

8 Ratings

- **Power Supply:**

voltage: 9-12V DC

current: 500mA Max

- **Average Input:**

standby: 40mA

sending/receiving sms: 100mA

- **Output:**

type: bistable signal relay

ratings:

0.3A	125VAC
0.3A	110VDC
1A	30VDC

EL35.002T



GSM Remote control

User's Guide

- The EL35.002T device incorporates a latest-generation Dual Band GSM engine. To install and use it correctly, the indications given in this manual are to be strictly respected.
- In order to ensure the operator's safety and the correct operation of the EL35.002T device, the device should be installed exclusively by qualified staff. The rules listed below should also be strictly observed.
- Keep always this handbook available for easy reference.

ElettroTERM EL35.002T rev. 2.0.0

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1 Preface

The device EL35.002T incorporates a new generation GSM dual Band engine, it is designed to control a remote device connected to it (irrigation system, boilers, ecc.)

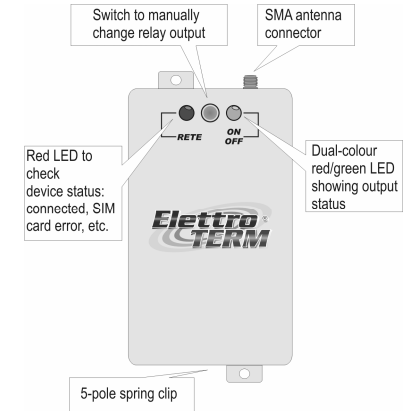
With a simple command, sent via sms, it is possible to control an external device or to know its state (ON, OFF), and to have an approximate value of the room temperature. During the setting you can also give a name to the device and associate an sms text to any status of the output.

The device is protected by a password inserted by the user in the device SIM card.

1.1 Warnings

- The EL35.002T is a low voltage two-way transmitter that sends and receives radiofrequency energy when operating.
- The device may cause interference when used near radios, TVs, telephones or electronic devices in general.
- The EL35.002T may be subject to interference that can affect its performance.
- Do not place the EL35.002T near medical equipment.
- Do not use the EL35.002T in contact with the body. Do not touch the antenna unless strictly necessary.

The diagrams in this section show the LED, button and connections of the device.



6 Problems solving.

1. Inserting the power supplier on the outlet, the device does not work:
 - a. Check the polarity of the connection (see instruction point 2.3)
2. The net LED continues to flash quickly (the LED is mainly lighted):
 - a. Verify that the antenna is correctly installed.
 - b. Verify that the device is installed in a position with a good level of GSM field.
 - c. Be sure to have correctly inserted the SIM card, to have deactivate the PIN code and to have correctly programmed the SIM Card.
3. Pushing the pushbutton the output doesn't change over:
 - a. Verify that the password is correctly inserted in the first entry of the SIM Card phonebook (file name, location n°1).
4. sending a command to the device it doesn't change over or you don't receive an answer:
 - a. wait, sometimes sms can have some delay. Wait for some minutes.
 - b. Wait. After some minute try with a new command sms. If you don't receive any answer, follow this procedure: call from any phone the SIM Card number inserted in the device:
 - if the device cannot be reached, it is not installed correctly: be sure that the device is installed in a place with a good level of GSM Field signal.
 - if the phone number rings regularly, the device works correctly, the sms are late for a delay in GSM network.

7 Declaration of CE conformity

ELETTROTERM Srl, certifies that the device **EL35.002T** conforms to fundamental requirements and other regulations of the EC directive 1999/5.

5 External Devices

The EL35.002T has been specifically designed for the remote control of systems connected to it (irrigation systems, timer thermostats, boilers, etc.).

These systems must have a control line that can be connected to the product you've purchased (see the device's relay output rating).

N.B.: the EL35.002T has not been designed for use as a switch to install on the power line of the system to be controlled.

To ensure a correct association between output status, external device status (on or off) and the dual-colour LED status, when you install the device, make sure you take the following steps:

- If the external device you want to control comes on when the control line is closed, connect this line to the NC and COM terminals.
- If the external device you want to control comes on when the control line is open, connect this line to the NO and COM terminals.

If you follow these instructions, the association between the status of the connected device and the dual-colour LED will be:

- Green LED → External device ON;
- Red LED → External device OFF.

5.1 Accessories

Available accessories:

- Magnetic base antenna with 2.5 m lead and adaptor.
- Antenna.
- External power supply unit.

2 Installation

- Make sure temperatures are within -5°C - +45°C when you install the product you've purchased.
- Put the product on a stable surface. Make sure there is a good GSM network signal.
- To make the device work correctly, you must insert the Plug-In SIM Card for receiving and sending text messages. First you must programme the SIM card.

2.1 Programming the SIM Card

In order to programme the SIM Card Insert it card in a mobile phone and:

- Disable the "Enter PIN code"
- Delete all phone numbers in the SIM address book
- Enter the following informations:

SIM CARD PHONEBOOK	Loc	CONTENT		MEANING
	1	Name:	Device Name	← device name (max 15 characters)
	Number:	P ₁ P ₂ P ₃ P ₄	← System Password	
2	Name:	String OFF	← Text associated to the OFF state (NA-COM). Max 15 characters	
	Number:	0		
3	Name:	String ON	← Text associated to the ON state (NC-COM). Max 15 characters	
	Number:	1		
⋮	NOT USED			

The first entry of the SIM Card phonebook contains the device name (eg. Office) and the System Password (P₁P₂P₃P₄, eg.4567). The filed name of the second SIM Card phonebook contains the text associated to the output OFF state (eg. Splitter OFF); whereas the field name of the third SIM Card phonebook contains the text associated to the output ON state (eg. Splitter ON).

- Remove the SIM card from the mobile phone.

N.B: to make sure the password is in the right position, delete all phone numbers in the SIM address book.

2.2 Inserting the SIM Card.

- Make sure the device is turned off
- Locate the SIM card slot, and gently press the (yellow) button to with a pencil open the SIM slot
- Insert the SIM card in the slot, making sure it's the right way round
- Push the SIM card slot (gently) to close

N.B.: to make sure you've programmed the SIM card correctly, turn on the device (after putting the SIM card in and connecting the antenna), wait one minute, then press the button to manually change output. If this doesn't work, the SIM card has not been programmed correctly.

2.3 Power Supply

The device must have a power supply from 9 - 12V DC with a current from 300mA - 500mA DC.

Check the polarities as shown on the device (Figure 1).

N.B.: a short-circuit protected power supply must be used.



fig. 1

2.4 Connecting the Antenna

To connect the antenna:

- Make sure the device is off
- Screw the antenna onto the connector (gently)

2.5 Checking Reception

You can check GSM reception and connection to the GSM network (after powering the device) in one of the following ways:

- Call the phone number of the SIM card in the device. The device is connected to the GSM network if there is a ring tone.
- Look at the "Network" status LED: if it flashes on and off quickly (i.e. the LED is nearly always off) the device is connected to the GSM network.

When the device is being turned on, and when it is operating, the Network LED may:

- Flash on and off slowly (i.e. the LED is on for longer time). This means the device is not connected to the GSM network and is searching for a mobile phone frequency, or the SIM card has not been inserted correctly.
If the device has just been turned on, wait a few moments. If this slow pulse continues, make sure the device is in the right position and the SIM card has been inserted correctly.
- Flash on and off quickly (i.e. the LED is nearly always off). This means the device is connected to the GSM network.

3 Commands

You can text message the following commands to the device. This will affect output as follows:

- **A or 1 : Turn ON**
 - Dual-colour LED is GREEN;
 - contact **N.C.** is closed;

- contact **N.A.** is open.
- **S or 0 : Turn OFF**
 - Double-colour LED is **RED**;
 - Contact **N.A.** is closed;
 - Contact **N.C.** is open.
- **D or ? : status request**
 - No effect on output

The text message with the command to send to the phone number of the SIM card inserted in the device is as follows:

Password	#	Command
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The device will then carry out the command (if correct) and will send a text message to the sender's mobile phone number to confirm. The device will send one of the following messages:

Device Name	:	Status String	.	Tamb=	Temperature	.
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For example, if you send the command 4567#1, the EL35.002T will send you the following sms:

Office: Splitter ON. Tamb=20.5°C

(N.B.: quoted temperature is only an example).

The device will send an error message

Device Name	:	ERROR!
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if the text message command is wrong: wrong password, non-existent command, wrong format.

N.B.: text messages may sometimes be delayed

4 Manually Changing Output

Besides text message operation, the device's output can be manually changed using the button between the two LED.

Press the pushbutton (and keep it pushed at least half second) to invert the output status of the system.

The dual-colour LED shows the current output status:

- **GREEN:** contact **N.C.** closed, **N.A.** open.
- **RED:** contact **N.A.** closed, **N.C.** open.