WL-REL-2p: Wireless module with two relay outputs

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Technical data

Supply voltage
110 — 250V AC

Idle power consumption
0.8W

Number of relay outputs
2

Maximum AC current of a single relay output (φ≈0)
10A

Maximum total current of all relay outputs
16A

Technical data cont.

Maximum power of a single relay output's load (φ≈0)
2000VA

Wireless range indoors
300m

Wireless range outdoors
1km

Number of AC inputs
2

AC inputs voltage
110 — 250V AC

Dimensions

Width
48mm

Height
48mm

Depth
22.5mm

Environment

Temperature
-40 — 50°C

Humidity
≤95%RH, non-condensing

The image above is for illustration purpose only. The actual module may vary from the one presented here.

General features

Module WL-REL-2p is a component of the Ampio system. Required voltage to power the module is 110 — 250V AC. The module is controlled via the Ampio LoRa wireless interface.

The module has two relay outputs and two AC inputs.

Relay outputs

The module has relay outputs that enable switching on resistive and inductive loads. The module relays are normally open. The table below shows the permissible operating parameters of the relays depending on the nature of the load.

The nature of the load	Maximum long-term permissible current	Maximum load power
AC1: Resistive or moderately inductive AC loads	10A	2000VA
AC15: Inductive AC loads	1.5A	300VA

One of the contacts of each of the relays is connected to the power phase of the module.

Typical application

- Switching on the lighting;
- control of motor devices;
- connecting classic light switches or other devices with potential-free contact outputs;
- integration with devices with potential-free relay outputs;
- phase presence detection;
- integration with devices with AC outputs.

Installation

The dimensions of the module enable its installation in a standard junction box. In order to start it up, it must be connected to the power supply and paired with the module acting as an Ampio LoRa base station in the wired segment of the building automation installation.

The module has a connector with screw terminals. It allows one to connect the device's power lines, signal lines to AC inputs, and loads of relay outputs.

> One of the contacts of each of the relays is connected to the power phase of the module.

Device status LEDs

On the front of the module there are signalling LED diodes. The green LED with the label *STATUS* indicates the status of communication on the Ampio LoRa interface.

Programming

The module is programmed with a special programmer, available for authorised technicians, and the Ampio Smart Home CAN configurator software. They allow you to modify the parameters of the module and define its behaviour in response to signals directly available to the module. They also provide general information coming from all devices present in the home automation bus.

Before the commencement of configuration activities, it is necessary to pair the device with the module acting as an Ampio Lora base station in the wired segment of the building automation installation. In order to do that, you will need to initiate a search mode for WL-family modules in the base station module in the Smart Home CAN configurator. Then, with the search mode active, press the pairing button on the radio module three times. If pairing is successful, the device that was found will appear on the paired wireless modules list in the Smart Home CAN configurator software.

> It is not recommended to use more than 8 Ampio LoRa wireless modules per one base station module. Installing more modules may result in excessive load on the wireless network and improper functioning of the system.

Programming the rules for which the WL-REL-2p module is to be an executive device, is defined during the configuration of the base station module. In order to create rules whose triggering depends on the state of the WL-REL-2p module, it is necessary to add it to the device list as a *virtual device*.

Inputs state broadcasting

By default, the inputs status of the WL-REL-2p device is not broadcast within the wired part of the building automation bus installation. This behavior can be modified using the Smart Home CAN configurator software, as part of the configuration of the device parameters available in the module settings of the Ampio LoRa base station.

Internal rules

Internal rules of the module, i.e. the rules whose triggering depends on the state of the module's own inputs, while their outcome applies to the module's own outputs, are defined within the parameters of the module. Modification of the WL-REL-2p device parameters is possible in the settings of the Ampio LoRa base station with which the device is associated.
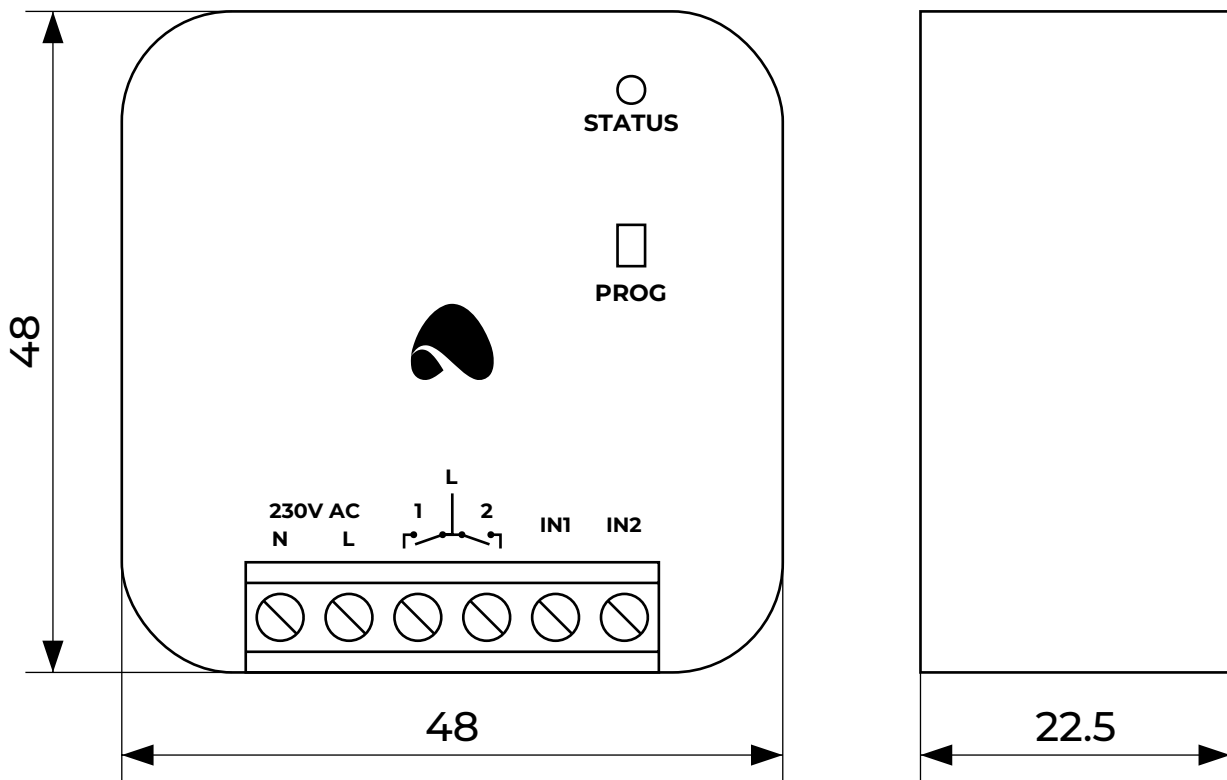
By default, each WL-REL-2p module implements the following internal rules:

- triggering input 1 changes the state of relay output 1,
- triggering input 2 changes the state of relay output 2.

These rules can be removed or modified at the device's configuration stage.

Module dimensions

Dimensions expressed in millimeters.

Connection diagram