TECHNICAL MANUAL

ETREIB

ETR units interface for EIB-based systems

090030683

CE

IT08020000001624

EL.MO. SPA

FOREWORD

FOR INSTALLERS:

Please follow carefully the specifications relative to electric and security systems realization further to the manufacturer's prescriptions indicated in the manual provided.

Provide the user the necessary indication for use and system's limitations, specifying that there exist precise specifications and different safety performances levels that should be proportioned to the user needs. Have the user view the directions indicated in this document.

FOR USERS:

Periodically check carefully the system functionality making sure all enabling and disabling operations were made correctly. Have skilled personnel make the periodic system's maintenance. Contact the installer to verify correct system operation in case its conditions have changed (e.g.: variations in the areas to protect due to extension, change of the access modes, etc…)

....

This device has been projected, assembled and tested with the maximum care, adopting control procedures in accordance with the laws in force. The full correspondence to the functional characteristics is given exclusively when it is used for the purpose it was projected for, which is as follows:

ETR units interface for EIB-based sytems

Any use other than the one mentioned above has not been forecasted and therefore it is not possible to guarantee its correct operativeness.

The manufacturing process is carefully controlled in order to prevent defaults and bad functioning. Nevertheless, an extremely low percentage of the components used is subjected to faults just as any other electronic or mechanic product.

As this item is meant to protect both property and people, we invite the user to proportion the level of protection that the system offers to the actual risk (also taking into account the possibility that the system was operated in a degraded manner because of faults and the like), as well reminding that there are precise laws for the design and assemblage of the systems destinated to these kind of applications.

The system's operator is hereby advised to see regularly to the periodic maintenance of the system, at least in accordance with the provisions of current legislation, as well as to carry out checks on the correct running of said system on as regular a basis as the risk involved requires, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. The user must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.

Design, installation and servicing of systems which include this product, should be made by skilled staff with the necessary knowledge to operate in safe conditions in order to prevent accidents. These systems' installation must be made in accordance with the laws in force. Some equipment's inner parts are connected to electric main and therefore electrocution may occur if servicing was made before switching off the main and emergency power. Some products incorporate rechargeable or non rechargeable batteries as emergency power supply. Their wrong connection may damage the product, properties and the operator's safety (burst and fire).

DISPOSAL INSTRUCTIONS - USER INFORMATION

According to Directive 2012/19/EU on the Waste of Electric and Electronic Equipment (WEEE), it is here specified that this Electrical-Electromechanical Device started to be commercialized after 13th August 2005, and it shall be disposed of separately from ordinary waste products.

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1. GENERALS

ETREIB interface allows data exchange between compatible ETR units and EIB-based automated systems, and vice versa.

The product includes a standard EIB interface and **must be installed** inside unit's housing.The configuration application supplied with the product allows to setup the interface according to the specific system requirements. Currently, the following units are supported:

ETR48 M e ETR48Q		ETR128	ETR128 G2	ETR256	ETR256 G2
ETR100, ETR100M and ETR100Q	ETR100M G2 ed ETR100Q G2	ETR128R	ETR128R G2	ETR512	ETR512 G2
NET832 - NET832Q			NET9 - NET9Q		
VILLEGGIO DOMO		VILLEGGIO BASIC		PREGIO1000 and 2000	
Titania, TitaniaPlus, TitaniaPlus2 version 4.x or higher			VIDOMOBTRX		

2. FEATURES

Model:	ETREIB	Wirings:	Terminals for power and EIB wiring. DB9M connector: 1) to the panel with CP8/SER2cable. 2) to the PC with null-modem cable
Power supply::	12V ▬▬ supplied by the unit, (9,5 to 15V).		
Power consumption:	100 mA max.		
Setup from PC:	Requires a jumper closed. See further on.	Dimensions: Weight:	L101 x H 64,5 x P 26 mm. 80g.
Communication protocols:	Conversion between ETR and EIB protocols.	Parts supplied:	CP8/SER2 and NullModem connection cables, CD-Rom with software, technical manual.

The interface is an accessory compatible with the previously listed products. It complies with current European EMC and LVD directives. You can log into the elmospa.com website to read the full Declaration of Performance: registration is quick and easy.
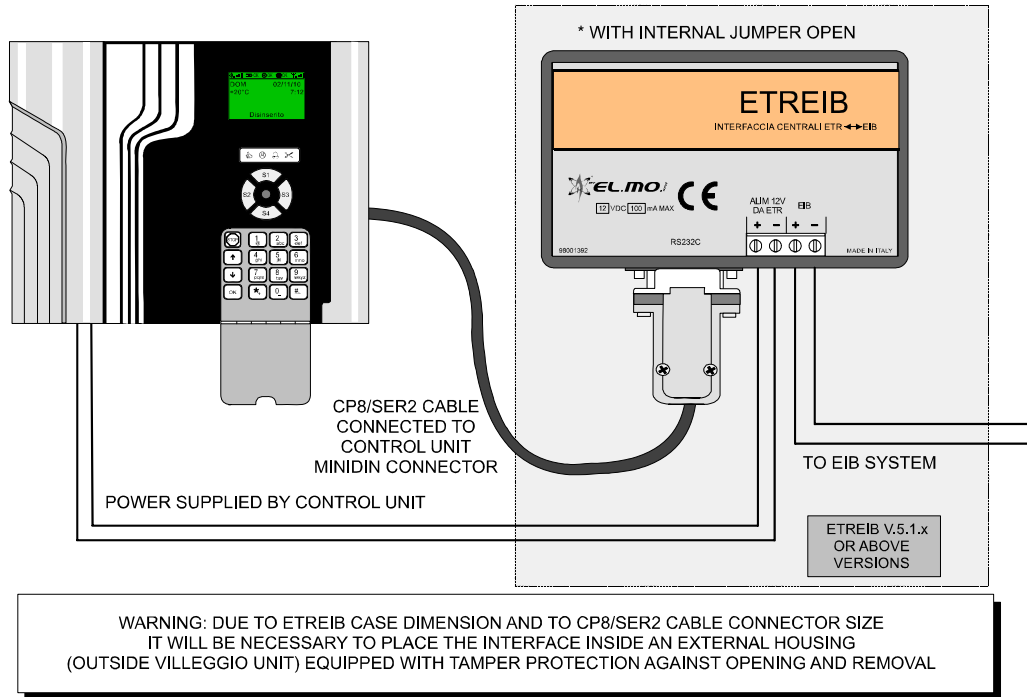
3. WIRINGS

Example of connection to ETR units:

COMPATIBLE ETR UNIT

ETR512

CP8/SER2 CABLE CONNECTED TO UNIT'S MINIDIN

ETREIB
INTERFACCIA CENTRALI ETR◀▶EIB

ALIM 12V DA ETR   EIB

* WITH INTERNAL JUMPER OPEN

TO EIB SYSTEM

IMPORTANT
THE INTERFACE MUST BE INSTALLED INSIDE UNIT'S HOUSING
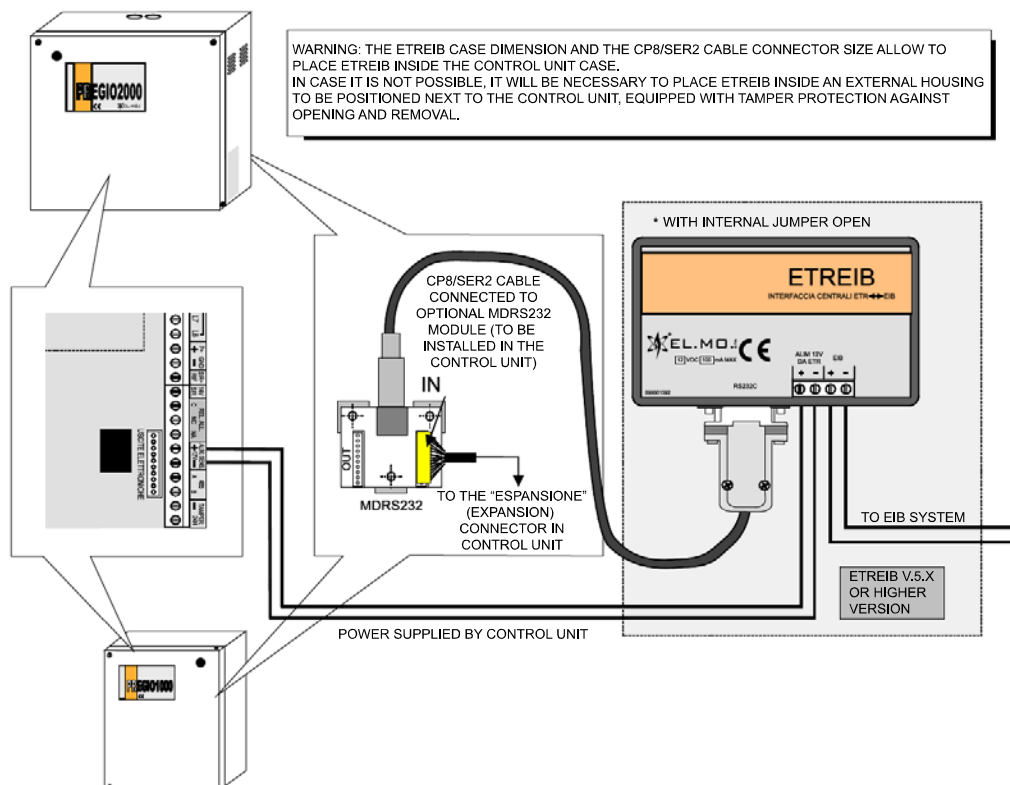
POWER SUPPLIED BY THE UNIT
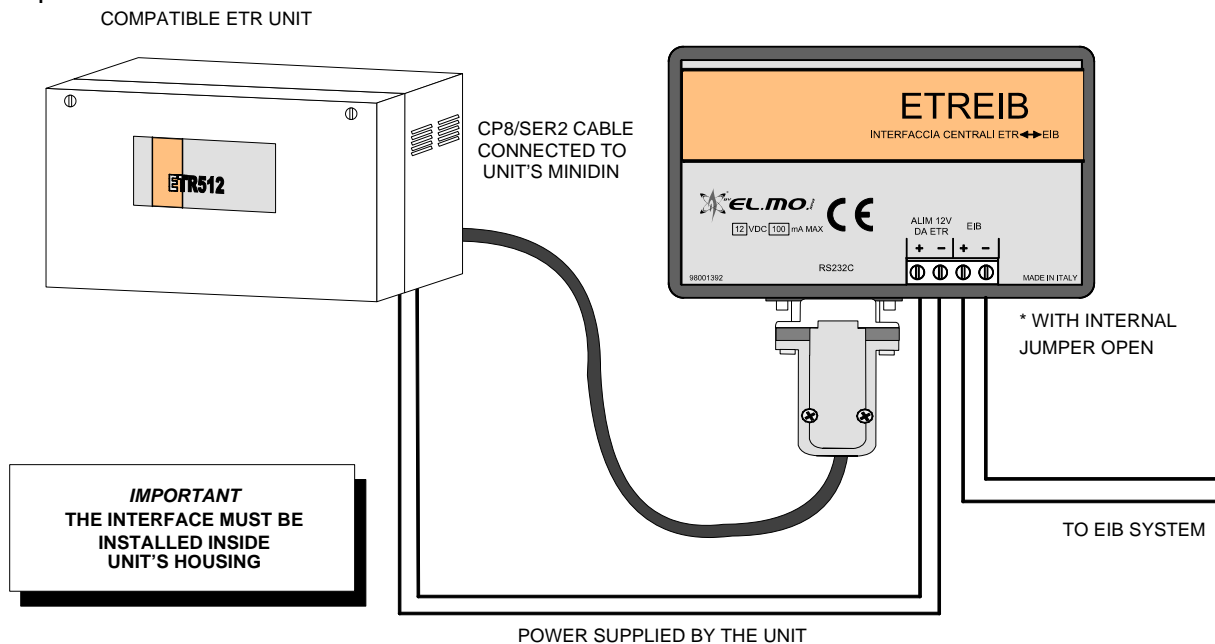
Example of connection to VILLEGGIO and VIDOMOBTRX units:

Example of connection to PREGIO2000 and PREGIO1000 units.


Connection of ETREIB with Titania, TitaniaPlus and TitaniaPlus2 control units.

Use the NullModem cable to realize the connection between the serial connector 1 (used for direct programming with the PC) and the ETREIB RS232 cable. As already stated for the ETR units, it is necessary to place ETREIB inside the metal case; the control unit will supply power to the interface. For information on configuration via BrowserOne, see "Titania configuration" on page 16.

Operations for ETREIB programming.
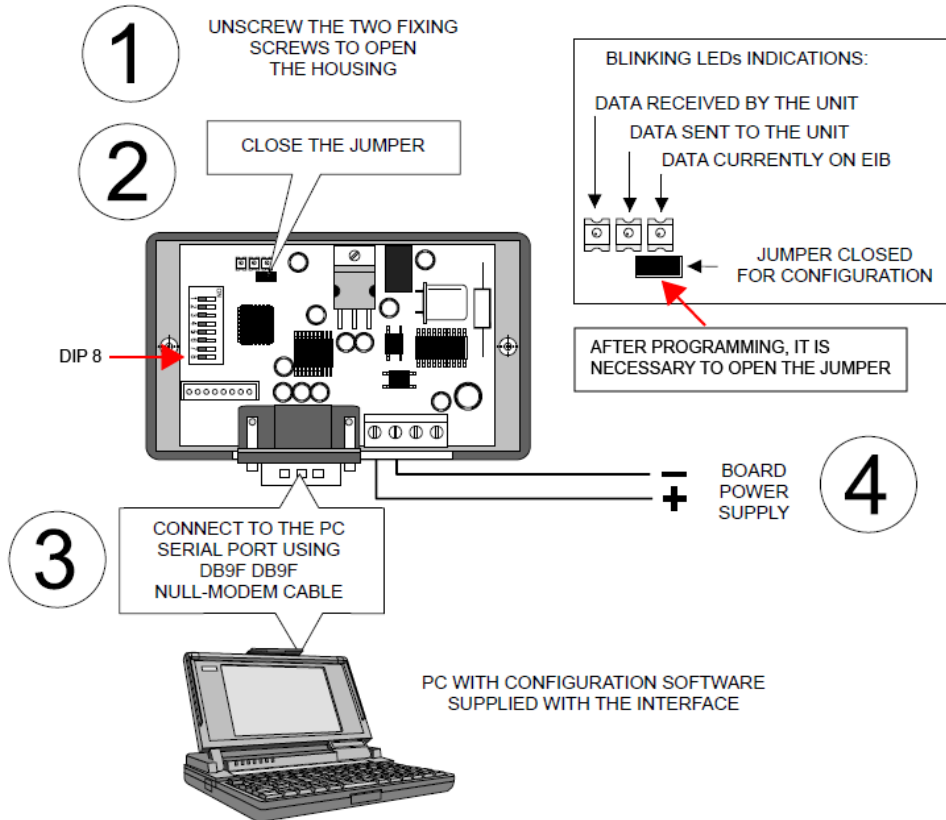
ETREIB reset operations

With reference to the above picture:

- Disconnect power supply from the board.
- Set dipswitch 8 to ON and close the jumper.
- Supply power again: the 3 LEDs will blink to indicate the default reset has been done.
- Set dipswitch 8 to OFF, open the jumper and switch the board off.

4. ETREIB INTERFACE USAGE

The EIB-based system must be properly completed in order to be able to use ETREIB interface and have the list of group addresses to which associate the control unit devices.

The configuration software does not use labels but displays only a list of the resources. Using the configuration software, it is possible to configure the ETREIB interface in order to perform the following actions:

- **Send EIB commands, that is Group Address (ex. 1/2/1), over the bus upon status change of unit zones, outputs and areas.**

- **Send EIB commands, that is Group Address (ex. 1/2/1), over the bus upon occurrence of particular events (ex. General alarm.)**

- **Send EIB commands, that is Group Address (ex. 1/2/1), over the bus combining the alarm status of zones and outputs groups (up to 4 per group.)**

- **Receive the following commands from the bus: zones arm/disarm, outputs enable/disable, alarmed unit zones arm/disarm.**

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As seen from the wiring diagrams in the previous chapter, the ETREIB interface is wired to:

- **the alarm unit via supplied CP8/SER2 serial cable on one side (for some control unit models, the NullModem cable can be used);**

- **the EIB bus directly, on the other side.**

The ETREIB interface requires **DC 12 V power.** According to the model in use, it shall be supplied either by the control unit or by an external power unit.

ETREIB interface has **two operating modes**:

- **Setup mode**
- **Standard operating mode**

4.1 Setup mode

When in **setup mode,** the interface is wired to the PC through the DB9F-DB9F NULL-MODEM serial cable (not supplied). The software application allows to configure the functioning parameters.
Note: during setup mode, it is not necessary to connect the module to the EIB bus.
During setup mode the following items can be configured:

- **Areas (*Aree*)**
- **Zones (*Ingressi*)**
- **Outputs (*Uscite*)**
- **Events (*Eventi*)**
- **System status (*Stati di sistema*)**
- **Zones and outputs groups (*Gruppi di ingressi e di uscite*)**
- **More (*Extra*)**

4.2 Standard operating mode

When in **standard operating mode**, the interface is wired to both the unit and the EIB bus and sends and receives commands over the bus according to its configuration status.

5. TOOLS REQUIRED FOR ETREIB INTERFACE USAGE

Installers / technicians shall have the following items available: A) a map of devices connected to the electrical system, that can also be exported with ETS3 application; B) the list of the connected control unit resources, that can be exported using the panel configuration browser; C) the interface configuration software.

# 6. SOFTWARE INSTALLATION, UNINSTALLING AND LAUNCHING

The product is supplied with a CD-Rom containing the relevant documents and the software application.

Note: the application version 5.x allows to control also ETREIB interfaces equipped with 5.x firmware. Nevertheless, in case of installation of ETREIB interfaces with 4.x fimware, you can use the software application to convert a 4.x configuration file to a 5.x one.

To install the application on to PCs equipped with Windows10, Windows 8, Windows 8.1 or Windows7 operating systems (**also with 64bit systems**) insert the CD-Rom inside the PC CD drive, go to \Software\ETREIB\ and run the file ETREIB_setup_x.x.x; then complete the software installation following the procedure displayed.

Note: to install the software on to PCs equipped with Windows 8.1, the .NET v.3.5 application is required: if it has not been installed yet, the installation process will be launched from Microsoft website.

To uninstall the application, select "Uninstall":
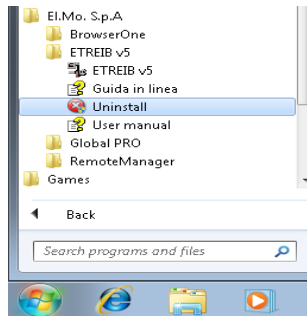
To start the software select the option **ETREIB v5**:
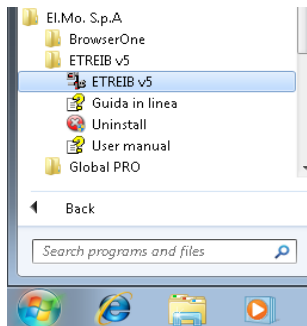
On the top area, the software window displays the standard settings of a communication software:

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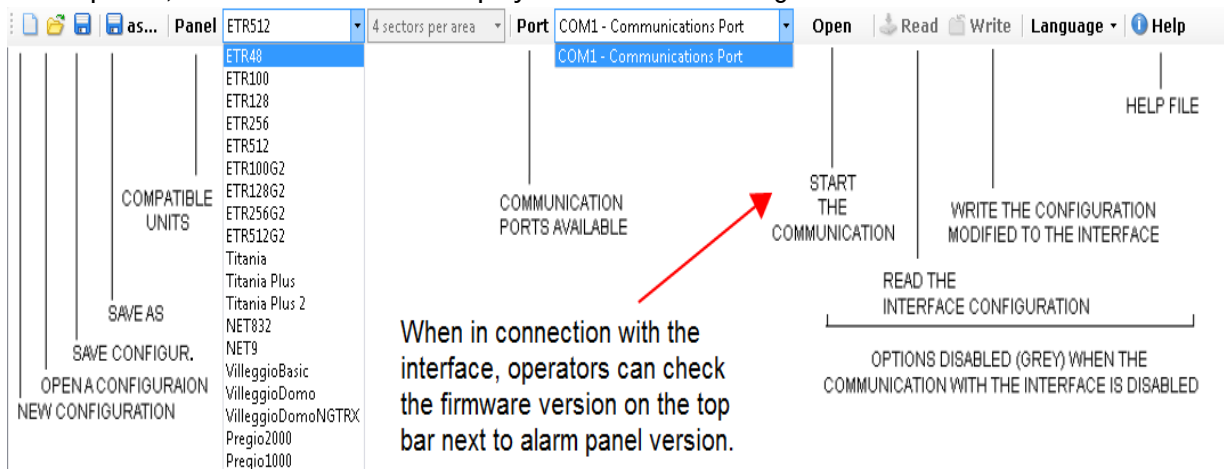
7. DESCRIPTION OF THE APPLICATION WINDOWS

7.1 Areas configuration

In the *AREAS* page, operators can set the following settings for each area/sector:

Options	Description
Area - Sector	Sector that is being operated at the moment. Note: the description cannot be modified.
Status Group Address	Group address sent by the module over the bus when the area/sector is armed or disarmed. The bit value will be <1> in case of arming and <0> in case of disarming.
Command Group Address	When sent over the EIB bus (for example by a switch), this group address will arm or disarm the sector. The device accepts only 1-bit commands. If <0> is sent, the sector will be disarmed; if <1> is sent, the sector will be armed.
Force	In case of arming command, if the sector cannot be armed (for example because there is an alarmed zone) the ETREIB module will not send the arming command. If *Force* option is active, the arming command will be sent anyway, also when the sector is not available for arming.
Enable disarming	Option to enable the disarming of the sector indicated (belonging to the relevant area) using a remote command sent by the interface. **Note:** available for ETREIB modules equipped with firmware v.2 or above.
Armable group address	Group address sent over the bus by the module when the sector arming status changes. If the sector can be armed, the value sent will be 1 bit, if the sector cannot be armed, the value sent will be 0 bit.

7.2 Zones configuration

Each alarm unit features a defined number of zones that support the connection of various detectors (ex. volumetric, magnetic contacts, etc.) Such detectors can be used to automate some procedures (ex. lights switch on.)

In the *ZONES* page, operators can set the following settings for each zone:

Options	Description
Zone	Zone that is being operated at the moment. Note: the description cannot be modified.
Status Group Address	Group address sent by the module over the bus when the zone changes its status (idle to alarmed and vice-versa.) The bit value sent will be <1> in case the zone turns to alarmed condition, <0> in case the zone turns to idle status.
Zone mode	Selection of the data sent when a change in a zone status occurs: - **Normal** = a value is sent upon all zone status changing. - **Rising edge ->1** = value <1> is sent upon zone/input rising edge. - **Rising edge ->0** = value <0> is sent upon zone/input rising edge. - **Falling edge ->1** = value <1> is sent upon zone/input falling edge. - **Falling edge ->0** = value <0> is sent upon zone/input falling edge.
Deactivation delay	Time interval the module waits before sending over the bus the notification that a zone has turned to idle status. If during such interval the zone enters the alarmed status again, the timer is reset and no data are sent over the bus (see examples for further details.)
Bypass Command Group Address	When sent over the EIB bus (for example by a switch), this group address will include or exclude the zone. The device accepts only 1-bit commands. If <0> is sent, the zone will be included; if <1> is sent, the zone will be excluded.
Bypass Status Group Address	Group address sent by the module over the bus when the zone changes its exclusion status. The device will send 1-bit commands: <1> in case the zone is included; <0> in case the zone is excluded.

Example screen for the deactivation delay.

	Zone 1	0/0/0	Normal	▼	No delay ▼	0/0/0	0/0/0
	Zone 2	0/0/0	Normal	▼	No delay	0/0/0	0/0/0
	Zone 3	0/0/0	Normal	▼	10 sec	0/0/0	0/0/0
	Zone 4	0/0/0	Normal	▼	20 sec / 30 sec	0/0/0	0/0/0
	Zone 5	0/0/0	Normal	▼	40 sec	0/0/0	0/0/0
	Zone 6	0/0/0	Normal	▼	50 sec / 1 min	0/0/0	0/0/0
	Zone 7	0/0/0	Normal	▼	2 min	0/0/0	0/0/0
	Zone 8	0/0/0	Normal	▼	3 min	0/0/0	0/0/0
	Zone 9	0/0/0	Normal	▼	4 min / 10 min	0/0/0	0/0/0
	Zone 10	0/0/0	Normal	▼	15 min	0/0/0	0/0/0
	Zone 11	0/0/0	Normal	▼	20 min / 25 min	0/0/0	0/0/0
	Zone 12	0/0/0	Normal	▼	30 min	0/0/0	0/0/0

7.3 Outputs configuration

Output	Status Group Address	Deactivation delay	Command Group Address
▶ Output 1	0/0/0	No delay ▼	0/0/0
Output 2	0/0/0	No delay	0/0/0
Output 3	0/0/0	10 sec	0/0/0
Output 4	0/0/0	20 sec / 30 sec	0/0/0
Output 5	0/0/0	40 sec	0/0/0
Output 6	0/0/0	50 sec / 1 min	0/0/0
Output 7	0/0/0	2 min	0/0/0
Output 8	0/0/0	3 min	0/0/0
Output 9	0/0/0	4 min / 10 min	0/0/0
Output 10	0/0/0	15 min	0/0/0
Output 11	0/0/0	20 min / 25 min	0/0/0
Output 12	0/0/0	30 min	0/0/0
Output 13	0/0/0	No delay ▼	0/0/0
Output 14	0/0/0	No delay ▼	0/0/0
Output 15	0/0/0	No delay ▼	0/0/0

Each control unit features a defined number of outputs that support the connection of various devices controllable via relays. The status of such devices can be duplicated and the devices can be controlled via bus using the options in this window. In the *OUTPUTS* page, operators can set the following settings for each output:

Options	Description
Output	Output that is being operated at the moment. Note: the description cannot be modified.
Status Group Address	Group address sent by the module over the bus when the output changes its status (enabled to disabled, and vice-versa) The bit value sent will be <1> in case the output is enabled, <0> in case the output is disabled.
Deactivation delay	Time interval the module waits before sending over the bus the notification that an output has been disabled. If during such interval the output is activated again, the timer is reset and no data are sent over the bus (see examples for further details.)
Command Group Address	When sent over the EIB bus (for example by a switch), this group address will enable or disable the output. The device accepts only 1-bit commands. If <0> is sent, the output will be disabled; if <1> is sent, the output will be enabled.

Usage example:

Example no. 1: switching on of a light in case of a zone alarm only when the panel is armed.

- Configure the panel (using the browser) so that it will duplicate the volumetric detector zone (**ex. I. 52**) on to the corresponding output, but only when the panel is armed.
- Set the status group address corresponding to the control of the light on the bus on to the output corresponding to the volumetric detector (ex. 1/2/2.)
- Set a 2-minute time delay, in order to make the light switch off 2 minutes after the alarm occurrence.

7.4 Events configuration

Event	Event Group Address	Set Command	Reset Command
System start-up(RESET only)	0/0/0	None	None
Pre-alarm(SET only)	0/0/0	None	None
Intrusion alarm (Intrusion alarm reset)	0/0/0	None (None / Off / On)	None
Tamper alarm (Tamper alarm reset)	0/0/0		None
Fire alarm (Fire alarm reset)	0/0/0	None	None
Personal attack alarm (Personal attack alarm reset)	0/0/0	None	None
Medical alarm (Medical alarm reset)	0/0/0	None	None
Personal help request (Personal help request reset)	0/0/0	None	None
Gas alarm (Gas alarm reset)	0/0/0	None	None

The window displays the list of events that can be generated by the control unit. All events can occur both in SET and RESET mode: SET when the event occurs, RESET when it is cancelled. For example, when the "General Alarm Relay" event occurs, the command SET will be sent over the bus; on the contrary, when the "Reset General Alarm" event occurs, the command RESET will be sent over the bus.

When in the "Set / Reset Command" fields the option "None" is left or set, no group address will be sent over the bus. If in the same field the options ON or OFF are set, a 1-bit group address will be sent: the value will be <1> in case of ON option, <0> in case of OFF option.

All events have the corresponding RESET event, except for those marked by "only SET" or "only RESET".

In the EVENTS page, operators can set the following settings for each event:

| Options	Description
Event	Description of the event that is being operated at the moment. Note: the description cannot be modified.
Event Group Address	Group address sent over the bus by the module when the event occurs.
Set Command	Command sent together with the group address when the SET event occurs.
Reset Command	Command sent together with the group address when the RESET event occurs.

7.5 System status configuration

The control unit sends data on its status (i.e. main anomalies) to the ETREIB module regularly. This window allows to configure the actions to be performed over the EIB bus when anomalies occur (e.g. system tamper.)

In the *STATUS* page, operators can set the following settings for each system anomaly:

Options	Description
Status	Description of the control unit status.
Status Group Address	Group address sent by the module over the bus when the corresponding anomaly changes its status. The bit value sent will be <1> in case the anomaly occurs, <0> in case the anomaly ends.

7.6 Configuration of input/output groups
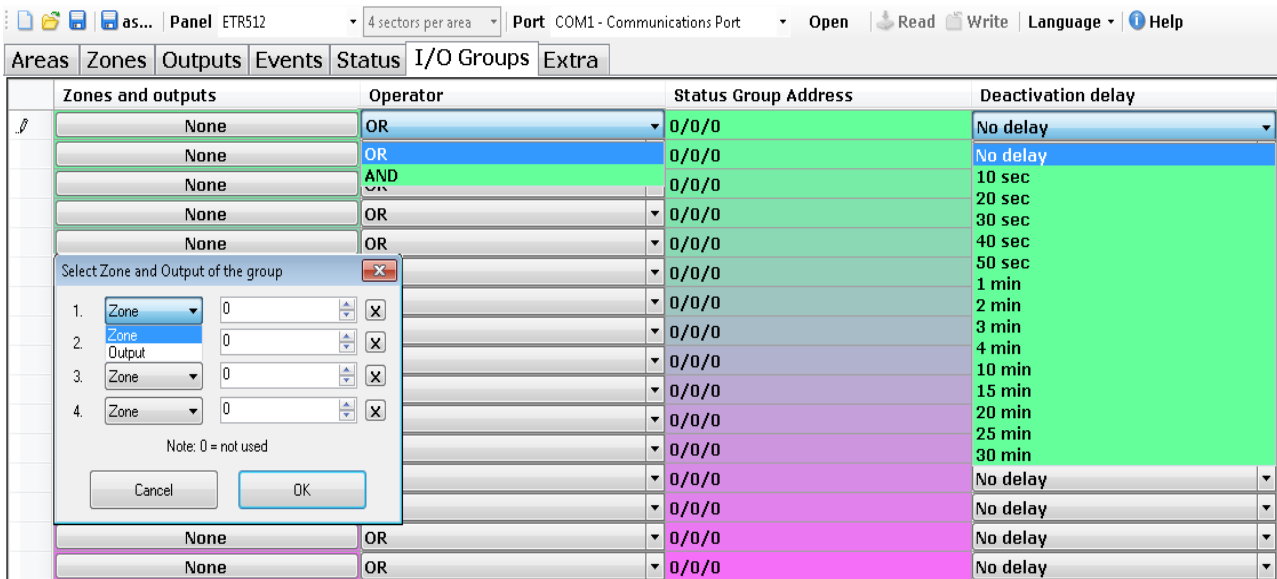
Each alarm unit features a defined number of zones and outputs that support the connection of various detectors (ex. volumetric, magnetic contacts, etc.) Such detectors can be used to automate some procedures (ex. lights switch on.) However, in some cases, the combination of the data coming from more than one zone, and/or output, is required to perform special actions.

Using the module it will be possible to create 16 groups of up to 4 zones each.
In the *I / O GROUPS* page, operators can set the following settings for each group:

Options	Description
Ingressi / Uscite	Zones and outputs included in the group.
Operatore	Operator (AND / OR) to be used for group status change. When OR is set, the group enters the alarmed condition when only ONE zone/output is alarmed. On the contrary, when AND is set, the group will enter the alarmed condition when all zones/outputs enters the alarmed condition (see examples below for further details.)
Group address di stato	Group address sent by the module over the bus when the group changes its status (idle to alarmed and vice versa.) The bit value sent will be <1> in case the group enters the alarmed condition, <0> in case the group returns to the idle status (see examples below for further details.)
Ritardo di disattivazione	Time interval the module waits before sending over the bus the notification that a group is now in idle status. If during such interval the group is alarmed again, the timer is reset and no data are sent over the bus (see examples for further details.)

Usage examples:

Example no. 1: lights control in a room equipped with three volumetric detectors
- Setup the zones corresponding to the 3 volumetric detectors (ex. I. 22, I. 25, I. 29)
- Set OR operator
- Setup the status group for the control of the room lights (ex. 1/2/4)
- Set a 2-minute disable delay so that the light will turn off only when there have been no movements inside the room for a period of 2 minute. If a movement is detected during such time interval, the light will not be switched off.

Example no. 2: light control with a light detector (connected to ETR)

- Setup the zones corresponding to the volumetric and the light detectors (ex. I. 24, I. 25)
- Set AND operator
- Set a 2-minute disable delay so that the light will turn off only when there have been no movements inside the room for a period of 2 minute. If a movement is detected during such time interval, the light will not be switched off.

Example no. 3: light control only when the alarm panel is disarmed
- Using ETR browser, set the duplication of zones on to outputs only when the control unit is disarmed (see control unit manual)
- Set the outputs corresponding to volumetric detectors (ex. O. 18, O.19)
- Set OR operator
- Set a 2-minute disable delay so that the light will turn off only when there have been no movements inside the room for a period of 2 minute. If a movement is detected during such time interval, the light will not be switched off.

7.7 Group Address multiple change

Area - Sector	Status Group Address	Command Group Address	Force	Enable disarming	Armable Group Address
Area 1 Sector 1	0/0/0	0/0/0	☐	☐	0/0/0
Area 1 Sector 2	0/0/0	0/0/0	☐	☐	0/0/0
Area 1 Sector 3	0/0/0	0/0/0	☐	☐	0/0/0

To make the configuration procedure faster, operators can modify group addresses in sequence.

Select the group addresses you wish to change using the mouse and keeping the left button pressed. Once selected, a window will appear where operators can insert the starting address and the interval between an address and the following one.
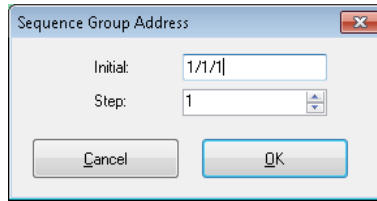

Example: the operator wishes to set the following sequence:

<div align="center">

1/1/1

1/1/2

1/1/3

1/1/4

1/1/5

</div>

Select the five fields using the mouse and the left button pressed then set the following window as shown:

Press OK: the modified data fields will automatically be filled and indicated with the white colour.

Area - Sector	Status Group Address	Command Group Address	Force	Enable disarming	Armable Group Address
Area 1 Sector 1	0/0/0	0/0/0	☐	☐	1/1/1
Area 1 Sector 2	0/0/0	0/0/0	☐	☐	1/1/2
Area 1 Sector 3	0/0/0	0/0/0	☐	☐	1/1/3
Area 1 Sector 4	0/0/0	0/0/0	☐	☐	1/1/4
Area 2 Sector 1	0/0/0	0/0/0	☐	☐	1/1/5
Area 2 Sector 2	0/0/0	0/0/0	☐	☐	0/0/0
Area 2 Sector 3	0/0/0	0/0/0	☐	☐	0/0/0

7.8 Extra

7.8.1 Reset Group Address

In case of special applications, the device is reset by a ON/OFF command in order to synchronize again zones and outputs in case of malfunctioning of the control system.

7.8.2 ETREIB source addressing

Option to set / modify the physical address of ETREIB interface on KNX bus.
**Note:** available for ETREIB equipped with firmware version 3 or above.

7.8.3 Login

The installer ID code used **must be digited** for the control unit controlled via ETREIB interface. The login procedure is currently supported by ETR v.5.x, ETR G2, NET, Titania, TitaniaPlus, TitaniaPlus2 version 4.x or higher, Pregio1000 and Pregio1000BM, Pregio2000, Villeggio and VIDOMOBTRX control units.

Note: available for ETREIB equipped with firmware version 3 or above.
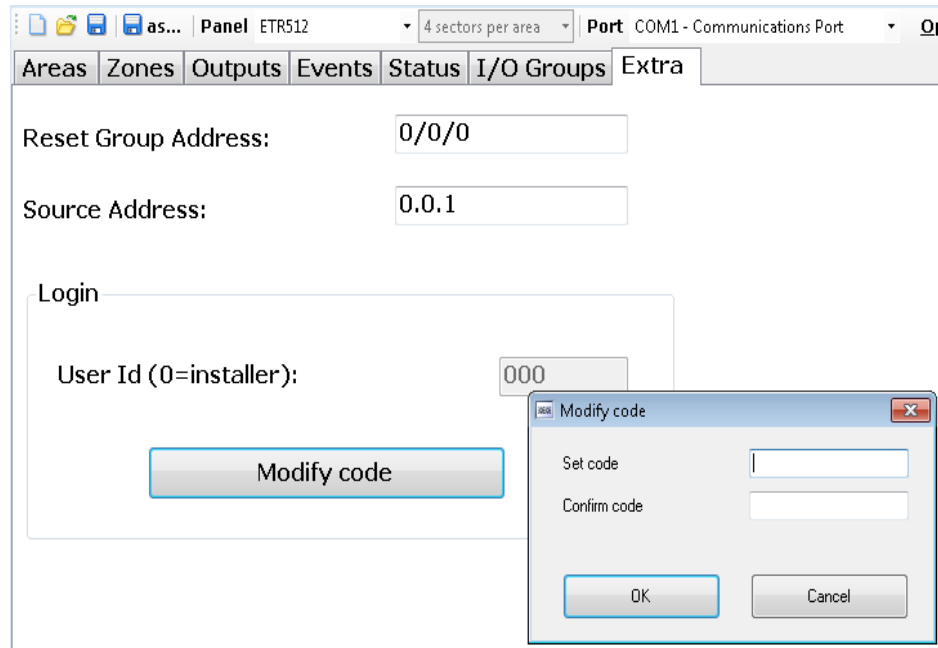
7.9 Configuration of sectors within areas

This firmware version allows to select the number of sectors in each area, only for VIBASIC, VIDOMO, VIDOMOBTRX and Pregio control unit (as indicated by the arrow).

The new software version also includes the update of the help files.

7.10 Titania configuration

In order to use ETREIB with Titania, TitaniaPlus, TitaniaPlus2 (version 4.x or higher) control units, it is necessary to load the compatible module in BrowserOne, enter the "Settings" page, select "Admin mode OFF" and deselect "Disable maintainer after a timeout".

8. NOTES

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