

Neuron PT100 Surface Patch

Neuron PT100 Surface Patch is perfect to measure surface temperature on objects and transmit the data to Neuron Cloud. The sensor comes with 2 meter cable between the sensor and the surface patch. The patch has adhesive on the back for easy installation.

Features

- Integrated long life battery - up to 10 years lifetime
- Continuous measurement and instant alarm
- Adjustment of parameters such as measurement frequency on request
- Define your own alarm levels in the Neuron app
- Receive alerts as push notifications, emails or SMS
- Easily connect the sensor to the system with the QR-code on the sensor. Ensures immediate and accurate registration in the app on your phone/PC/tablet
- The sensor transmits data to your nearby Neuron Gateway which then again communicates with the Neuron Cloud

Essentials

PT100 Measuring Range	-50°C to +150°C
Measuring Frequency	Every 3 sec
Report Frequency	Every 2 min, or immediately after measurement if trigger for critical data transmission is reached
Expected Operating Time*	Up to 10 years

*Depends on measurement frequency, amount of critical data transmissions and ambient temperature



Typical Applications

Surface temperature on:

- Pipes
- Electronics
- Motors and transformers

Neuron System Benefits

Sensor - Gateway - Cloud - App



- **Robust sensors**
Suitable for rough environments
- **Wireless**
Wireless sensor with integrated battery
- **Long lifetime**
Typical 10 years battery life
- **Quick installation**
Wireless, installed and operational in minutes
- **Collect and deliver data**
Data delivery through API and app
- **Broad offering**
More than 50 different sensor types available

General Description

The Neuron PT100 Surface Patch reads the surface temperature from the patch and convert it into a digital measurement.


The sensor comes with a 2-meter wire between the surface patch and the sensor.

Due to wireless transmission of the signal, it is also easy and timesaving to install.

Principle of Operation

The Neuron PT100 measures every third seconds and transmits every second minute.

Should the trigger for critical data transmission be reached between two transmissions, the sensor transmits immediately after measurement.

The symbol  on the product label refers to this data sheet for important information regarding intended use, requirements for the operating environment etc. If the equipment is used in a manner not specified by El-Watch, the protection provided by the equipment may be impaired.

Technical Specification

Operational Specification

PT100 Measuring Range	-50°C to +150°C
Resolution	0.1°C
Accuracy	0.5 °C + 0.002 x t
Measuring Frequency*	Every 3 sec
Report Frequency*	Reports every 2 min. Or immediately if trigger for critical data transmission is reached, see below
Trigger for Critical Data Transmission*	2°C change in measurement
Electronics Operating Environment	Ambient temperature: -40 - 85 °C Relative humidity: 0-100% Altitude < 2000m above sea level Pollution degree: 4
IP Grade	IP 67, wet conditions, indoor use.
Radio Frequency	863-870 MHz / 902-928 MHz
Battery Type	Li-SOCI2, 3.6V
Expected Operating Time**	Up to 10 years

* Adjustable on request

** Depends on measurement frequency, amount of critical data transmissions and ambient temperature






Physical Specification

Materials	POLYblend 65 FS / TPU
Connection Type	200 cm PFA insulated twisted wires
Dimensions LxWxH	Sensor: 37x23x14mm Patch: 37x16mm

Ordering Information

	Europe/The Middle East/Africa Part number	North America/Australia/ New Zealand Part number
PT100 Surface Patch	422337	422448

Regulatory

Certifications	Directives/Standard
 	RED 2014/53/EU Radio Equipment Regulations 2017
  Industry Canada 	FCC Part 15C
Safety	IEC 61010-1:2010

Installation

Neuron sensors are ready for use out of the box and will start logging data after registering the sensor in the app. Even though Neuron sensors deliver great range and long battery life, following some simple guidelines for mounting of the sensor and gateway can greatly improve signal coverage and lifetime of the sensor.

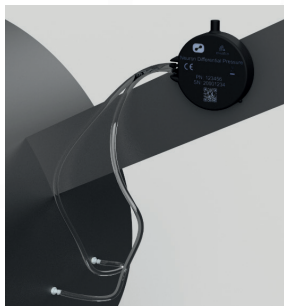
To ensure optimal antenna performance and signal strength, the sensor should be placed elevated with some distance to fixed objects. Keep in mind that RF-signals are greatly affected by close metallic surfaces.

For sensors with an external antenna, the antenna should be clear off the metallic surface.

You can find all you need to get started with Neuron Sensors at our support site: support.el-watch.com



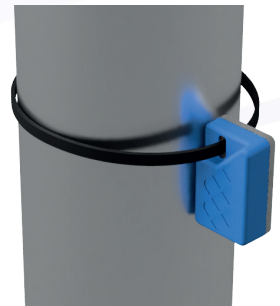
Place elevated with distance to fixed objects



Keep antenna clear off the metallic surface



Sensors with IP21 Enclosure



Sensors with IP67 Enclosure

Dimensions

