Wireless Temperature Sensors

Industry 4.0 applications require the deployment of additional sensors in industrial plants.

Wireless sensors are easy to install or retrofit, require no cabling and can communicate from rotating or moving parts.

Neratec provides customized sensors with wireless or wired connections to build powerful monitoring systems. They support process optimization or the introduction of predictive maintenance procedures for cost reduction.
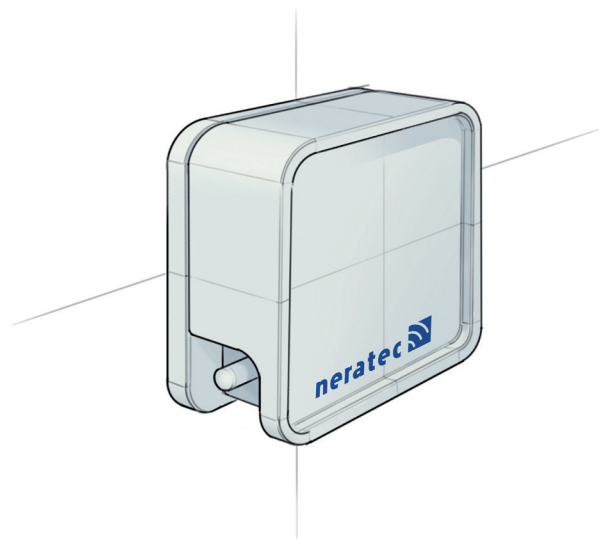
Sensor Types

Neratec provides standard sensor components and can deliver customized products for:

- Air temperature sensors
- Temperature sensors with resistive probes (PT100, PT1000) or thermocouples
- Multi-channel sensor hub, combining different sensor inputs in one device
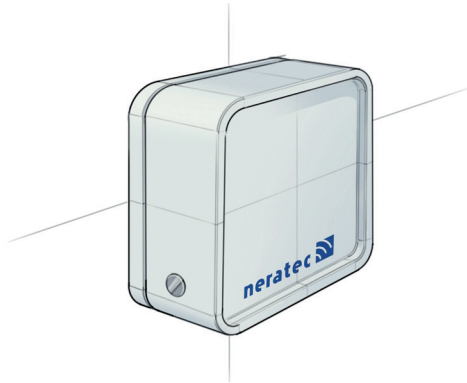- Customized sensors

System Benefits

- Neratec provides wireless sensors and matching system components
- A wireless connector is used to control the wireless sensor network – the application deals only with the sensor data
- Connecting to local IPC or server
- Gateway for IoT/Cloud connectivity
- User applications can be deployed to the gateway

Industrial Wireless Sensors -
Ease of Installation

PreciTemp: air temperature sensor

Typical characteristics

Sensor type	internal Si chip
Temp. range	-40°C... +85°C
Accuracy	±0.5K max.
Resolution	0.01K
Interval	1s ... 7200s
Logging	Optional
Calibration	field calibration possible
Battery life	1 ... 5 years

MaxTemp: with external probes

Typical characteristics

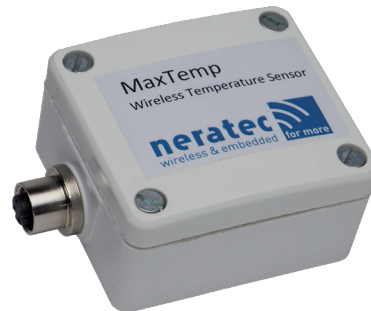|	
Sensor type	PT100/PT1000 (external probe)
Temp. range	-200°C... +200°C (probe only) -40°C... +85°C (electronics)
Accuracy	±0.1K typ. / ±0.35K max.
Resolution	0.01K
Interval	1s ... 7200s
Logging	Optional
Calibration	field calibration possible
Battery life	1 ... 5 years

CUSTOMIZED WIRELESS SENSORS

Neratec provides customized smart sensors based on customer specifications. The sensors are designed for low-power operation and can be connected wirelessly – thus being optimal for retrofit in existing equipment or for installation on moving or rotating parts.

Sensor Types

- Vibration
- Temperature
- Humidity
- Pressure
- Flow, ...

WIRELESS CONNECTOR

The wireless connector manages the wireless sensor network. It is connected to an industrial control PC or a gateway via USB and provides a simple-to-use serial protocol for system integration and data collection.