

## THANK YOU

Thank you for purchasing our product! We believe in your satisfaction with the product that aligns with the company philosophy of the highest care and precision. In case of interesting ideas and concepts, please contact [firvena@firvena.cz](mailto:firvena@firvena.cz)

## INSTALLATION GUIDE and OTHER DOCUMENTATION

The latest versions are available on the websites. Download the installation guide and other documentation at [www.firvena.com](http://www.firvena.com), -> SUPPORT/DOWNLOAD/EO-RP-XX-XXX.

## DESCRIPTION

This device is designed to extend the wireless signal of the EnOcean network. It is used to strengthen received telegrams with a weak signal, amplify the signal and increase the range of wireless communication. It is easy to install the repeater in suspended ceilings of buildings due to its small and compact dimensions. The repeater is equipped with an external antenna with magnetic base, so the repeater can be installed in the control cabinet and antenna outside the control cabinet. Due to the SMA-F antenna connector, other antenna designs can be used for a given frequency, depending on the area of use. Thanks to the variable power supply 24-240V AC, DC, the repeater can be easily connected to the existing electrical network in the building.



## SAFETY INFORMATION AND WARNINGS

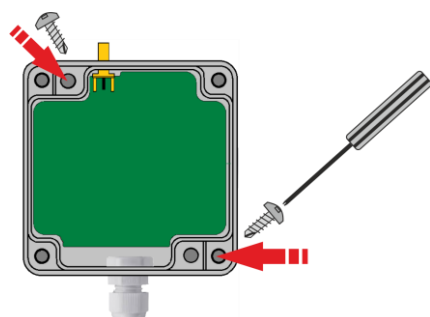


Please follow the general safety regulations. This device may only be installed by a qualified person (accredited electrician) and after reading these instructions. Improper installation can result in health, property or equipment damage.

- The device does not contain any user-replaceable or repairable components.
- Always perform installation on a switched off (dead) network, there is a risk of electric shock due to the power supply range outside the safe voltage of 50V DC and 120V AC!
- Do not connect the voltage until all wires are fully connected.

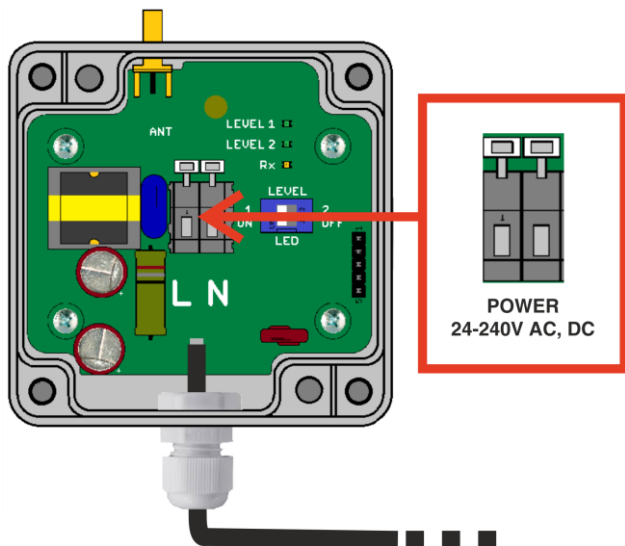
The product meets the general safety regulations. The protection Cover IP 60 allows installation only in normal, dry space. The gateway must be powered from a safe voltage source that meets the requirements for input voltage range and must be installed in accordance with national and general safety standards. Follow the safety instructions and applicable standards for the country and location of installation. The product may only be used in accordance with this manual. To avoid the risk of electrical shock or fire, the maximum operating parameters of the gateway must not be exceeded. Use only unmodified products. Only cable types with sufficient cross-section and insulation properties may be used for the connection.

## INSTALLATION INSTRUCTIONS



The lid can be removed after unscrewing the four screws in the corners of the box. The holes are then available to fix the box to a solid base using the supplied screws. The external antenna with magnetic base should be positioned to ensure good radio reception and transmission.

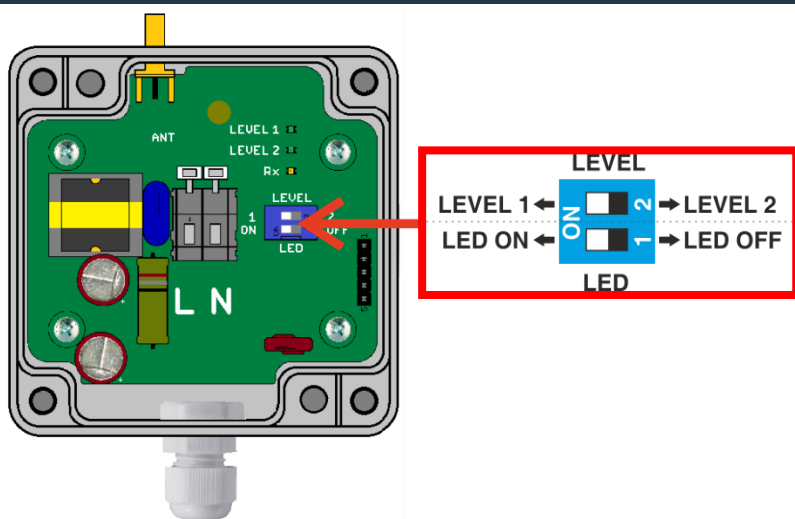
## POWER SUPPLY



The power cable is fed through the grommet and the power wires are connected to the grey terminal block. The power supply is in the range of 24-240V AC, DC.

- For 24-230V AC power, the terminal blocks are marked L and N.
- The DC connection is not polarity dependent.

## DIP SWITCH



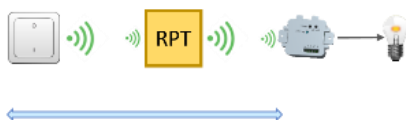
Use the DIP switch to select the mode of operation according to the following tables:

DIP 1	Function	Meaning
ON	LED ON	The LED bar indicates the status of the device
OFF	LED OFF	All LEDs are off during operation

DIP 2	Function	Meaning
ON	LEVEL 1	Repeats only the original message (it is not forwarded from another repeater)
OFF	LEVEL 2	Repeats every message, even forwarded ones, until it expires



**Level 1** – forwards only original (unrepeated) telegrams






**Level 2** – forwards both original and once repeated telegrams



## DEVICE STATUS

In order to check the function of the device, LEDs are installed under the transparent lid. If their flashing and illumination cause a disturbance, they can be switched off using a DIP switch.

### FUNCTION LED

Display	Name	Colour	Device function
<b>LEVEL 1</b> 	Level 1	Green	Forwards only original telegrams
<b>LEVEL 2</b> 	Level 2	Green	Repeats every message until it expires
<b>Rx</b> 	Rx	Yellow	Indicates the receipt of a valid message on the EnOcean network

## DELIVERY CONTENT

EnOcean Repeater, antenna SMA M for 868 MHz frequency, installation guide, 2 screws – cheese head 3.5x13.

## PRODUCT DISPOSAL



The product does not belong to municipal waste. The product must be sent for the separate waste collection with the possibility of recycling in accordance with local regulations and legislation. The product contains electronic components.

## STORAGE

The device must be stored in a temperature range 0-40 °C and a relative humidity of up to 80 %, and non-condensing spaces. Products must not be exposed to shock, harmful vapors or gases.

## REPAIRS

Products can only be repaired by the manufacturer. Products to be repaired must be packaged in a shock-absorbing, moisture and electrostatic-protecting manner that adequately protects the product from damage during shipment.





## WARRANTY

The product is warranted 24 months from the date of delivery that is mentioned on the delivery note. The manufacturer only guarantees properties and parameters that are explicitly described in the technical documentation. Claims, complaints and returns must be directed exclusively to the manufacturer. The complaint must contain the exact product identification, delivery note number and defects description. The manufacturer is not responsible for defects caused by improper storage, improper external connection, damages caused by external influences especially due to unacceptable size, incorrect adjustment, improper installation, incorrect operation or normal wear and tear.

## TECHNICAL DATA

CATEGORY	PARAMETER	VALUE
Product	Product name	EO-RP-EA-868
	Product title	Repeater EnOcean 868 MHz with external antenna
Electrical data	Supply voltage range	24–240 V AC / DC
	Rated input current	Max. 20 mA
	Wire cross-selection	0,5....2,5mm <sup>2</sup>
EnOcean	Frequency	868 MHz
	Communication	Bidirectional
	Antenna	External with magnetic base and 2 m long cable
Operating conditions	IP Code	IP60
	Operating temperature	–20°C to +70 °C
	Relative humidity	max. 80 %
Dimensions	Dimensions without antenna	75 x 105 x 45 mm (W x H x D)
Weight	Weight without antenna	140 g
Box material	Plastic	PC, ABS

## PRODUCT CONFORMITY AND CERTIFICATION

	<p><b>ROHS Directive</b></p> <p>The device is manufactured in accordance with the directive 2015/863/EU (RoHS 3) of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.</p>
	<p><b>EMC - Declaration of Conformity</b></p> <p>The device is compliant with the directive 2014/53/EU (making available of radio equipment directive, 2014/30/EU and harmonised standards emissions EN 61326-1 ED.3 and immunity.</p> <p>Approvals tests ČSN EN 55032, ČSN EN 55035, ČSN EN 6100-4-2, ČSN EN 6100-4-3, ČSN EN 6100-4-4, ČSN EN 6100-4-5, ČSN EN 6100-4-6, ČSN EN 6100-4-11, ČSN EN IEC 6100-6-2.</p>
	<p><b>UK Conformity Assessed (UKCA)</b></p> <p>The device is compliant with the British Legislation UK Conformity Assessed (UKCA) and meets all relevant requirements.</p>
	<p><b>EnOcean Technology</b></p> <p>The device is fully compatible with the EnOcean radio protocol and as such is certified by the EnOcean Alliance Level 2.</p>