

EGR-3 Radio-controlled relay module

Installation and user manual

TECHNICAL SPECIFICATIONS

Manufacturer:	Sikom AS, Norway
Type/Model:	EGR-3 / 300-8305V10
Power supply:	230V/50Hz 25mA or 12V DC 150mA
Relays:	3 x potential-free relays, max. load 16A each (resistive)
Temperature sensor:	10K NTC at 25°C
Operating temperature:	-20°C at +50°C
Storage temperature:	-40°C at +70°C
Measurement range:	-28°C at +49°C ±2°C
Compatible with:	EcoStarter Touch (alias GSM ECO-Starter) series
Radio frequency:	433.9 MHz (for local communication with the central unit)
Dimensions:	70 x 90 x 59 mm (4 DIN modules)
Weight :	250 g

EGR-3 is designed for indoor use only.

PACKAGE CONTENTS

- EGR-3
- Antenna
- Protection lids

DESCRIPTION

EGR-3 is a fuse box module with **three potential-free change-over relays** for interrupting and closing electric circuits.

Up to **three temperature sensors** may be connected. When combined with the thermostatic regulation function, the user can enter desired eco/comfort temperatures into the system (e.g. by SMS) to obtain a **programmable thermostat** which can easily be toggled between eco- and comfort temperatures. All three relays offer this function independently of each other. Each temperature sensor may also be used for temperature surveillance, and have an alarm message addressed to you as soon as a specified limit is exceeded. It is furthermore possible to activate a **pulse control mode** on all relays for use with appliances that should require this.

EGR-3 has **three LEDs**, which show when a given relay is active.

OPERATION

EGR-3 is operated either by SMS messages sent to the central unit, or directly from the central unit. Each of its relays is seen as an independent “node”. For further information please refer to the user manual of the relevant central unit.

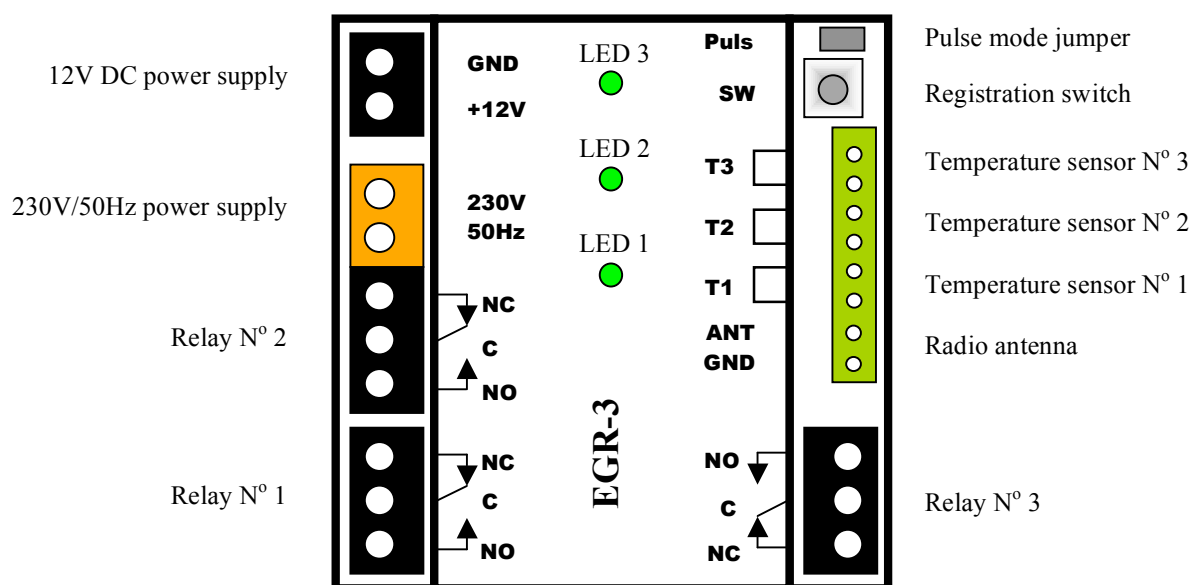


Fig. 1. Connection terminals

INSTALLATION

Power supply:

EGR-3 is to be installed into a fuse box (or other electrically safe place). Use either 230 VAC (orange terminals) or 12 V DC (black terminals) as power supply, but not both at the same time! Adjust protection lids over the 230V terminal strips once all connections are made.

Radio antenna:

The radio antenna is stripped along 16 cm on one end, which must stick vertically out of the fuse box. Connect the central lead wire to the ANT terminal, and the other one to GND (cf. Fig. 2).

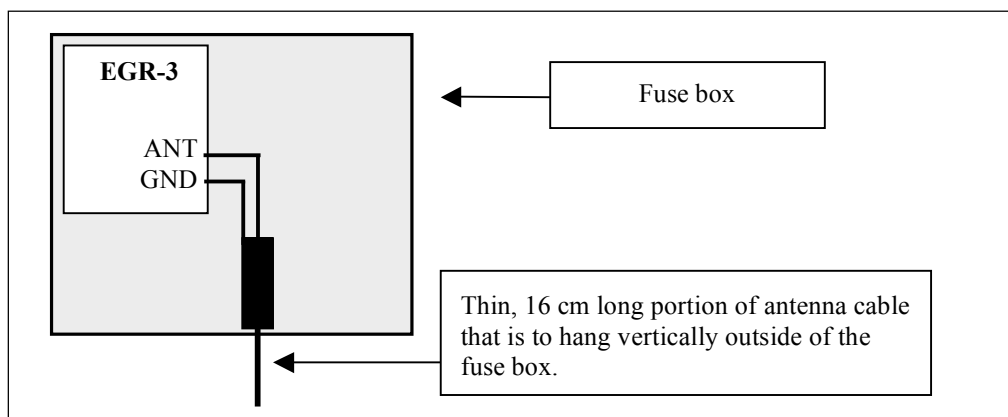


Fig. 2. Installation of radio antenna

Temperature sensors:

Only temperature sensors can be connected to inputs T1, T2 and T3: no other kind of detector!

Connect a temperature sensor for each relay that will be used for thermostatic regulation or for reading off temperatures: sensor for relay N° 1 shall be connected to input pair T1, and so on.

Temperature sensor cables must not be laid out alongside 230 V leads and should be kept as far away as possible from any sources of electrical interferences. Thermostatic regulation and temperature reading may otherwise be perturbed.

Temperature sensors should therefore not be used as floor sensors for floor heating installations, as this would require shielded twisted pair sensors and filters. Similarly, whereas it is possible to extend a temperature sensor, this unfortunately induces a loss of precision of measurements.

Relays (outputs):

Three potential-free relays are available for controlling electric circuits/appliances, each one supporting a load of 16 A. They offer on/off control, thermostatic regulation, or pulse control. Remove the jumper from the **Puls** pins to make all three relays produce pulses as control output. Thermostatic regulation will then be disabled. It will nevertheless remain possible to read off the current temperature from connected sensors.

NB! When using a 230 VAC power supply, the voltage applied at any relay must also be close to 230 VAC. Conversely, a power supply of 12 V DC limits the use of the relays to extra-low voltages. Add auxiliary relays or contactors when necessary.

Remark: the current received at the power supply terminals will only ensure the working of GR-3 itself (e.g., for communicating with the central unit). It will not power the circuits/appliances connected to the relay terminals!

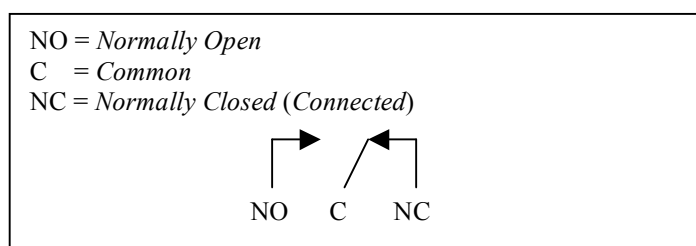




Fig. 3. Relay contacts (in the inactive state)

REGISTRATION WITH THE CENTRAL UNIT

1. On the central unit, go to the setup, then the device registration screen.
If necessary, please refer to the registration procedure in the user manual of the central unit. 
2. Press the **SW** button of EGR-3 for at least 5 seconds.
3. On the screen of the central unit, enter the name to be given to the EGR-3 module. As all three relays are registered in a single operation, they will all receive the same name; but this can be corrected in a later step.
4. The message “Registration OK” will then be shown on the display of the central unit, as well as the 2-digit registration numbers assigned to the three relays.
Please write down these numbers for the end user, as they are required for remote control.
5. Rename as needed each relay (“node”) of the EGR-3 module to give it a proper name (suggesting the respective place, room, appliance or electric circuit under its control).
On the central unit, go to the “rename device” screen. 

IMPORTANT INFORMATION REGARDING FROST PROTECTION

The thermostatic regulation offered by Sikom devices may be used to maintain a base “eco” temperature in your premises, but **must not be taken as an infallible frost protection**.

Indeed, any electronic equipment is vulnerable to power surges and other perturbations that may come from the electricity network, e.g. due to lightning. In such an event, if the electronics is damaged, it may no longer ensure the thermostatic regulation, and hence the frost protection.

Therefore, if frost protection is a critical requirement (such as around water pipes), it is recommended to add a security mechanism. These are some alternatives:

- Use an additional heating system, with its own thermostat, to ensure frost protection in critical premises.
- Install a protection against power surges and other perturbations from the electricity network.
- Set up a bimetal thermostat in parallel with your Sikom unit.

Sikom and its representatives will not assume liability for any damage due to frost!

COMPLIANCE WITH INTERNATIONAL REGULATIONS

This equipment complies with the European R&TTE directive. Further information may be obtained by contacting either www.EcoStarter.com or the manufacturer:

Sikom AS (www.sikom.no)
Neptunveien 6
7650 Verdal
Norway

WARRANTY

Sikom A.S. products are covered by a two years warranty against any faults due to material flaws or manufacturing errors, which limit or render useless certain functions described for the product. The warranty requires the customer to present the original bill, with date of purchase and type of equipment clearly readable.

What is covered by the warranty?

During the warranty period, Sikom A.S. reserves the right to repair the product or to replace defective parts with functionally equivalent parts. If, after several attempts, Sikom A.S. is unable to correct the problem, and the product does not work as described in the manual, Sikom may elect to refund the purchase price or to replace the product with a functionally equivalent one. All replaced parts and products become the property of Sikom A.S.

What is not covered by the warranty?

- Indirect damage to life, health, property, revenue and environment caused by circuits and appliances connected to the units (install and use this product responsibly).
- Costs related to (re)installing, transporting and dismantling units; recycling may be governed by special rules (see the relevant chapter).
- Damages caused by use outside of the operating conditions specified in the manual.
- Malfunctions caused by transport damages.
- Any unauthorized repair, modification or disassembly.
- Use of non-original parts.
- External factors, such as lightning, power supply issues, mobile network issues, flood damage or fire.
- Units with modified, removed or unreadable serial number.

Sikom assumes no responsibility for any errors that may appear in this manual.
Information contained herein is subject to change without notice.

RECYCLING INFORMATION

Waste Electrical and Electronic Equipment (WEEE) Symbol



The WEEE (Waste Electrical and Electronic Equipment) symbol indicates that this product must not be disposed of along with other household waste. It is the customer's responsibility to dispose of the product properly by taking it to a designated site for recycling. To locate a recycling/disposal site near you, contact your local city recycling program, your regular waste disposal service or the agent from whom you purchased this product.

For Switzerland, this product includes in its purchase price a contribution (the advanced recycling fee) to the SWICO Recycling Warranty, which means that used equipment can be handed in free of charge for recycling. Collection sites are listed at <http://www.swicorecycling.ch>