

Neuron Hour Meter Vibration

Neuron Hour Meter Vibration enables you to digitize hour counting on equipment uptime. The sensor counts elapsed time over a vibration threshold. The elapsed time is stored internally in the sensor and will work even if out of range of a gateway. When within reach of a gateway the elapsed time will be sent to Neuron Cloud.

All measurement data are easily accessible through web, mobile app, or API, allowing for seamless integration. Due to a strong magnet at the back of the sensor it is easy to install and IP67 rating means it can be used in harsh environments.



Features

- 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

Measuring Range	Elapsed time when vibration exceed 50mg
Measuring Frequency	Every 1 min
Report Frequency	Every 2 min
Expected Operating Time*	Up to 10 years

*Depends on measurement frequency and ambient temperature

Typical Applications

- Tracking equipment usage
- Uptime hours and usage-based maintenance

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 Hour Meter Vibration counts elapsed time whenever vibration levels exceed 50 mg, making it ideal for tracking operating hours on vehicles, machinery, and other equipment for maintenance and service planning purposes. Its small size and light weight, paired with its magnetic mounting, makes it a very powerful monitoring device.


The sensor provides continuous measurement and instant alarm notifications. Duplex communication allows remote adjustment of parameters such as measurement frequency. Alarm levels are easily configured in the app, and alerts can be received via CMMS integrations, Webhook, email, or SMS. A QR code on the sensor ensures quick and accurate registration within the app.

The IP67 rated device is encapsulated in polyurethane that provides protection against dust and water ingress, making it suitable for use in harsh industrial environments.

Principle of Operation

The Neuron Hour Meter Vibration sensor counts elapsed time whenever vibration levels exceed 50 mg. The accumulated operating time is stored internally, so the sensor does not need to remain within range of a gateway at all times. When the device comes within range of a gateway, the total elapsed time is automatically transmitted to the Neuron Cloud.

The sensor performs vibration measurements once every minute and transmits data every second minute.

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

Technical Specification

Operational Specification

Measuring Range*	Elapsed time when vibration exceed 50mg
Measuring Frequency*	Every 1 min
Report Frequency*	Reports every 2 min
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.
Cleaning	Wipe clean with a damp cloth
Radio Frequency	863-870 MHz / 902-928 MHz
Battery Type	Lithium Manganese Dioxide, 3.0V
Expected Operating Time**	Up to 10 years

* Adjustable on request

** Depends on measurement frequency and ambient temperature

Physical Specification

Materials	Polyurethane / Neodymium magnet
Dimensions DxH	36x26mm



Ordering Information

	Europe/The Middle East/Africa Part number	North America/Australia/New Zealand Part number
Neuron Hour Meter Vibration	422801	422802

Accessories

	Part number
Neuron Magnetic Mounting Assembly (for mounting on non-magnetic surface)	422691

Regulatory

Certifications	Directives/Standard
	RED 2014/53/EU Radio Equipment Regulations 2017
	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.

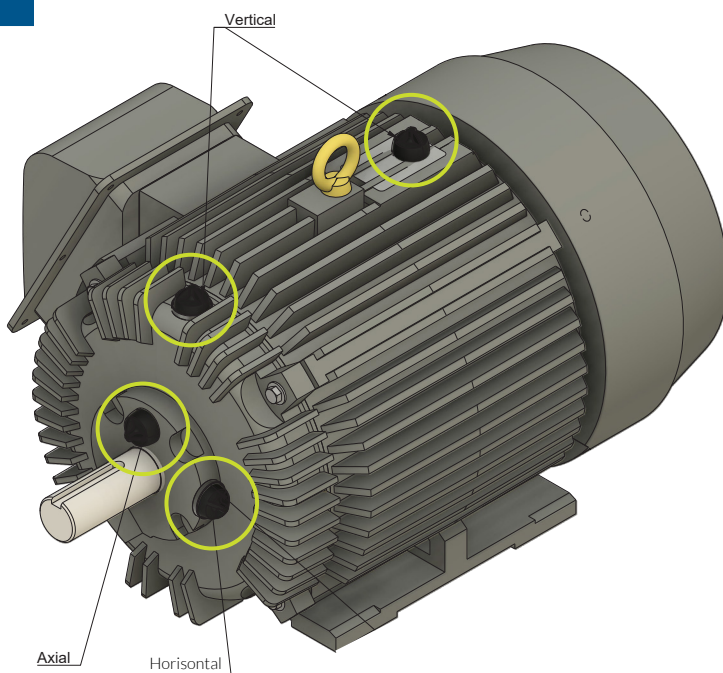
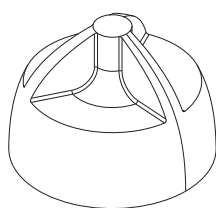
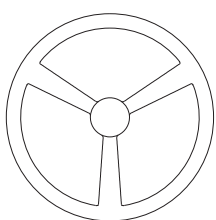
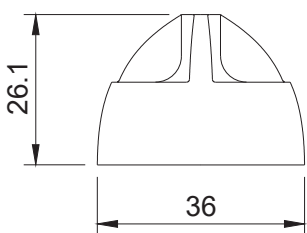
For sensors operating in environments with greatly varying temperatures, care should be taken to avoid putting the sensor in unnecessary stress. Very high or low temperatures will affect the battery life and the signal strength of the sensor. While some sensors must be close to the source of heat or cold, other sensors have external probes which allow the sensor to be placed at a distance.

Fastening

Neuron Hour Meter Vibration is fitted with a **strong magnet** at the back for easy fastening. If there is non-magnetic surface, PN 422691 Neuron Magnetic Mounting Assembly is a good solution. Epoxy glue can also be used to fasten the sensor to non-magnetic surfaces.

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

Dimensions



Neuron Magnetic Mounting Assembly

