ENGO CONTROLS — E RELAY

Smart Relay ZigBee, 16A

ENGO
ZigBee Relay Module 16A
Model: EREL-16ZB
Power Supply: 230VAC, 50Hz
Output: Volt-free, Max 16A
Made in China
IP20 T45

EREL-16ZB

Quick Guide

Technical specifications

Power supply	230V AC 50Hz
Max load	16(5)A
Communication	ZigBee 3.0 2,4GHz
Output	COM / NO (Volt-free)
Input	Volt-free contact input or temperature sensor EFS300
Sensor temperature range	-40°C to 120°C
Dimension [mm]	46 x 46 x 24

Introduction

The ZigBee relay can wirelessly control selected devices in the smart home: heat source, circulation pump, fans, lighting, gates, electric heaters, etc. It has the option to connect an EFS300 sensor, which allows to make smart rules and automations based on temperature readings. Allows you to build any scenario in your smart home. It is housed in an installation box, which makes it possible to mount it under a light switch or under a mains socket. DIN rail mounting is also possible using the bracket provided. A ZigBee internet gateway is required for its correct operation. It can also work with the voice assistants Amazon Alexa and Google Home.

⚠ **ATTENTION:**
The sensor temperature range is from -40°C to 120°C.

⚠ **ATTENTION:**
This product must be used together with ZigBee gateway (purchased separately).

Product Compliance

This product complies with the following EU Directives: 2014/30/EU, 2014/35/EU, 2014/53/EU i 2011/65/EU.

Safety Information:

Use in accordance with national and EU regulations. Use the device only as intended, keeping it in a dry condition. The product is for indoor use only. Installation must be carried out by a qualified person in accordance with national and EU regulations.

Installation:

Installation must be performed by a qualified person with appropriate electrical qualifications, in accordance with the standards and regulations in force in a given country and in the EU. The manufacturer is not responsible for non-compliance with the instructions.

⚠ **ATTENTION:**

For the entire installation, there may be additional protection requirements, which the installer is responsible for.

Input/Output

1. Power supply 230V AC
2. Volt free output
3. Volt free input or input for connecting the EFS300 temperature sensor
4. Function button
5. LED diode indicating the status of the module.

LED diode indications

	EXPLANATION
LED diode flashes quickly on red ●●●●●●...	The device is in pairing mode with the ZigBee network (when the device does not has been previously added to the ZigBee network , or after restoring factory settings)
LED diode flashes slowly on red ● ● ●...	The device is in binding mode (when the device has been previously added to ZigBee network)
LED diode lights up green	Relay of the module has been turned ON

Button functions

	EXPLANATION
Press 1 time	Control of the modules relay (ON/OFF)
Press quickly 5 times ● ● ●...	Enables binding process (to link module with thermostat)
Press and hold approx. 8 seconds until the LED will start flashing red ●●●●●●...	Module reset (module will be removed from the ZigBee network and automatically will go into pairing mode)

Connection description

a) Connection diagram for heating source

b) Connection diagram for pump / actuator

c) Connection diagram for lighting

Legend:

🔥 **Boiler connection*** -Boiler's contacts for ON/OFF thermostat (according to the boiler's instructions)

|			
L, N	230V AC power supply	▶	Pump
PE ⏚	Ground (electricity)	T	Temperature sensor
⎓ Fuse		⊗	Light (bulb)
COM, NO	Voltage-free output	Ⓜ	Valve actuator
S1 /S2	Voltage-free input or input for connecting the EFS300 temperature sensor		External NO contact

Installation thermostat in the app

Make sure your router is within range of your smartphone. Make sure you are connected to the Internet. This will reduce the pairing time of the device.
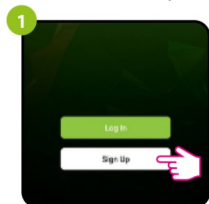
STEP 1 - DOWNLOAD ENGO SMART APP

Download the ENGO Smart app from Google Play or Apple App Store and install it on your smartphone.
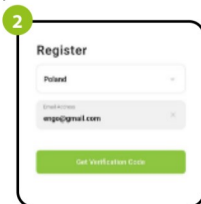
Powered By
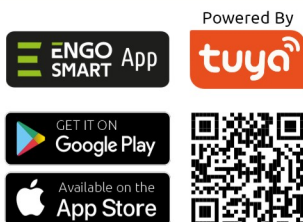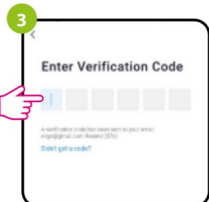

STEP 2 - REGISTER THE NEW ACCOUNT
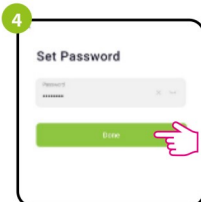
To register a new account, please follow the steps below:

1 Click „Register" to create new account.

2 Enter your e-mail address to which the verification code will be sent.

3 Enter the verification code received in the email. Remember that you only have 60 seconds to enter the code!!

4 Then set the login password.

STEP 3 - CONNECT THE RELAY TO ZigBee network

After installing the application and creating an account, follow these steps:

1 **2** Make sure ZigBee gateway has been added to the Engo Smart app. Make sure the relay is connected to the power supply. Red LED should flash quickly. If not, hold down the button for about 8 seconds. The relay will enter pairing mode.

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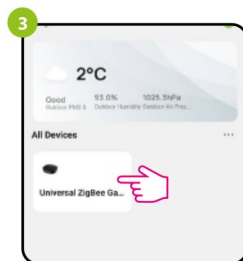
3 Enter the gateway interface.
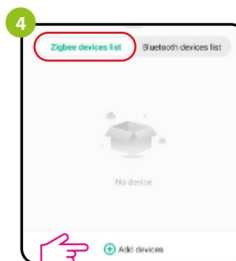
4 In „Zigbee devices list" go „Add devices".
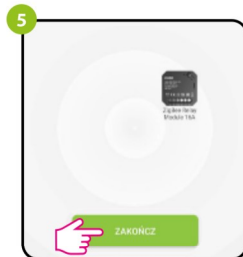
5 Wait until the application finds the device and click "Done".
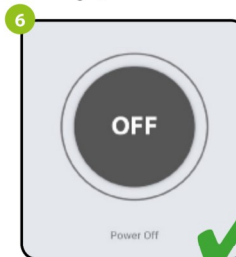
6 The relay has been installed and displays the main interface.

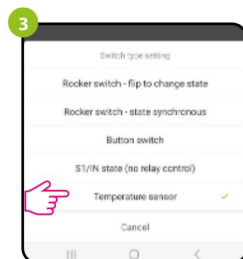## External temperature sensor connection

Contacts S1/S2 can be used to connect the EFS300 temperature sensor. To activate the sensor, follow the steps below:
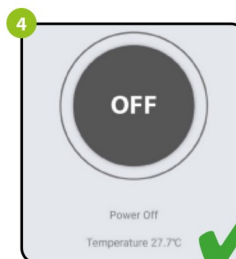
1 Make sure the sensor is connected. Then go to „Settings".
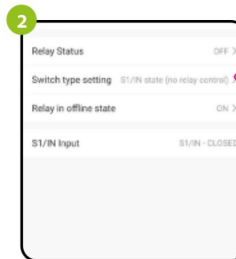
2 Click „Switch type setting".

3 Select „Temperature sensor".

4 The measured temperature value appeared on the relay main screen.

BINDING thermostat with the module/relay

Make sure that the relay and thermostat are in the same ZigBee network (they are added to the same gateway).

1 5x click

2

To properly bind thermostat with the relay first click quickly the button on the device 5 times. Red LED diode will start flashing slowly, which means the device will enable binding mode.
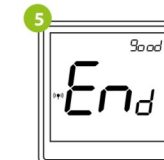
On the EONE thermostat, hold ▲ and ▼ buttons until the „bind" message appears.

3 Release the keys, binding function (process of linking thermostat with control box) is active.

4 The „binding" process takes up to 300 seconds.

5 After successfull binding operation „End" message will be displayed. LED on the module will stop flashing.

6 Both devices have been successfully linked. Thermostat displays the main screen, icon "((•))" appeared on the screen indicating connection with the receiver.

⚠ **ATTENTION:**
If the binding process fails, it must be repeated taking into account the distances between devices, obstacles and local radio signal interferences.

Remember:
Radio range can be increased by Engo ZigBee repeaters.

⚠ **ATTENTION:**
When the thermostat is binded with the module, the relay will turn off after 50 minutes, if the communication between the devices is lost.

Factory reset

To reset the device, press and hold the function button for approx. 8 seconds until the LED flashes red. The relay will be removed from the ZigBee network and gateway, then goes into pairing mode. Now it's possible to add the relay again (see STEP 3 - CONNECT THE RELAY TO ZigBee network).