Neuron Water Detector

Neuron Wireless Water Detector alerts when water is applied to the sensor element. The sensor is fitted with a 50 cm water detection tape with adhesive for easy fastening. Integrated battery ensures up to 10 years of battery life. All measurements are easily accessible from web, app or API.

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

Measuring Range	0 – 100%
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

- Technical room
- Under the kitchen sink
- Underneath equipment connected to water

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

When exposed to water the conductivity of the detection tape changes.

The Neuron Water Detector measure the resistance in the detection tape, and outputs a value proportional to the exposure of water.

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

Standard delivery with 50 cm detection tape. The sensor can be delivered with up to 50 meter detection tape.

Principle of Operation

The Neuron Water Detector measures the resistance in the detection tape every 3 seconds.

If the sensor detects a change in water exposure of more than 2% of measurement range since the last transmission, the sensor reports immediately. Otherwise, it reports every 2 minutes.

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

Measuring Range	0 – 100%
Resolution	0.1 %
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% change in measurement
Operating Environment	Ambient temperature: -40 - 85 ℃ 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	Li-SOCl2, 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
Detection Type	50 cm Water Detection Tape. Other lengths on request
Dimensions LxWxH	37x23x14mm

Ordering Information

	Europe/The Middle East/Africa Part number	North America/Australia/ New Zealand Part number
Neuron Water Detector	422231	422436

Regulatory

Certifications	Directives/Standard
CE UKCA	RED 2014/53/EU Radio Equipment Regulations 2017
FC ▮✲▮ 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.
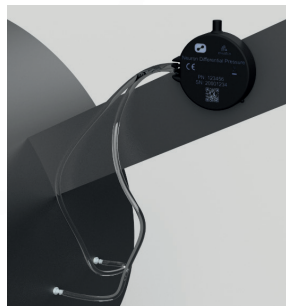
To ensure optimal antenna performance and signal strength, the sensor should be placed elevated with some distance to fixed objects. Keep in mind that RF-signals are greatly affected by close metallic surfaces.

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:
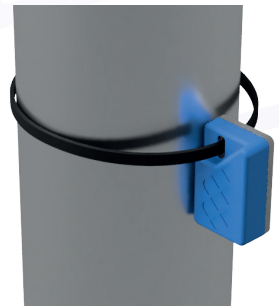support.el-watch.com »

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

The small, compact blue Neuron sensors are fitted with fastening holes for use with cable ties. The sensors are also delivered with double-sided tape that may be used for fastening of the sensors.

All the black Neuron sensors, like the Neuron IR380 and Neuron Vibration, are fitted with a strong magnet at the back for easy fastening. If there is no magnetic surface, then double-sided tape is a good solution.

Place elevated with distance to fixed objects

Keep antenna clear off the metallic surface

Sensors with IP21 Enclosure

Sensors with IP67 Enclosure

Dimensions

// PRODUCT SHEET // TECHNICAL SPECIFICATION

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Additional information about Neuron sensors, installation, userguides, and more at our support website: support.el-watch.com

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