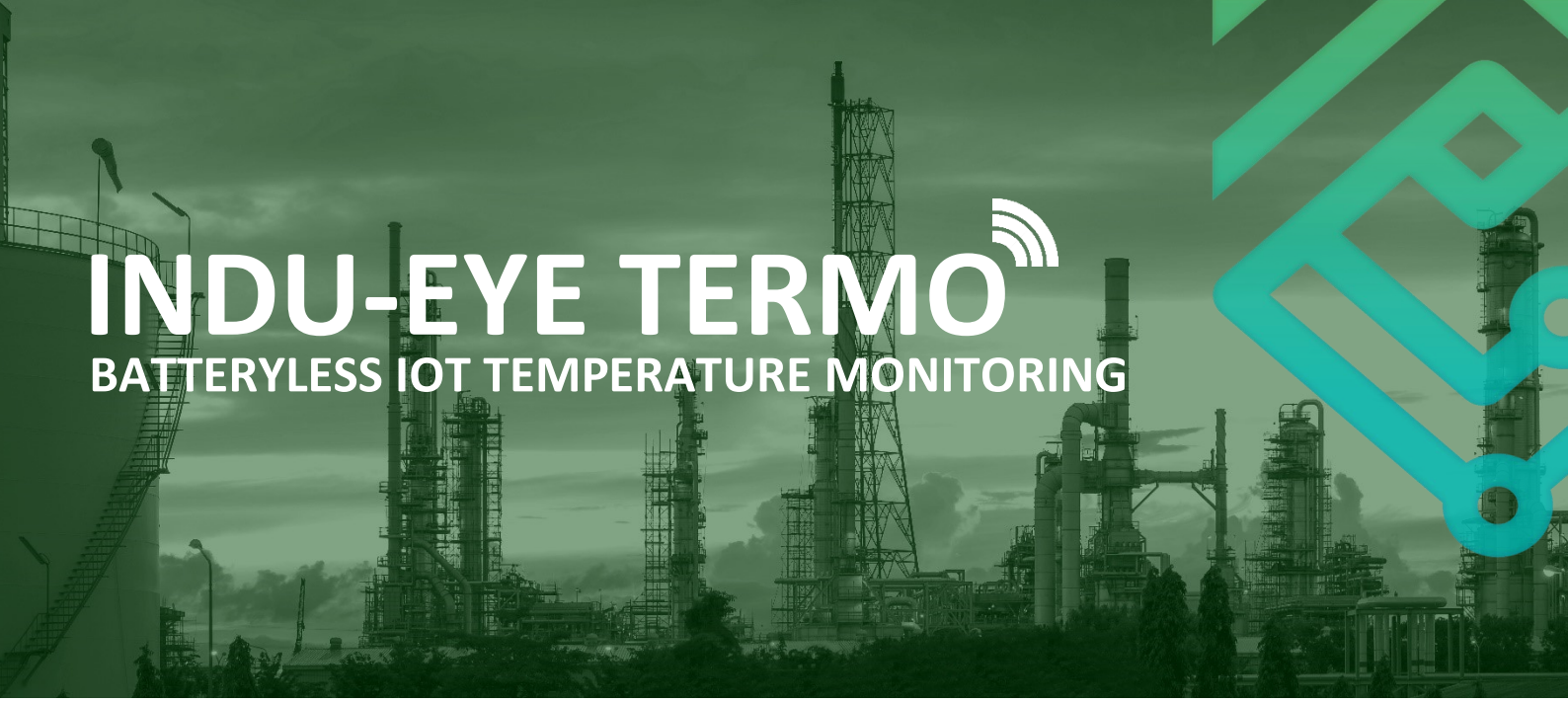


INDU-EYE TERMO

BATTERYLESS IOT TEMPERATURE MONITORING

INDU-EYE TERMO is a *batteryless* solution for temperature monitoring. Our device uses long-range wireless protocols, and is particularly designed to be used in hard-to-reach and cost prohibitive environments.

A robust, a reliable and easy-to-install *Predictive Maintenance* system allows you to remotely monitor the health of your machinery or process and predict the most optimal time for maintenance.

Keep your plant up

Detect proactively performance issues to reduce unplanned downtime.

Waste Heat powered

Batteryless means forgetting expensive battery maintenance and become eco-friendly.

Easy installation

Plug&Play installation without the need for cables. Long-range wireless protocols (>10km) require very simple infrastructure compared to low-range protocols (WirelessHART, ISA100, commonly used by competitors) that need gateways or repeaters every few meters.

Our products are fully adaptable to any type of surfaces (flat, circular, etc.).

Monitoring dashboard

Use our DAEVIS monitoring dashboard tool or any other cloud-based system: Always choose the best settings to make your decisions.

Flexible and scalable

It does not matter how many Indu-Eye devices you want to install and where, changing and growing your network is very easy!

Excellent cost savings

Compared to competitors´ wireless solutions (battery-powered), our products reduce the cost of devices, infrastructure, and other recurrent expenses up to 70%. Thanks to the edge-computing capabilities, additional cloud computing cost reductions can be up to 87%.

Unbeatable environmental savings

More than 98% of reduction in GHG, energy, heat and water during the lifetime compared to current wireless battery-powered sensors from competitors.

Improve your maintenance tasks

Automated routine operations keep maintenance professionals performing high-value tasks.

AEInnova
Alternative
Energy Innovations

INDU-EYE TERMO

Wireless and Batteryless IoT Temperature Monitoring

Description

INDU-EYE TERMO is a system consisting of three main components:

1. The industrial temperature sensor (PT100/PT1000) of 2, 3 or 4 wires.
2. The wireless IoT device with edge computing and long-range network capabilities.
3. A thermoelectric generator, capable of powering the entire system using heat.

INDU-EYE is economical, flexible, scalable and easy to maintain and install, which means that our product is the most competitive solution on the market.

Use cases

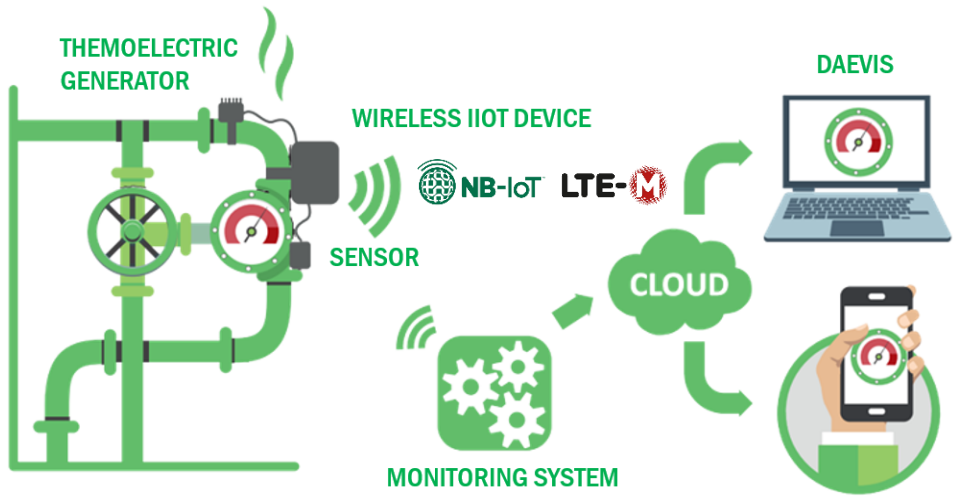
Wireless monitoring system for early detection of faults. It permits to diagnose heating and rotating equipment, check the temperature in hazardous parts in a process and test electric motors in the following machines:

- Furnaces, Kilns and boilers.
- Pipeline, steam traps.
- Drum dryers, belt press, centrifuge decanters.
- Pumps, motors, fans, compressors, and turbines.
- Centrifugal separators, blowers, agitators, expenders, and heat exchangers.
- Thermostatic filters.

AEInnova's main system components

Real use case in an iron&steel facility

NB-IoT / LTE-M network scenario



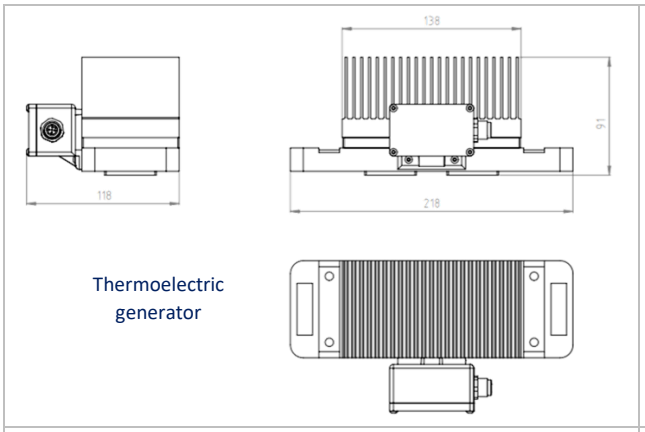
INDU-EYE TERMO

Wireless and Batteryless IoT Temperature Monitoring

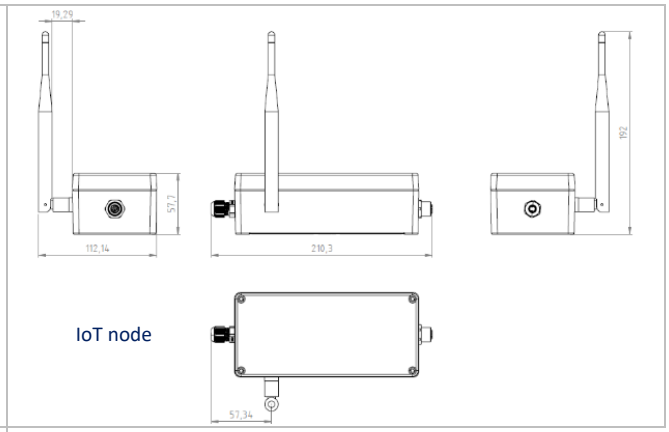
Mean features

Temperature range	−60°C to +650°C
Accuracy	According to customer sensor
Measurement temperature deviation	± 0.1ºC to ± 1ºC depending on sensor
Ambient temperature	−20°C to +50°C
Thermoelectric generator exposure temperatures	50 ºC to 150ºC
	Minimum 30ºC above ambient temperature
Communication	NB-IoT (B3, B8, B20) / LTE-M
Data update cycle (sample/hour)	From 1 to 10
Certifications	CE; FCC and ATEX/IECEX ongoing
Mount	Plain or pipe
Sensor type	PT100 and PT1000 with 2, 3 or 4 wires autodetected
Degrees of protection	IP67
Patent	Pending

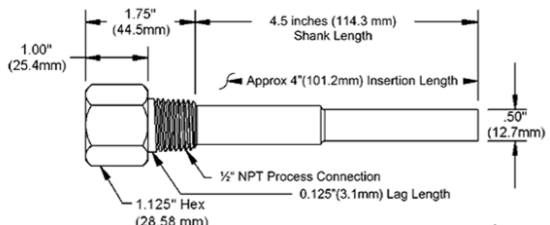
Dimensions in mm



Thermoelectric generator



IoT node



Temperature sensors (dimensions depends on the model)

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