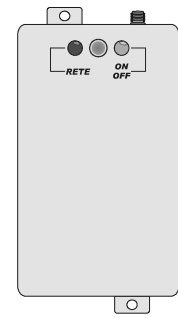


PRESENTAZIONE

EL35.014B is a GSM instrument designed for remote control of a device connected to it (electric gates, boilers, air conditioners, automatic mechanisms in general, etc.).

With a telephone RING (no call connection fee), the Enabled Users can control a remote user at no cost (if the Execution Notification function is disabled).



The device can be preset by sending a simple SMS command message and is protected by a password, which prevents its unauthorized use.

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(1) INSTALLATION

For correct operation, the device requires a **Plug-In SIM Card** (not included) enabled to receive and send SMS messages, to receive voice calls, and not protected by a PIN code.

N.B.: Before inserting the SIM card, remove (if present) the PIN code protection by using a cell phone and eliminate all telephone numbers contained in the SIM phone book.

Please always be careful to remind the expiring date of the SIM Card, if existing.

The product should be installed within the following temperature range: from -5°C to +45°C.

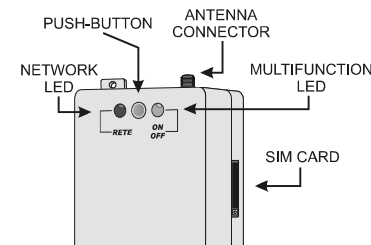
The EL35.014B device operates by using a radio sign. No mobile telephone operator is able to guarantee connection at any instant. For this reason, the EL35.014B cannot be used in life support systems.

Procedure:

- Make sure that the device is off.
- Locate the SIM Card slot and exert a slight pressure on the yellow release pin of the SIM holder using a pencil.
- Insert the SIM card in its slot making sure of its correct orientation.
- Close the SIM holder by pressing it fully home (with great care).
- Screw the antenna on relative connector (without applying excessive force).
- Place the product on a firm surface making sure that a good signal of the GSM operator is present.
- Connect the external instrument with due observance of all necessary regulations.
- Power up the device.

When switching on for the first time the settings are those given in (6).

(2) INTERFACES



The **Push button** allows:

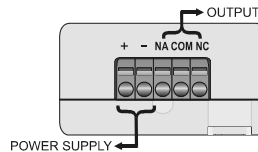
- local execution of the preset command (manual switching of the output or pulse generation);
- activating display of the GSM network field strength detected by the device.

The **Multifunction Led** allows:

- Displaying the output status;
- Displaying of the GSM network field strength detected by the device.

Network Led:

- Red light: indicates that the device is not connected to the GSM network and is searching for network signal, or else the SIM card is incorrectly inserted, or the SIM card is protected by a PIN code.
- Rapid flashing (i.e. the LED is almost always unlit): indicates that the device is connected to the GSM network and is ready to receive commands.
- Unlit: indicates that the GSM section is off.



Output:

- The device is provided with a bistable relay output.
- If the external device to be controlled is switched on when the command line is closed, proceed to connect such line to N.A. and COM terminals.
 - If the external device to be controlled is switched on when the command line is opened, proceed to connect such line to the N.C. and COM terminals.
- If such instructions are followed, the association between status of the device connected and the multifunction led is as follows:
- Green Led : external device On (COM-NA).
 - Red Led : external device Off (COM-NC).

Power Supply:

The power supply for the device should be from 9 to 24V DC with current of 1A.

(3) LOCAL ACTIONS

After start-up of the device it is possible to:

- local execution of the command for which the device has been preset (switching of output or pulse generation), by pressing the push button for a time between 1.5sec. and 5sec., then release.
- Display the GSM network field strength by pressing and holding down the button until the multifunction led goes out (about 6 sec. after). After the multifunction led goes out the following information is supplied:
 - Red, steady light: critical coverage, reposition the antenna.
 - Red\Green, flashing: poor coverage, reposition the antenna if possible.
 - Green, steady light: sufficient coverage.

Local actions do not generate the sending of any notification SMS.

(4) USERS ENABLED

An Enabled User can execute the preset command in remote mode by a simple voice call at no cost (call towards the phone number of the SIM Card inserted in the device) and, depending on the settings, the user can choose whether to receive a notification SMS or not.

Once the device recognizes the caller, it refuses the call and performs the programmed command. The telephone number of an Enabled User is saved in the Phone Book of the SIM card inserted in the device, and can be added\removed manually (by switching off the device and inserting the SIM Card in a cell phone) or in remote mode via the A and D commands.

Be careful not to insert manually many times the same number.

Max. number: depends from how many number can be saved on the SIM Card.

The telephone number of an Enabled User must be inserted in international format:
(Ex: +393344556666).

(5) FUNCTIONS

Bistable mode

The output status of the device switches (from ON→OFF or else from OFF→ON) upon receiving a voice call sent by an Enabled User or in local mode. The function can only be enabled via SMS.

Pulse mode

The device output is activated for a preset time (presettable via SMS, from 1 to 10 sec) upon receiving a voice call sent by an Enabled User or in local mode.

The function can only be enabled via SMS.

TFUNCTION

This function allows displaying information regarding ambient temperature in each Status Notification SMS; it can only be Activated\Disactivated via SMS (see (7))

Execution of Command Notification

This allows the device to send an SMS to the phone number of an Enabled User after execution of a remote command.

The function can only be activated via SMS during the selection of the type of working mode.

(6) DEFAULT SETTINGS

After the first installation, default settings are as follows:

- Password: 0000
- Mode: Bistable
- TFUNCTION: OFF
- Output: OFF (COM-NC, Multifunction Led red)
- Notification of Execution of command: OFF

The default settings can be restored at any moment by proceeding as follows:

- Power off the device;
 - Press and hold down the push button;
 - Power up the device (the multifunction led remains unlit for approx. 5 seconds);
 - When the multifunction led lights up, release the push button;
- The settings have been restored.

The above procedure don't remove the enabled users from the SIM Card. To delete all use Command "C" (see (7)).

The settings are saved permanently in the internal memory of the device. In the event of a power failure, the memorized settings are not lost and they are restored when switching on.

(7) COMMANDS (SMS)

Format of a command SMS:

PASSWORD # COMMAND[PARAMETERS]

Password example: 0000 (Default value)

The command SMS should be sent to the cell phone number corresponding to the SIM card inserted in the device installed.

ACTIVATE BISTABLE MODE (B OR B)

To set the bistable mode with NO Execution of Command Notification send the following SMS:

0000#B

To set the bistable mode with Execution of Command Notification send the following SMS:

0000#BS

Multifunction Led: No modification

Output: No modification

After execution, the device sends a Notification SMS to the sender's cell number (see (8)).

ACTIVATE PULSE MODE (I OR I)

For the Pulse Mode, after the "I" command it is required to set also the duration of the pulse (from 1 to 10 sec.)

To set the pulse mode with NO Execution of Command Notification, pulse duration 5 sec, send the following SMS:

0000#I5

To set the pulse mode with Execution of Command Notification, pulse duration 10 sec, send the following SMS:

0000#I0S

Multifunction Led: Red
Output: COM-NC closed

After execution, the device sends a Device Settings Notification SMS to the sender's cell number (see (8)).

ACTIVATE/DISACTIVATE FUNCTION (T)

The T_{FUNCTION}, when active, shows the temperature in the notification SMS.

To activate the T_{FUNCTION} send the following SMS:

0000#T1

To deactivate the T_{FUNCTION} send the following SMS:

0000#T0

For further information see (5).

TEMPERATURE TUNING

This Command allows to tune the temperature sensor. Before tuning, please wait until the device reaches full operating temperature (30 minutes at least).

Example of SMS to add two degrees
0000#T+02 (Added 2 °C)

Example of SMS to subtract one degree
0000#T-01 (Subtract 1 °C)

After the execution, the device sends an SMS displaying the new temperature to the sender's phone number.

REQUEST STATUS (?)

By sending the following SMS:

0000#?

the device sends a Status Notification SMS to the sender's cell number containing the output status and information regarding the functions activated (see (5)).

Multifunction led: no modification
Output: no modification

CHANGE PASSWORD (P)

The password should consist of four digits.

Example: to set the new password 1234 while the current password is 0000 send the following SMS:

0000#P1234

The device sends the following New password Notification SMS to the sender's cell number:
New Password: 1234

ADD ENABLED USER (A)

To add a new Enabled User in the phone book of the SIM Card (the number must be in international format, ex: +393344556666) send the following SMS:

0000#A+393344556666

The device sends a Modify Phone Book Notification SMS to the sender's cell number (see (8)).

REMOVE ENABLED USER (D)

To remove an Enabled User send the following SMS:

0000#D+393344556666

The number +393344556666 will be deleted from the SIM Book and will not be able to activate the device.

The device sends a Modify Phone Book Notification SMS to the sender's cell number (see (8)).

If the number is not in the SIM Book, the device will reply with the following SMS:

Not present: +393344556666

REMOVE ALL USER (C)

To remove all Enabled User send the following SMS:

0000#C

The execution of the above command require about 2 minutes. If you send other commands they will be executed after.

The device sends a Modify Phone Book Notification SMS to the sender's cell number.

(8) NOTIFICATION SMS

After receiving a command SMS, the device can send different modification SMS messages to the sender of the command:

Error Notification SMS

The device sends this SMS if the command sent does not exist or cannot be activated, or if the command parameter is not valid.

Content of this notification SMS is as follows:

ERROR!

In case of wrong password (4 digits and #) the notification SMS is:

Invalid password!

Status Notification SMS

The device send this SMS after executing any of the command (excluding P). A status Notification SMS contains the information regarding the current status of the output and the function activated.

Examples:

- Pulsed Operation Activated with a time period of 3sec:
Pulse 3s.
- Only Bistable operation:
ON/OFF (depending on the relay status)
- Bistable operation and Notification of Execution of Command activated, T_{FUNCTION} activated:
ON. SMS. T:20C
- Pulsed Function Activated with time period of 5sec, Notification of Execution of Command activated
Pulse 5s. SMS.

Phone Book Modification Notification SMS

This contains information regarding the adding or deleting of an enabled user in/from the phone book.

- Adding:
Added: Phone Number
Ex: Added:+393344556666
- Deleting:
Deleted: Phone Number
Ex: Deleted:+393344556666
- Deleting all users:
Deleted All

The device does not send any type of notification SMS if the SMS received is not recognized as valid (e.g. incorrect or invalid password).

After receiving a voice call from an Enabled User the device executes the preset function and can send (if the Execution of Command Notification function is enabled) a notification SMS for Execution of Remote Command.

Execution of Remote command notification SMS

This contains, in the case of bistable operation, the current state of the output, or in the case of pulsed operation, notification of execution of the command.

- Pulsed Operation:
Command Executed.
- Bistable Operation:
 - ON
 - OFF

(9) AUTOMATIC RESTART

This function allows simulating the disconnection, and subsequent re-connection of the device from/to GSM network every six hours, in order to maintain a discrete value of priority in the operators' queues. Such function is useful in places where there is the risk of the GSM network signal missing even for several days.

(10) NAMEPLATE DATA

Power supply:
Volts: 9-24V DC
Amps: 1A

Average power consumption:
Standby: 40mA
Sending/Receiving of SMS: 100mA

Output

Type: bistable relay SPDT
Contact Load Capacity (MAX):

0.25A	250VAC	62.5VA
0.5A	125VAC	62.5VA
2A	30VDC	60W

(11) ACCESSORIES

- Antenna with magnetic base and cable 2.5m
- Rod antenna.
- Power supply unit
- External power relay.

(12) FAQ

Q: The network led is red and the multifunction led continues to emit prolonged flashes.

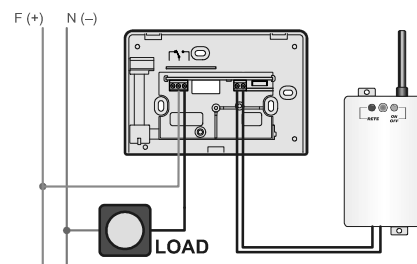
A: The SIM card is protected by a PIN code, or else it has been inserted incorrectly. Check.

Q: After sending a command SMS, the notification SMS messages arrive late or else they are not delivered.

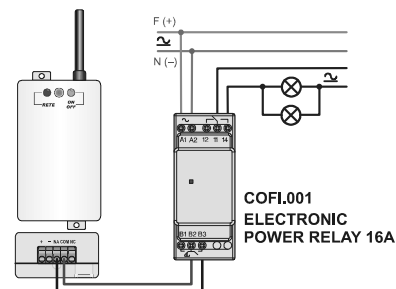
A: 1) The EL35.014B device operates by using a radio sign, no mobile telephone operator is able to guarantee connection at any instant. For this reason, the EL35.014B device cannot be used in life support systems. 2) Make sure that there is credit on the SIM card. 3) Make sure that the device has been installed in a place where the GSM network signal is present.

(13) WIRING DIAGRAMS

1. Connection to chrono-thermostat enabled



2. Connection to a power relay



(14) WARRANTY

The product is warranted for 12 months from the date of purchase, as proved by the purchase document.

The company declines all liability for injury or damage which may occur to persons, property or animals, as a result of failure to observe all the instructions given in the user manuals.

(15) CE DECLARATION OF CONFORMITY

With this document, the manufacture declares that the device conforms with the essential requirements and the other provisions set forth in the directive 1999/5/CE. WEEE Eco-contribution paid where due - WEEE register no.: IT0802000003625

EL35.014 REV. 300 02/10

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