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# ELCOTSE-Wi-Fi

## Wi-Fi programmer

## User Manual

ELCOTSEWiFi-GB-00-04-A



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## GENERAL INFORMATION

This instruction manual is an integral part of the Programmer WiFi ELCOTSE-WiFi and users should always make reference to it.

- The Programmer WiFi ELCOTSE-WiFi, also referred herein as "product" or "device", to which this document refers, is provided for use by persons trained in its use. The instruction must provide for the knowledge of the product and of the maneuvers to be performed during the use, to allow its use in safe conditions.
- All persons trained to work with the product should carefully read this manual in all its sections and understand its contents.
- It is especially important that staff are informed on security with regard to general practices for the protection of people, the product and the surrounding environment.
- Only the correct use of the product as recommended will ensure its lasting and effective use, in full safety for the operators and for the product itself.
- EL.CO. S.r.l. reserves the right to make any formal or functional changes at any time without prior notice.
- The electrical installation where the component is installed must meet the safety requirements in force.
- EL.CO. S.r.l. and its legal representatives do not assume any responsibility for any damage to people, things or animals deriving from violation, misuse, wrong use or otherwise not in accordance with the device features.
- All rights to this documentation are reserved. Translations, reprints and copies of this manual, even if partial and/or otherwise expressly require the consent of EL.CO. S.r.l.

## INTENDED USE

The Programmer WiFi ELCOTSE-WiFi is a communication interface for the configuration and control of EL.CO devices through the App or the PC software called EL.CO TSE CONF.

Any other use of the product is not allowed and it is considered improper and therefore dangerous. EL.CO. S.r.l. shall not be liable in any way for damage to persons or property that could occur due to improper use.

## Intended recipients of the manual

- This manual is intended for all authorized users and suitable to use the Programmer Wi-Fi.
- All users must read and understand the contents of this manual, which they have to follow while working with the product.
- This manual is an integral part of the product to which it relates and shall be kept throughout its life cycle.
- In case of transfer or sale of the product, the manual and all accompanying documentation, or connected one, shall be maintained and delivered with it.

## WARRANTY

The warranty provided by the manufacturer on the product is valid for one year. The following conditions will void the product warranty provided by EL.CO. S.r.l.:

- Improper use of the product, which is different than the expected one, as described in section Intended use
- Use by unauthorized or untrained personnel;
- Total or partial disregard of these instructions;
- Power supply defects;
- Pollution coming from the outside;
- Changes and unauthorized repairs.

## DESCRIPTION OF THE ELCOTSE-WIFI PROGRAMMER

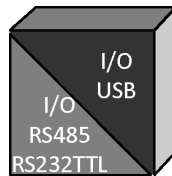
The interface consists of a plastic container and the connection cables between the device to be programmed and the programmer. It is not necessary to power the device to be configured, since the power supply is provided by the programmer through the connection. The programmer has a battery on board that allows you powering a device for several hours. It is necessary to power the device under programming and/or monitoring to maintain the internal battery charge.

The WiFi interface inside is able to connect to an existing Wi-Fi network and to create its own network. The device therefore has both station (host) and access point functions (server, with DHCP) and is set up for use with any smartphone operating system (Android, iOS, etc.). You cannot use both RS485 and RS232TTL interfaces at the same time or use the USB interface for PC and the Wi-Fi interface at the same time.

The device is fully compatible with the applicable CE marking requirements.

- Compatible with any protocol (i.e. ModBus-RTU, ModBus-ASCII, Interbus, etc.)
- WEB interface for serial speed setting
- Communication on RS485-2 or RS232TTL serial line
- Recharge either via USB port or via connected device and powered externally
- USB port for smartphone/tablet charging
- Charging signaling LED (yellow), Vbus > 12V (green), RX and TX (yellow), connection to existing WiFi (blue)

- EMC compatibility meeting EN 50022 and EN 50035
- 1-year warranty



### Applications

- Programming of EL.CO. devices
- RS485 or RS232 TTL communication not isolated

### TECHNICAL DATA OF ELCOTSE-WIFI PROGRAMMER

POWER SUPPLY	Internal battery (LiPo), USB, EL.CO device
ABSORPTION	500 mA (max.)
SWITCHING TIME Rx/Tx RS485	<25 µs
PROGRAMMING SIDE CONNECTION	USB-mini-USB-micro USB cable m/m
OTHER CONNECTIONS	USB port for charging the programmer and connecting to the PC, USB port for smartphone charging
RS485 LINE IMPEDANCE	Typical 120 Ω
OPERATING TEMPERATURE	0 °C...+50 °C
STORAGE TEMPERATURE	-40 °C...+85 °C
HUMIDITY	0 ... 90% non-condensing
CONTAINER	TEKO Soap
MATERIAL	Self-extinguishing plastic
PROTECTION DEGREE	IP 20
WEIGHT	110 grams
DIMENSIONS (W x H x D) in mm	131 x 30 x 65
COMPLIANT WITH THE SPECIFICATION	RS232 ttl; RS485 2 wire
EMC (for industrial environments)	EN 50081-2 and EN 50082-2

### Overall dimensions (mm)

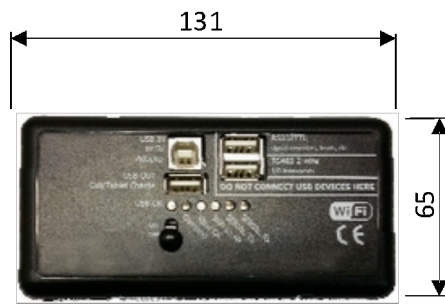


Figure 1- Overall dimensions

## CONNECTION DIAGRAM FOR INPUTS, OUTPUTS AND POWER SUPPLY

The device is powered by the internal battery, which can be recharged either through the USB/a port or via the connected device, if powered externally. When switched on, the device initializes the internal web server, the internal WiFi network (access point) and connects to the existing WiFi network set, if in the detection field.

To configure the existing WiFi network, just connect to the ELCOTSE-WiFi WiFi network and, using a browser, access the configuration page by contacting the gateway IP address provided by the internal DHCP server.

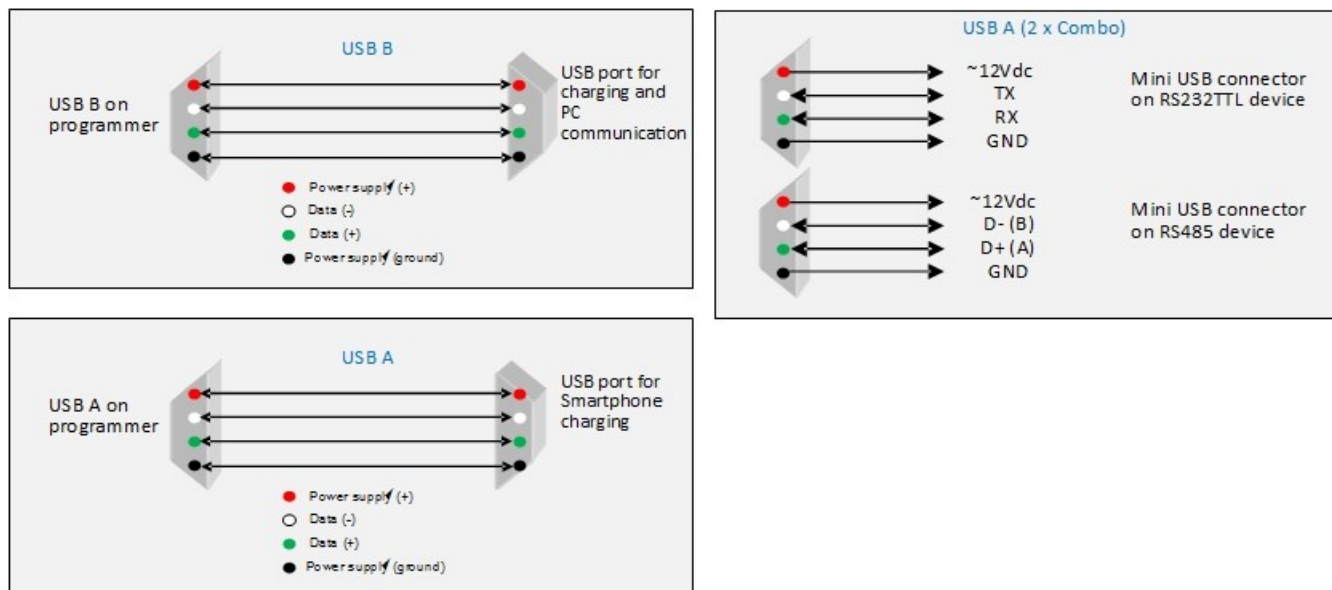


Figure 2- Connections

## Driver and device installation

The drivers are included in the ELCOTSE-CONF software installation package. To install on a PC, just connect the converter using a USB-B cable and follow the requests on the screen. If required, specify the folder where the archive files provided were extracted. The installation is complete. In Windows systems, to know which COM has been assigned to the converter, just access the control panel - device management - COM and LPT ports.

In case of use on Android devices, special drivers are not necessary, it is sufficient to own a smartphone equipped with WiFi interface. Once the App has been downloaded and installed, just open it and follow the instructions on the screen.

## Signaling LEDs

Yellow LED - Charge	ON	External power supply and battery charge
	OFF	Powered by battery or device off
Green LED - USB > 12V	ON	>12V at output
	OFF	Overload or power failure of devices or device off
Blue LED - WiFi OK	ON	Device connected to the configured WiFi
	OFF	Device not connected to external WiFi
Yellow LED - Rx and Tx	On/Flashing	Communication
	OFF	The device does not communicate

## PROGRAMMING

During the programming procedure, do not disconnect the device. For more information on the operation of the configuration program, refer to the relative operating manual.

**NOTE:** In order to guarantee the integrity of the stored data, the recalibration of the EL.CO devices to which the programmer is connected must be carried out with an external power source.

Usually, recalibration is not necessary and is not performed by the user.

### Configuration with Android device

The configuration is performed through the ELCOTSE-CONF App and the ELCOTSE-WiFi programmer and takes place as follows:

- Open the plastic protection door on the front of the device
- Connect the programmer to the device (the connection cable is a very common USB-mini USB m/m cable that can be purchased in electronics and IT stores) The signal converters must be connected to the RS232TTL port. Slim converters use a USB-micro m/m cable (like smartphones) and all others use a USB-mini m/m cable
- Switch on the programmer using the on/off switch on the front panel
- Open the ELCOTSE-CONF App
- Connection to the device through an external or internal access point
- Access the configuration page
- Set the data and save them in the device



Figure 3- Configuration with Android device

### Configuration via PC

The configuration is performed through the ELCOTSE-CONF PC SW and the ELCOTSE-WiFi programmer and takes place as follows:

- Open the plastic protection door on the front of the device
- Connect the programmer to the device (the connection cable is a very common USB-mini USB m/m cable that can be purchased in electronics and IT stores)
- Connect the programmer to the PC (USB-A type connector called "USB IN")
- Switch on the programmer via the on/off switch on the front panel
- Start SW ELCOTSE-CONF
- Selection of the COM port that the PC has assigned to the programmer
- Access the configuration page
- Set the data and save them in the device

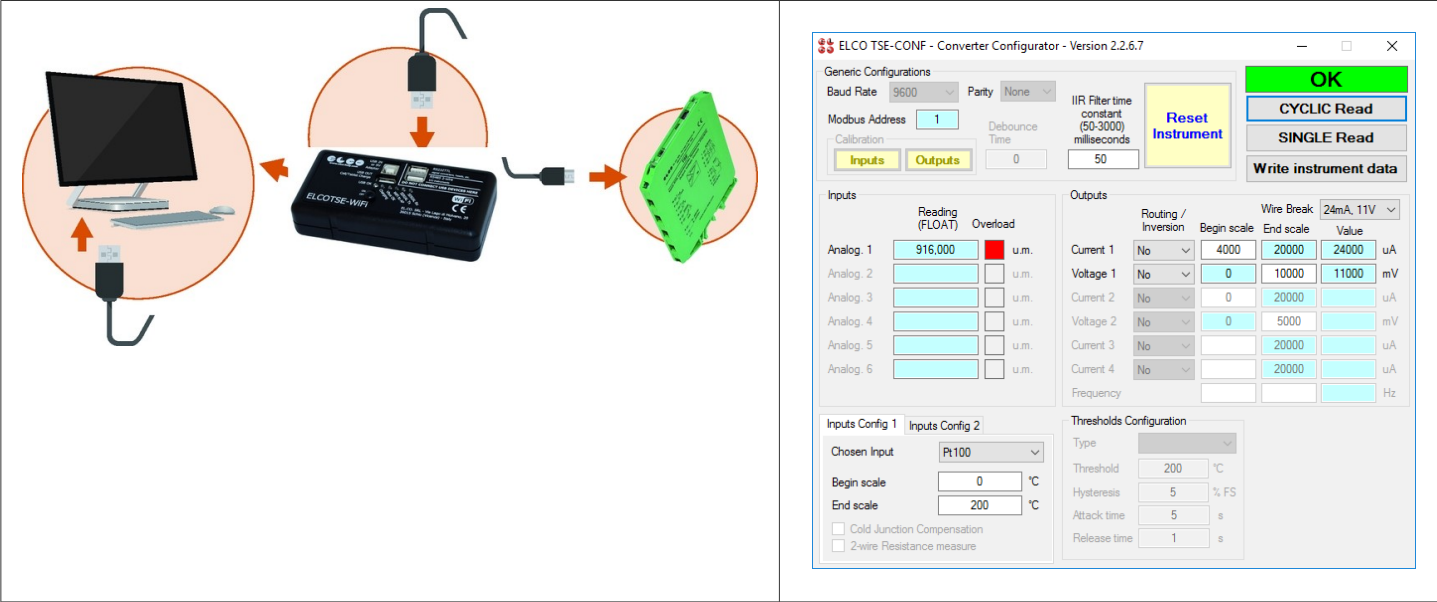


Figure 4- Configuration via PC

**ORDERING DATA**

Use the followw ordering code: ELCOTSE-WiFi