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## [ENG] NetPing Power Quality Monitoring Sensor 1-wire 910S21

## [ENG] [910S21] Introduction

This manual will help you get acquainted with the specialities and features of the NetPing Power Quality Sensor 1-wire 910S21, get an idea of its functionality and technical characteristics and prepare the sensor for operation

## [ENG] [910S21] Limitation of Liability and Copyright

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Developer and manufacturer:

NetPing east Co Ltd.

## [ENG] [910S21] Overview and Main Features

The external view of the sensor is shown in this photograph.

The common external view:



The view from below:



The view from above:



Sensor Specifications	Values
Range of measurement of the effective value of the mains voltage	70–276 V $\pm$ 4%
AC frequency measurement	50/60 Hz $\pm$ 2%
Frequency measurement period and RMS	6 seconds
Sensor power supply	From a host device, 5 V, up to 20 mA
The number of channels which measure voltage	1 pc.
Operating Temperature Range	-30 °C...+50 °C (without moisture condensation, at normal air humidity)
Sensor dimensions	80 x 45 x 25 mm

## [ENG] [910S21] Connectors and Indications Elements

The view from above:



Sensor Indicator Modes:

- in the absence of exchange, 1W burns evenly;
- during data exchange it blinks with the frequency of requests to the sensor;
- when the sensor power is turned on, the LED blinks several times to indicate that the sensor is ready to operate.

The side view (with a power plug)



The side view (loop output)

NetPing server room environmental monitoring solutions and IP power distribution units.





## [ENG] [910S21] Installation and Connection

The power quality monitoring sensor can be mounted on a horizontal or vertical surface. There are no mounting holes.

When you install the sensor pay attention to the next restrictions:

- Do not expose the sensor to direct sunlight.
- Do not install the sensor near heat sources.
- Do not open the sensor case.
- Avoid getting liquid on the sensor particularly on the connectors.

The sequence of connection:

### STEP 1

Remove the sensor 9120S21 from its packaging. Put it onto the place you need.



### STEP 2

Connect the sensor to the 1-wire port of the device (or through an extension-splitter) to which you are connecting it.



STEP 3

Connect the sensor to the power supply.



The configuration of the sensor and notifications you can see in a description of a built-in firmware on a connected host device.

## [ENG] [910S21] Delivery Package

The delivery package consists of:

- NetPing power quality monitoring sensor 1-wire 910S21 — 1 pc.;
- a Quick Start Guide — 1 pc.;
- a power supply cable IEC320 C7 to CEE7 XVII (SL-5+SL-8), 1,8 meter — 1 pc.;
- a packing box +a sticker with the name - 1 pc.

## [ENG] [910S21] Warranty

The manufacturer guarantees normal operation of the product within 24 months from the date specified on the warranty sticker if a buyer follows operating and storage conditions. Manufacturer warranty applies only to failure of a device which occurred because of defects in manufacturing process of products and components used. If during a warranty period the manufacturer receives a notice of such defects, it will repair or exchange the product (by its own discretion). If the manufacturer is unable to repair or replace a flawed item during a period of time determined by the current legislation, the manufacturer according to a customer's wish can return the amount paid for the product at the time of purchase. The manufacturer provides a limited warranty on firmware and device configuration software. In case of detecting any errors in the software which became known to the manufacturer on its own or from a customer, the manufacturer will fix these errors within a reasonable time and provide an update for the customer. Only the errors that block normal use of the device at conditions and for performing functions described in this User Guide are a subject to mandatory fix. This warranty does not apply to cases when defects appear because of: a misuse of a device, any modifications of a device without a written permission of the manufacturer, opening up a device (a warranty sticker on the case of a device is damaged) except cases foreseen by this description; repairing by unauthorized personnel, using or storing a device out of the range of allowable temperature and humidity, pressure, a software modification, and the reasons, listed below:

- A device failed because of the problems in a public electric network, plugging a device into power supply networks with invalid parameters, absence of grounding, etc. (power fluctuations and surges, overloading, etc.);
- A device failed because of having liquid inside;
- A device failed as a result of extreme temperatures;
- A device failed because of mechanical damage;
- A device failed because of connecting a power supply unit with invalid output voltage or a defective power supply unit;
- There are foreign objects, insects, etc inside the enclosure;
- During operation a voltage bigger than an allowable voltage range by the Ethernet standard has been supplied to the ports of a device.

## [ENG] [910S21] Operating and storage conditions

The sensor is designed for continuous round-the-clock operation in closed spaces. In operating conditions the sensor is resistant to air temperature from -30°C up to +50°C (without moisture condensation, at normal humidity). The sensor should be protected from direct sunlight and moisture.

The sensor design provides reliable trouble-free operation during a long time without the necessity of special maintenance.

The storage of sensors is carried out at temperatures from -40 °C up to +70 °C.

The content of dust, vapors of acids and alkalis, corrosive gases and other harmful impurities that cause corrosion should not exceed the content of corrosive agents for type 1 atmosphere in storage rooms.

## ENG [910S21] Additional Documents and Weblinks

The page of the sensor 910S21: <http://www.netpingdevice.com/products/910s21>

Manufacturer's website: <http://www.netpingdevice.com>

Technical support contacts: <http://www.netpingdevice.com/support>

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