



ENcontrol

INSTALLATION AND USER GUIDE

**Measure and switching
module into socket
SP-MS-ZAS**

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1 Introduction

Dear Customer,

Thank you for your trust and for buying this device.

The purpose of using the device

The device combines switching and measuring features – it can switch and measure any one-phase appliance which is connected into common socket. For example it can be baking oven, fridge, HiFi set, PC, etc. The device has a persistent memory, which stores the last device state, and any value after a power failure (unplugging from socket). It uses optimized communication module and a bistable relay guaranteeing minimum self-consumption.

This product has demonstrated compliance with the relevant European standards and regulations on radio parameters, safety and electromagnetic compatibility, declarations and documents are stored by the manufacturer. To keep the meter in good condition and to ensure its safe operation, you need to have these instructions read and observe all instructions and safety regulations that are in this manual listed.

The device measuring power consumption has not been officially calibrated and therefore is not suitable for the purpose of invoicing.

This manual is part of this product. It contains important instructions for commissioning and to operate it. If you postpone the product to someone else, be careful to give this guide to him/her as well. Keep these instructions so you can read it again anytime!

Another way of using this device, other than mentioned here in after, could lead to damage or destruction. Among other things,

this could be associated with the danger of short circuit, electric shock, etc. The product must not be changed or altered by a user!

Follow strictly the safety rules listed in this manual!

2 Safety instructions

If the device is damaged by non-following of this manual, the warranty is limited! We are not responsible for consequential damages that resulted from it. We are not responsible for property damage, personal injury caused by improper handling or failure to comply with the following safety regulations.

- This device is no toy and therefore should not be given into the hands of small children in any case!
- Be careful not to disconnect protection wire (contact), because there is a danger for health or life in the case of some malfunction of the device.
- The device **SP-MS-ZAS** can be connected into net socket 230 VAC / 50 Hz \pm 10 % only, which is equipped by protection contact according to actual legislative.
- Maximal power input of switched appliances connected to this device must not exceed 3600 W (16A).
- Recommended operating temperature range should be between + 10 ° C and + 40 ° C.
- Do not use this device opened.
- Do not use this device in wet areas and in the environment (in areas) where there are flammable gases, vapors and chemical solvents dust.
- Never touch this device with wet hands. If you clean this unit, disconnect it from the power input first.
- Do not insert into the unit any needles, pins or nails, metal or other conductive objects.
- In industrial areas is necessary to follow the accident inhibitions relating to electrical equipment and operating devices. In schools, learning institutions and amateur

workshops should be controlled handling measurement instruments by responsible professional staff.

- Please, note that the device cannot be safely used if the device shows visible damage, the device does not work, and if the device has been stored for a long time in unsuitable conditions, or subjected to severe stress during transport.
- Never connect the device immediately after transfer from cold to warm environment. Condensed water, which can appear, can under certain circumstances destroy this device. Leave the unit turned off until its temperature compares with the ambient (room).
- Do not use this device near strong electrostatic fields (TV screen, computer monitor, ...) as it may lead to partial or complete disruption of radio communications.

3 Basic characteristics of the device

- Measuring consumption and other electric values of connected appliance
- Switching connected appliance
- Wireless communication with the central unit
- Passive operation – reacting to signals from central unit
- Relay switching in output socket
- Maximal direct switching current 16A
- Measurement of active work consumed, effective power, effective current, effective voltage, peak current, peak voltage
- Resetting meter from central unit
- Power input directly from input socket
- The safety switch on/off after a certain time (eg 10 minutes, 1 hour, 24 hours)
- Contactless measurement of AC current
- Intelligent measurement module supports calibration

4 Setting device into operation

1. Plug the device into socket. The LED should start to blink in the rhythm of approximately 3 times per second. After the successful establishment of communication the blinking slows down.
2. Plug the appliance into the output socket of the device. Do not connect the appliance with a higher current input than allowed by the device (up to 3600 Watts).

5 Maintenance and cleaning

- Perform regular inspections of the device to ensure there is no damage. Do not use a damaged unit. If some repair is needed, please contact your dealer who will provide repair service in an authorized office.
- If this unit should be cleaned, then, firstly unplug it from a socket. For cleaning purposes use only dry and soft anti-static cloth without any cleaning chemicals. This device can never be submerged in water or other liquid.

6 Additional information on using the device

Device activity is indicated by one LED located at the upper right corner of the case. The light has the following meaning:

LED	Meaning
5x per second	Trying to log into the radio network
1x per 3 seconds	Logged into the network, relay state is off
1x per second	Logged into the network, relay state is on
3x per second	Loss of connection; attempting to reconnect

7 Technical information

Operation voltage:	230VAC / 50Hz
Self power consumption:	<2,5W including transceiver
Maximal appliance power input:	3600 W / 16A
Input/output:	Plug/socket with protection contact
Measurement accuracy:	±2%, ±2W 20W - 3600W Tbd 1,5W - 20W
Operation temperature:	+10°C až +40°C
Dimensions:	135x55x60mm
Communication frequency:	2,4GHz
Transmitter power:	< 0.1W
Antenna:	external 2dBi

8 List of internal logical devices

The module provides following internal logical devices:

1=measurement and switching of connected appliance;

3=detector of power failure (if failure is detected, signal OFF is sent, if power restore detected, signal ON is sent)

9 Warranty

The device SP-MS-ZAS provides a guarantee of 24 months.

The warranty does not cover damage resulting from improper handling, accident, wear, failure, or manual changes to the device, performed by a third party.