



## **RIVER, RIVER2, RIVER3**

Serial line concentrators for  
ETR series, TITANIA series and  
other compatible control units

090011230



IMQ-SISTEMI DI SICUREZZA

IT08020000001624



## FOREWORD

### FOR INSTALLERS

Please follow carefully the specifications about 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 performance levels that should be proportioned to the user needs. Have the user read carefully the instructions provided in this document.

### FOR USERS

Carefully check the system functionality at regular intervals 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 designed, 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:

### **Serial line concentrators for ETR series, TITANIA series and other compatible control units**

Any use other than the one mentioned above has not been forecast and therefore it is not possible to guarantee the correct functioning of the device. Similarly, any other use of this technical manual other than the one it has been compiled for - that is: to illustrate the devices technical features and operating mode - is expressly prohibited.

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 destined 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).

## EU DECLARATION OF CONFORMITY

The product complies with current European EMC and LVD directives. The full text of the EU declaration of conformity is available at the following Internet address: [elmospa.com](http://elmospa.com) – registration is quick and easy.

## DISPOSAL INSTRUCTIONS - USER INFORMATIONS



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

The TITANIA series, ETR series, NET series, VIDOMO series, PREGIO series and ET4PLUS intrusion detection control units can control a high number of inputs connected either to the main board or to several expansion modules called *concentrators*. In order to optimise the routing and installation of the cables, it is suggested to use any combination of two-zone and eight-zone serial concentrators, to be placed away from the main board; this manual refers to three different eight-zone models with different housings and performance levels:

**RIVER:** 8 triple-balanced, double-balanced, NC or fast inputs; performance level I; plastic housing.

**RIVER2:** 8 triple-balanced, double-balanced, NC or fast inputs; performance level I or II; metallic housing with opening and removal tampers.

**RIVER3:** 8 triple-balanced, double-balanced, NC or fast inputs; performance level I, II or III; metallic housing with opening and removal tampers and anti-drilling inertial detector.

Thanks to the RS-485 serial interface, the RIVER devices (henceforth “RIVER”) make remote positioning possible and enable for an extremely versatile input programming and powerful addressing. The highest performance is achieved with a TITANIAPLUS control unit: up to 126 RIVERS for wiring up to 1024 detectors.


Any RIVER concentrator makes it possible to optimise the installation operations and the cable routing thanks to its 8 programmable inputs and to its connector with 8 electronic outputs for connecting ETRREL or an ETRREL4 relay module.

The RIVER concentrator can adequately replace any RIVERFAST or RIVERFASTPLUS concentrators.

It is possible to use RIVER only as a module for the remote repetition of signals from the main concentrator, as long as both belong to the same serial line; appropriate internal LEDs provide the serial communication status and the status of the Tampers, the configuration of the inputs makes double and triple balancing installations possible even on existing systems when changing different brand control unit and concentrators.

**Note:** The RIVER concentrator, **if equipped with fw. 1.5 or higher**, is also compatible with the serial lines of CP80, CP90, CP100 and ET8/48x series control units and can replace the TR8 concentrator for standard double-balanced inputs or NC-programmed inputs only.

## 2. FEATURES

<b>Model:</b>	<b>RIVER, RIVER2, RIVER3</b>
<b>CEI79-2 performance level:</b>	I, II (for RIVER2 and RIVER3 only) and III (for RIVER3 only).
<b>EN 50131-3 compliance:</b>	grade 2 or 3 according to the used control unit or system, environmental class II.
<b>Power supply:</b>	12 V  (from 10 to 15V).
<b>Power consumption:</b>	25 mA with balanced inputs; 35 mA with NC inputs.
<b>Number of inputs:</b>	8
<b>Lines interface:</b>	settable as double-balanced, single-balanced for fast inputs, triple-balanced and normally closed. The diagrams in the manual show how to connect the resistors in order to make the concentrator compatible with several connection standards.
<b>Outputs:</b>	Connector for 8 electronic outputs compatible with ETRREL or ETRREL4 (for 4 outputs).
<b>Board settings:</b>	selector for setting the address and the repetition mode; separate selector for the choice of the interface type and for excluding the Tamper protection (for use in larger, self-protected housings).
<b>Indicators:</b>	signalling LEDs for the transmission to the control unit activity.
<b>Connections:</b>	terminals for serial line and inputs, connector for the electronic outputs.
<b>Case:</b>	ABS plastic (for RIVER) or metal (for RIVER2 and RIVER3).
<b>Cable type to use:</b>	2×0.75 mm <sup>2</sup> + 2×0.22 mm <sup>2</sup> (power supply + signal) shielded, flame-retardant cable, for long distances use 2×1 mm <sup>2</sup> + 2×0.5 mm <sup>2</sup> or higher sections. Max length 1 km.



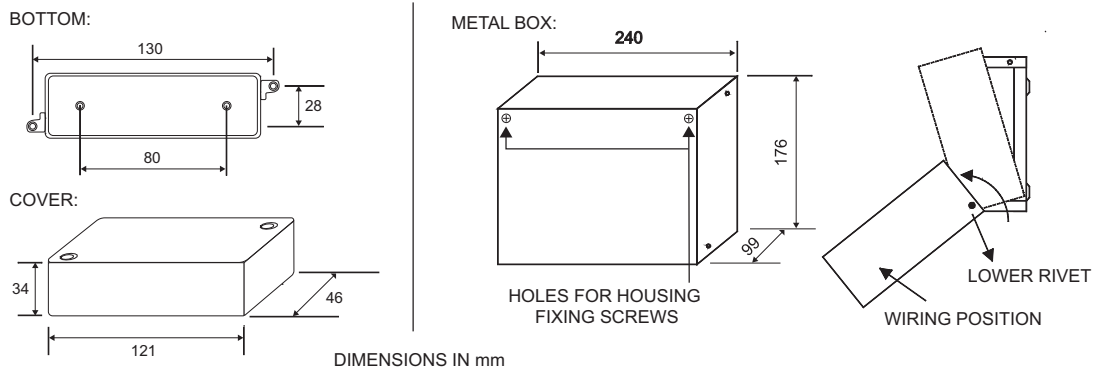
**Operation temperature and humidity:** +5° / +40°C certified by IMQ-SISTEMI DI SICUREZZA.  
-10° / +55°C certified by the manufacturer — 93% r.h.

**Dimensions and weight:** see image.

**Parts supplied:** 16 × 1500 Ω + 8 × 1200 Ω + 8 × 1000 Ω + 8 × 680 Ω resistors, technical manual, side fixing brackets (not assembled), 2 screws for board fixing (2.9 × 6.5 mm).

The RIVER, RIVER2 and RIVER3 concentrators are certified "IMQ sistemi di sicurezza".

### View of the housing

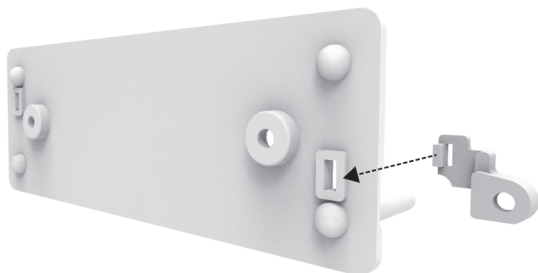


Weight: 85g.

Weight: 1,48 kg

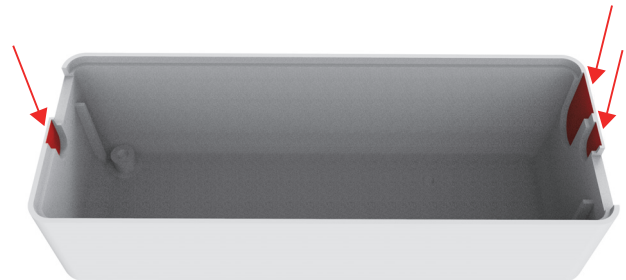
### Side bracket assembling (optional)

Slot each bracket into its designated area.  
See picture below.

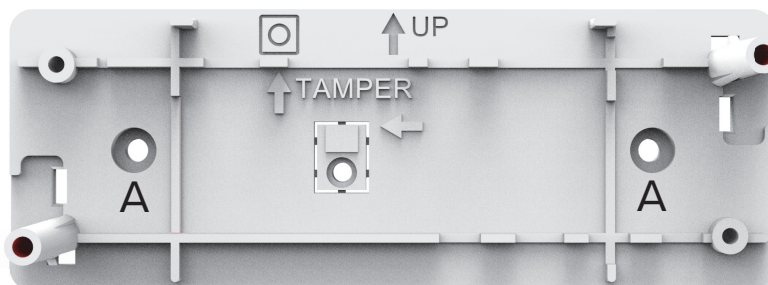


### Cable feeding

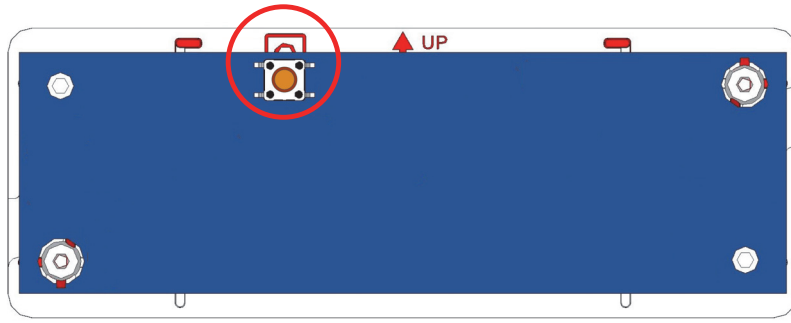
Remove the plastic from one of the areas indicated below (on the inner side of the cover).



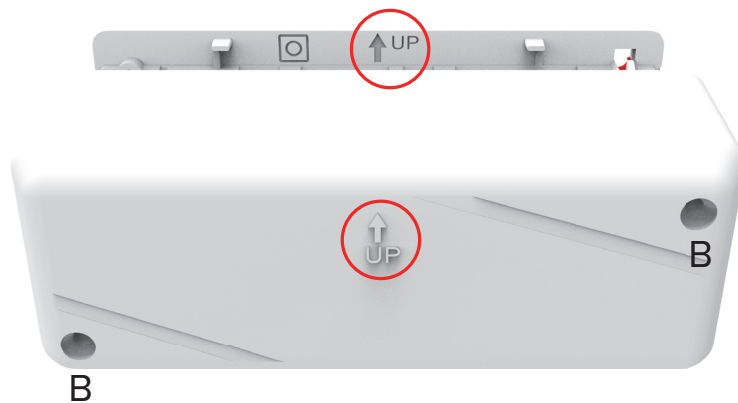
### Assembling operations



Fix the case base to the mounting surface with screws and plugs, using holes A.  
Make sure the UP arrow is on the upper side.



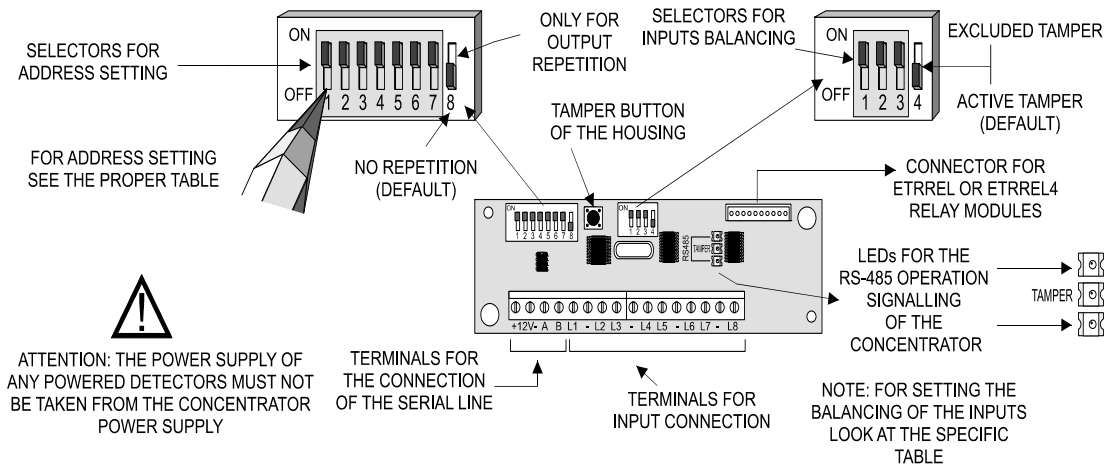
Insert the PCB on the plastic supports (the board in the picture is for reference only).  
 Make sure the tamper switch against opening (on board top) is on the upper side as indicated by the symbol reported on case base.



Position the cover on the base.  
 Make sure the arrow on the cover is on the upper side, like the one on the base.  
 Insert screws on B holes to close the cover. Make sure the spring for tamper protection fits properly.

### 3. ELECTRICAL CONNECTIONS

Explanation of the RIVER board.

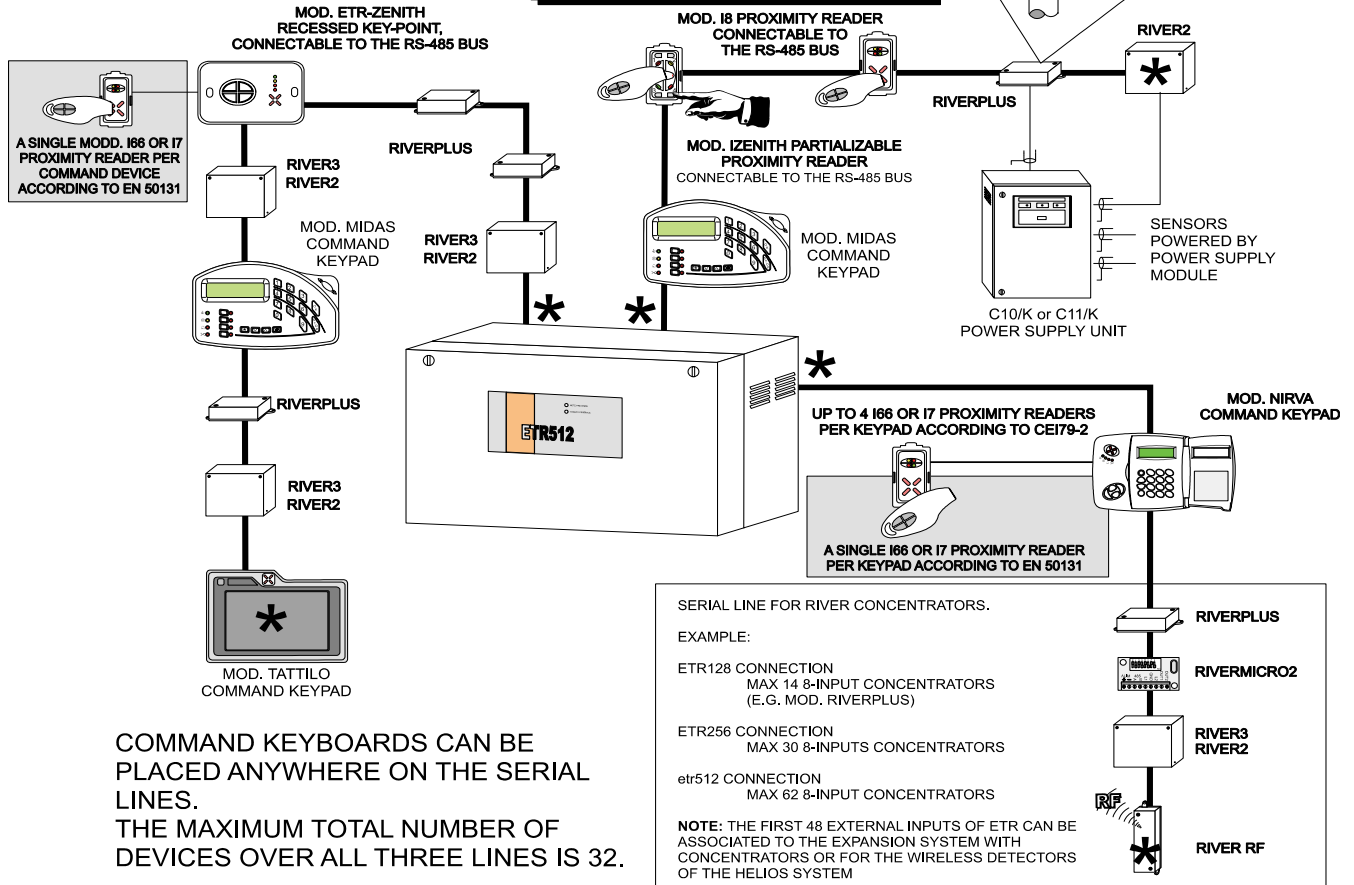




### General scheme of serial lines of ETR series, example with ETR512.

**ATTENTION:**  
THE DIAGRAM SHOWS THE GENERIC CONNECTION OF AUXILIARY POWER SUPPLIES, FOR EXAMPLE MOD. C11/K. ALWAYS INSTALL THEM NEAR TO THE POWERED DEVICES, INCLUDING THE CONCENTRATOR CONNECTED TO THE RS-485 SERIAL LINE.

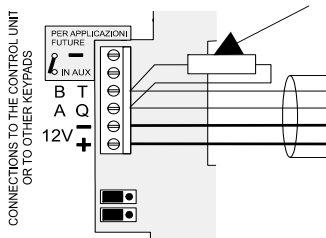
EACH SERIAL LINE CAN HAVE A TOTAL LENGTH OF 1000 METRES. USE CABLES WITH AN APPROPRIATE CROSS-SECTION. USE ANTITHEFT CABLES FOR INTRUSION DETECTION SYSTEMS WITH A  $2 \times 1 + 2 \times 0.5 \text{ mm}^2$  CROSS-SECTION. FOR SHORT SECTIONS, USE CABLES WITH A  $2 \times 0.75 + 2 \times 0.22 \text{ mm}^2$  CROSS-SECTION



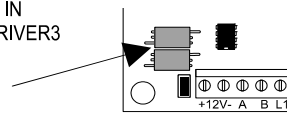
COMMAND KEYBOARDS CAN BE PLACED ANYWHERE ON THE SERIAL LINES.  
THE MAXIMUM TOTAL NUMBER OF DEVICES OVER ALL THREE LINES IS 32.

\* THE MARKED DEVICES HAVE TO BE EQUIPPED WITH AN END OF LINE RESISTOR

THE NIRVA KEYPAD IS TERMINATED WITH A 680 Ω 1/4 W RESISTOR CONNECTED TO THE TERMINAL

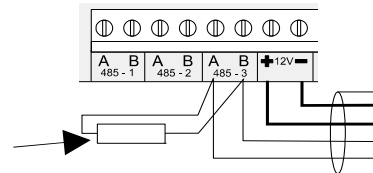


CLOSE THE JUMPER IN RIVER, RIVER2 AND RIVER3 CONCENTRATORS



#### MAIN BOARD OF THE CONTROL UNIT

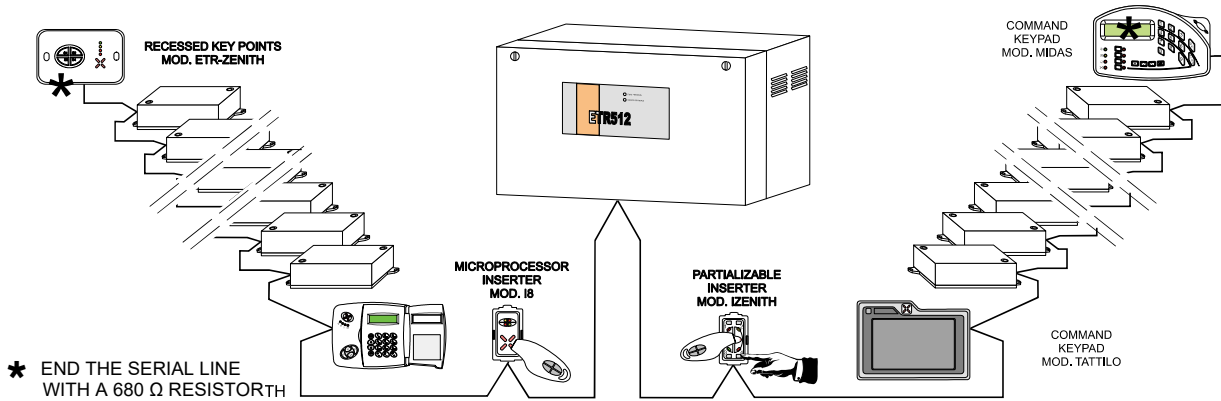
INSTALL A 680 Ω RESISTOR AT THE STARTING TERMINALS OF EVERY SERIAL LINE





Wiring variation on a serial line.

The following image shows **the only admitted wiring variation** in the serial line of a control unit compatible with RIVER concentrators. The example uses an ETR512 control unit.



SERIAL LINE INCLUDING. RIVERPLUS CONCENTRATORS AND NIRVA, TATTILO AND MIDAS KEYPADS. THE CONTROL UNIT CONTAINS THREE TERMINAL OUTPUTS FOR THREE DIFFERENT RS-485 SERIAL LINES (1, 2, 3).

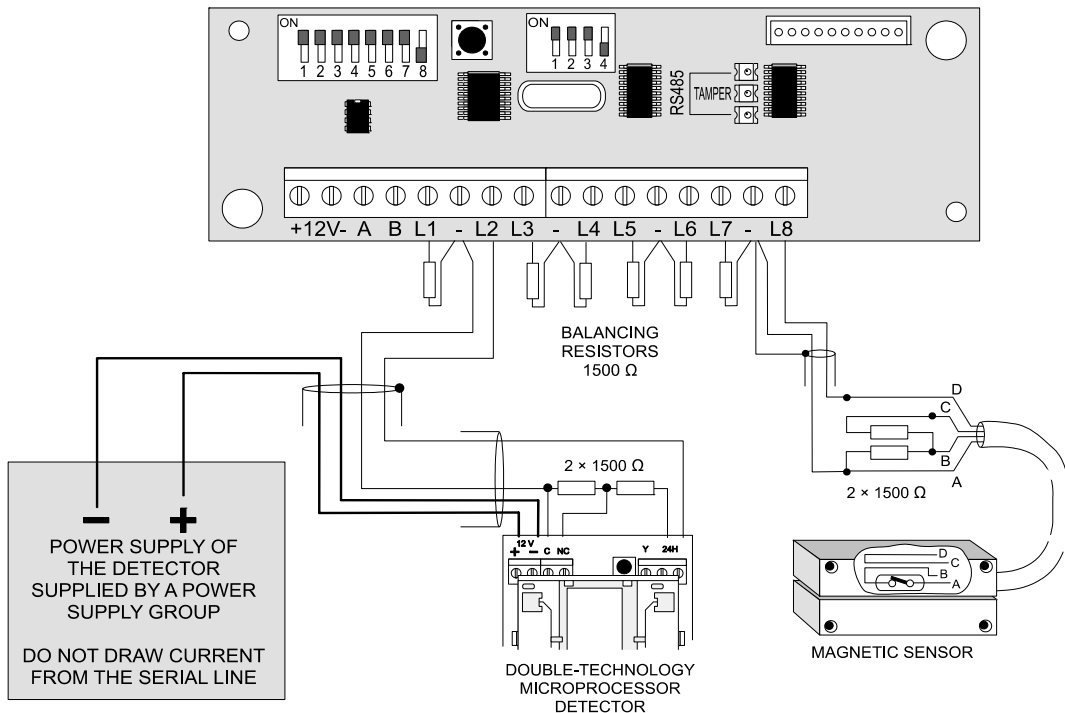
«T» CONNECTION SCHEME WHERE THE PILOT CIRCUIT FOR THE SERIAL LINE, INTEGRATED IN THE CONTROL UNIT, IS CONSIDERED AS AN INTERMEDIATE CONCENTRATOR CIRCUIT.

THE COMMAND KEYPADS CAN BE PLACED IN ANY POSITION OF THE SERIAL LINE. MAKE SURE THAT THE TOTAL NUMBER OF DEVICES OVER ALL THREE LINES IS EQUAL TO OR LESS THAN 32.

IT IS NECESSARY TO PROVIDE A REMOTE AUXILIARY POWER SUPPLY UNIT TO OBTAIN THE PLANNED SYSTEM AUTONOMY.

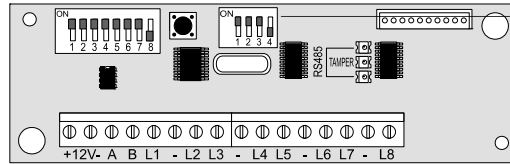
**Note:** any number of branches is allowed, provided that their total length is equal or less than 1 km. As shown in the diagram above, the two 680 Ω end of line resistors shall be placed at each end of the longest path.

Input connection example.



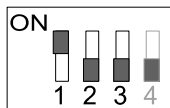
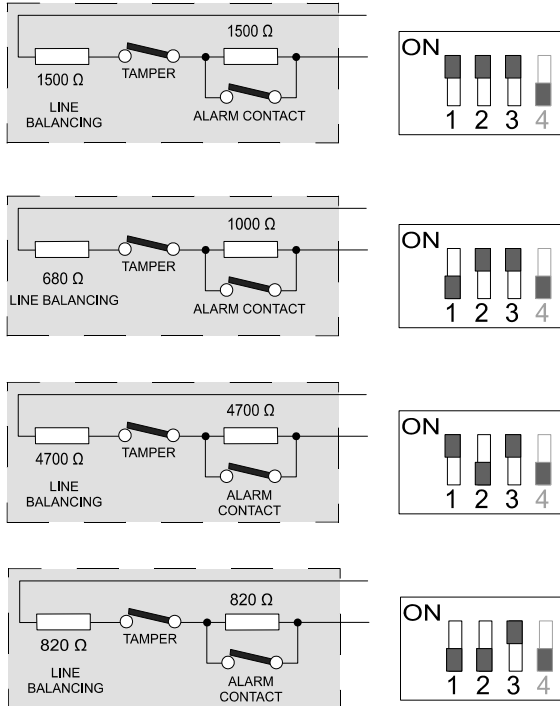


## Settings for inputs balance.



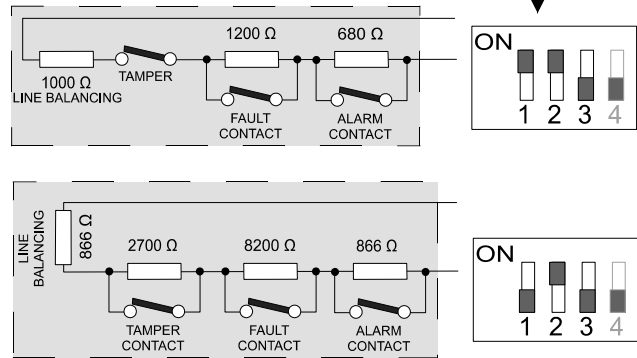
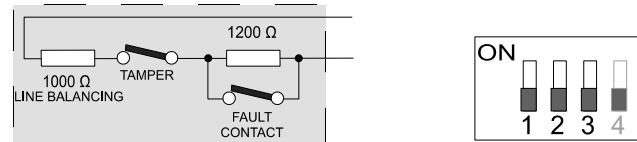
TYPICAL WIRING EXAMPLES FOR CONCENTRATOR INPUTS  
THE BALANCING SETTINGS ARE VALID FOR ALL 8 INPUTS

## INPUT WITH STANDARD DOUBLE BALANCING

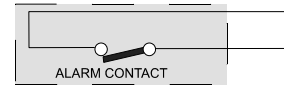


DO NOT USE  
THIS SETTING

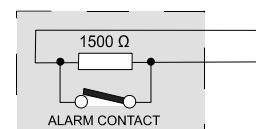
## INPUT WITH STANDARD TRIPLE BALANCING

INPUT WITH STANDARD DOUBLE BALANCING  
FOR CP80, CP90, CP100 AND ET8/48XX CONTROL UNITSINPUTS WIRING OF THE CONCENTRATOR  
WITH DEFINITION CARRIED OUT WITH  
THE CONTROL UNIT SOFTWARE

INPUT PROGRAMMED  
AS NC  
(CEI79-2 1<sup>st</sup> LEVEL)



INPUT SET AS "FAST"  
FOR THE CONNECTION OF  
SEISMIC SENSORS OR  
SHUTTER CONTACTS.  
SENSITIVITY AND  
INTEGRATION ARE SET  
VIA SOFTWARE



Several kinds of balancing are available for when it is necessary to replace the control unit and the concentrators, but it is not desirable to also change the line balancing, not changing the existing connections towards existing sensor circuits; the various types of input balancing ensure compatibility with most of the existing configurations.

**Note:** fast inputs can be connected and programmed only if the control unit manages them.

**Note:** triple balancing can only be used with compatible control units. Do not make triple-balance connections if the control unit only manages double balancing.

**WARNING:** Any unused inputs must be terminated with an end of line resistance which value shall correspond to the setting defined by selectors 1 - 2 - 3.





Fast inputS connections, example

### Explanatory notes for the programming and for the functions of fast inputs on a concentrator with v.1.4 or higher firmware.

Setting an input as “fast” makes it possible to manage the signals coming from inertial or rolling shutter sensors; these sensors work by generating a series of voltage pulses on the line that connects them to the control unit input terminal and therefore require a dedicated management.

The features of the signals generated by these sensors vary depending on the sensor model and on installation conditions; therefore, fast inputs are configured by setting sensitivity and integration parameters.

The default value (10 for both parameters) is suitable for ordinary situations and for most rolling shutter detectors on the market.

For inertial sensors or for peculiar situations, it is appropriate to change the sensitivity and integration parameters in order to obtain an optimal response by the input.

**Sensitivity:** this parameter is the main parameter that determines the detection of the alarm condition. A low value of sensitivity requires a more prolonged activation of the contact and a higher pulse generation by the same to cause the alarm signal. Conversely, a higher value of sensitivity enables a more immediate generation of the alarm with a lower count of pulses.

**Integration:** this parameter determines the time within which the alarm condition must be detected in order to be considered valid. A low integration value extends the detection time, a high integration value shortens it. In most cases, the optimization of the system performance is carried out by acting exclusively on the sensitivity parameter while leaving the integration to the default value, which is 10 (typically corresponding to 15-30 seconds of time for the detection).

### Use with rolling shutter sensors

To obtain a faster response, increase the sensitivity in steps of 10 (20, 30, 40, ...), it is not recommended to increase the sensitivity beyond 40 in order to avoid false alarms due to unwanted sensor switching.

To detect even very slow motions of the rolling shutter, it is possible to halve the integration value bringing it to 5. In case of false alarms, set a sensitivity of less than 20; in some cases it is also possible to increase the integration to 15 in order to reduce the detection time window.

**ATTENTION:** A low sensitivity value along with a high integration value makes the input less sensitive to any slow movements of the rolling shutter.

### Use with inertial sensors

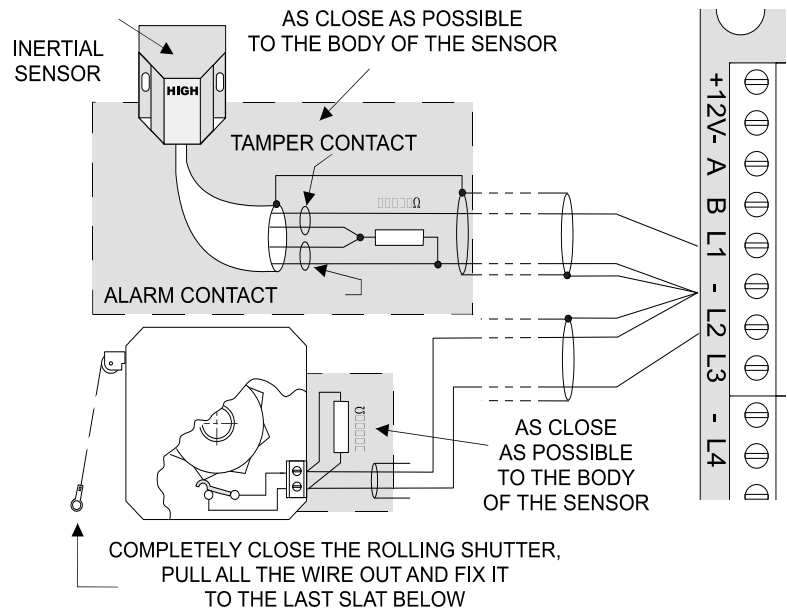
We recommend setting a sensitivity greater than or equal to 40 (generally corresponding to 2 hits).

To obtain a faster response, increase the sensitivity in steps of 10 (50, 60, ...).

To get an alarm with a single shot, set the sensitivity to 50 or higher.

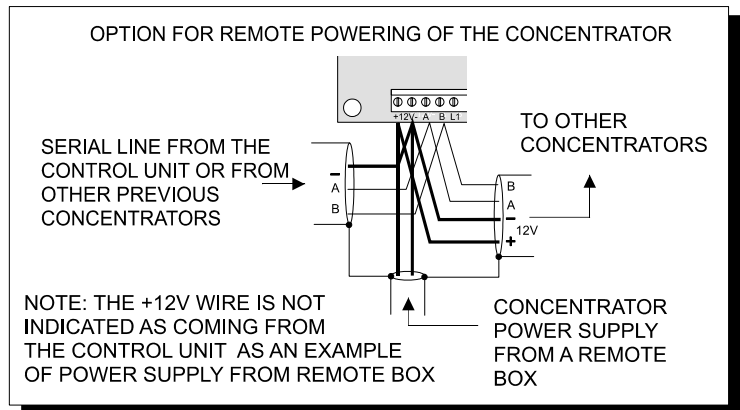
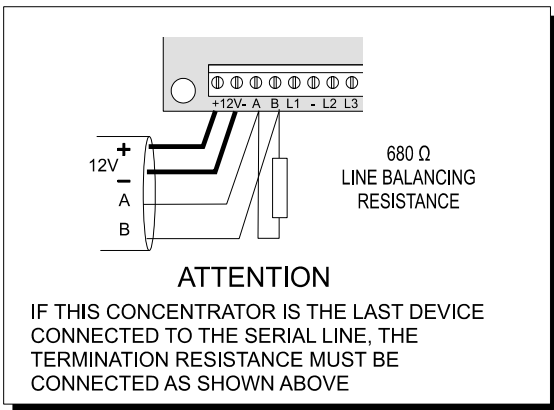
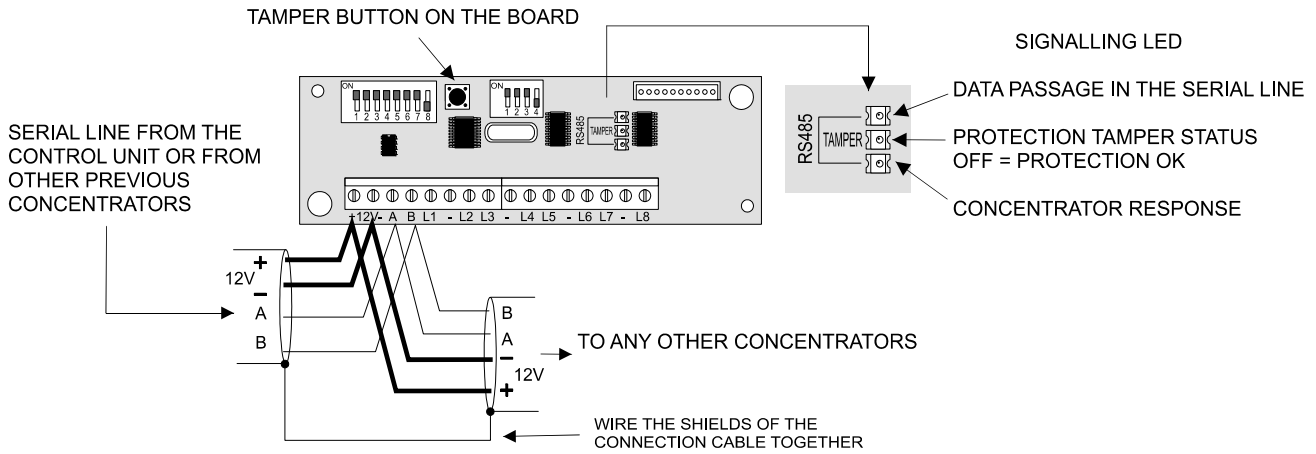
To detect spaced hits, halve the integration value bringing it to 5.

In case of false alarms set a sensitivity of less than 40, or in some cases increase the integration in steps of 5 (15, 20, ...) to reduce the detection time window.

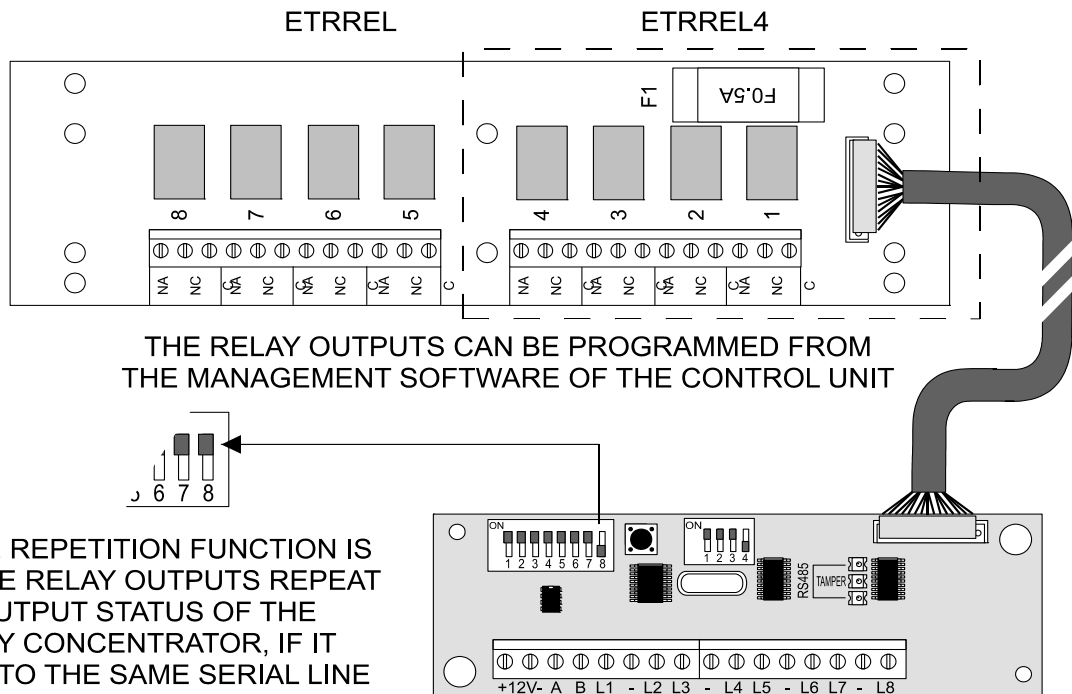




### Serial line connections.



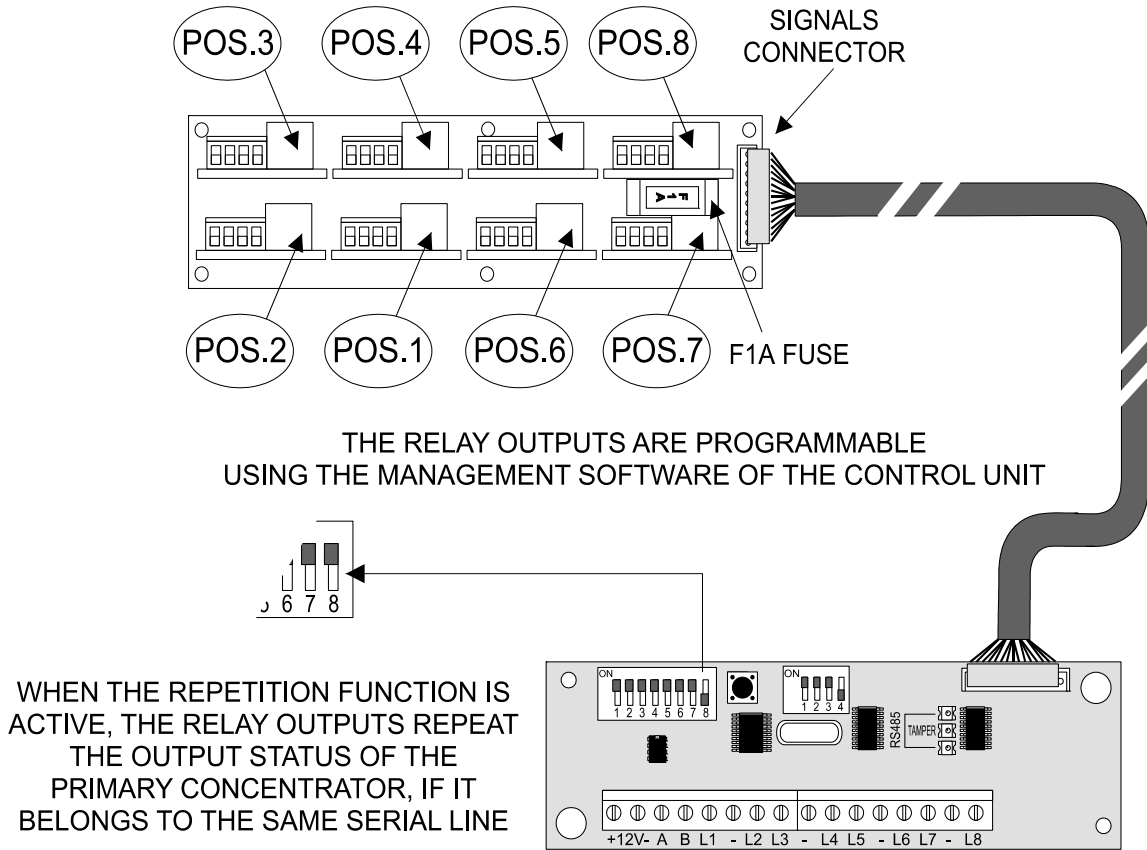
### Connection of the relay output board.



**Note:** the installation must take place in a suitable housing to ensure the required level of protection.

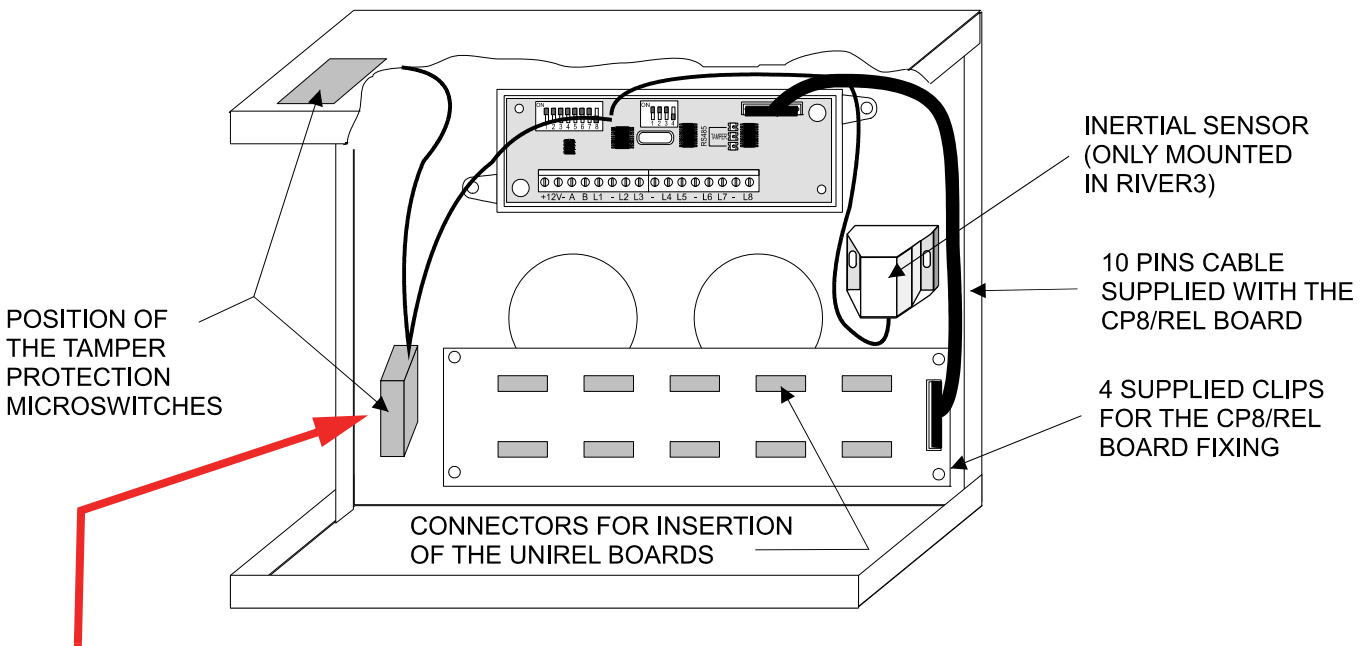


Connection of the CP8/REL board and UNIREL relay boards.



**Note:** the mod. CP8/REL board with UNIREL and the ETR/REL board can only be installed inside the metal housing of RIVER2. If they are connected to a mod. RIVER concentrator, it is necessary to install a proper housing in order to ensure the required level of protection.

Internal positioning of RIVER2 and RIVER3.

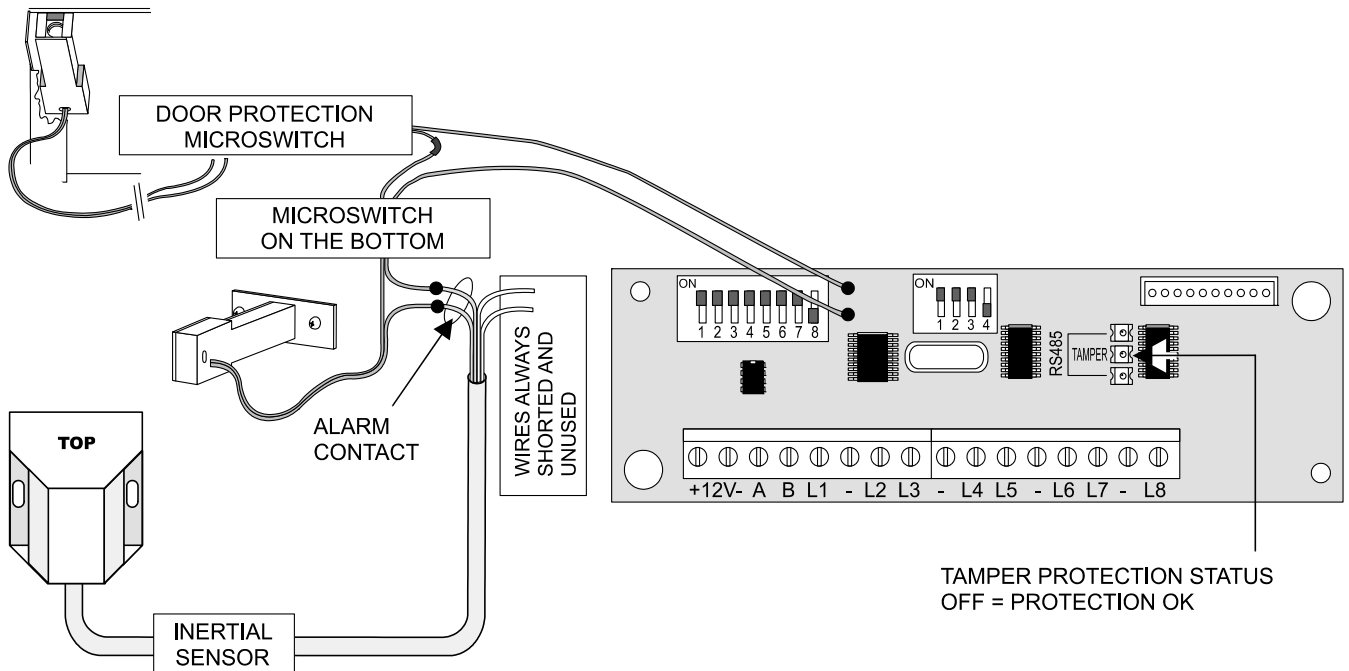


**IMPORTANT:** the Tamper pin needs to rest on a screw whose head is at least 2 mm inside the housing.



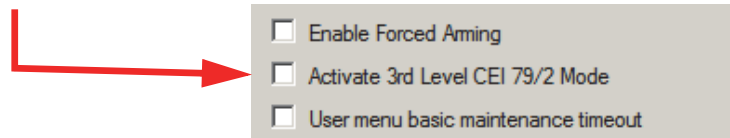
### 4. TAMPER PROTECTION OF RIVER3

The Tamper protection of RIVER3 includes an inertial sensor attached to the bottom of the housing. The electrical connections are shown in the following drawing.



**ATTENTION: This drawing does not allow nor authorize to transform a RIVER2 concentrator in a RIVER3.**

The operation at performance level III of RIVER3 must be enabled with the programming browser of the control unit (System Options) only if there is this item.





## 5. ADDRESS CONFIGURATION

Arrangement of the address selectors of the concentrator.

### Compatible control units: NET832 with firmware up to 2.x, ETR48, ETR128, ETR256, ETR512, TITANIA, TITANIAPLUS

Note: the position of the No. 8 selector is dedicated to the repetition function. Not being significant in this context, it is shown in its default position (OFF).

17	24	25	32	33	40	41	48	49	56	57	64
65	72	73	80	81	88	89	96	97	104	105	112
113	120	121	128	129	136	137	144	145	152	153	160
161	168	169	176	177	184	185	192	193	200	201	208
209	216	217	224	225	232	233	240	241	248	249	256
257	264	265	272	273	280	281	288	289	296	297	304
305	312	313	320	321	328	329	336	337	344	345	352
353	360	361	368	369	376	377	384	385	392	393	400
401	408	409	416	417	424	425	432	433	440	441	448
449	456	457	464	465	472	473	480	481	488	489	496
497	504	505	512	513	520	521	528	529	536	537	544
545	552	553	560	561	568	569	576	577	584	585	592



593 600	601 608	609 616	617 624	625 632	633 640	641 648	649 656	657 664	665 672	671 678	679 776	681 688	689 696	697 704	699 706	701 708	705 712	713 720	721 728	729 736	737 744	745 752	753 760	761 768	769 776	777 784	785 792	793 800	801 808	809 816	817 824	825 832	833 840	841 848	849 856	857 864	865 872	873 880	881 888	889 896	897 904	905 912	913 920	929 936	937 944	945 952	953 960	961 968	969 976	977 984	985 992	993 1000	1001 1008	1009 1016	1017 1024	1025 1032	1033 1040
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**DO NOT USE THESE ADDRESSES**

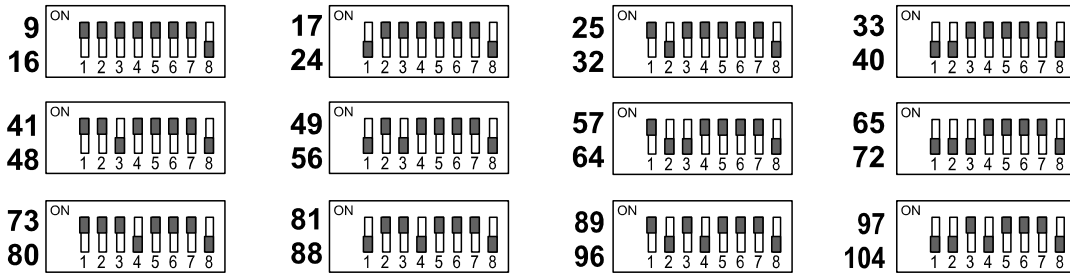
**Limitations for input programming:**  
 NET832 with firmware up to 2.x – from 17 up to 32.  
 ETR48 – from 17 up to 48, ETR128 – from 17 up to 128, ETR256 – from 17 up to 256, ETR512 – from 17 up to 512.  
 TITANIA – from 17 up to 512, TITANIAPLUS – from 17 up to 1024.

**Note:** the position of the No.8 selector is dedicated to the repetition function. Not being significant in this context, it is shown in its default position (OFF).



Compatible control units: **ET4PLUS, NET4, NET832, ETR100, ETR100M, NET5, NET9, ET8/48SE.**

**Note:** the position of the No.8 selector is dedicated to the repetition function. Not being significant in this context, it is shown in its default position (OFF).

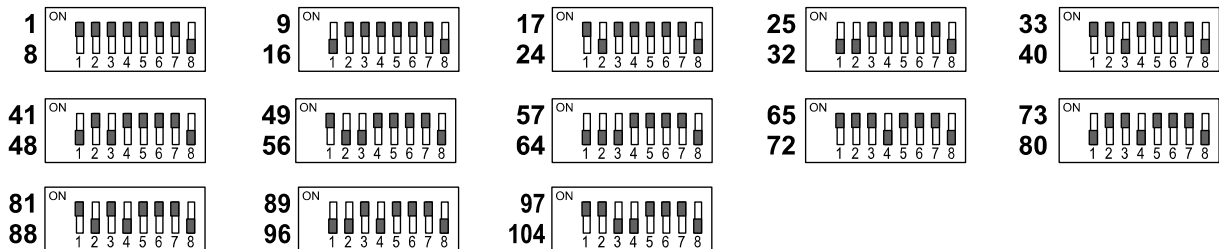


Limitations in the inputs programming:

- ET4PLUS, NET4** from 9 up to 16.
- NET832 with version 3 or higher firmware** from 9 up to 32.
- ETR100, ETR100M, NET5, NET9** from 9 up to 104.
- ET8/48SE** from 9 up to 48.

Compatible control units: **VIDOMO, CP80, CP90, CP100, PREGIO.**

**Note:** the position of the No.8 selector is dedicated to the repetition function. Not being significant in this context, it is shown in its default position (OFF).



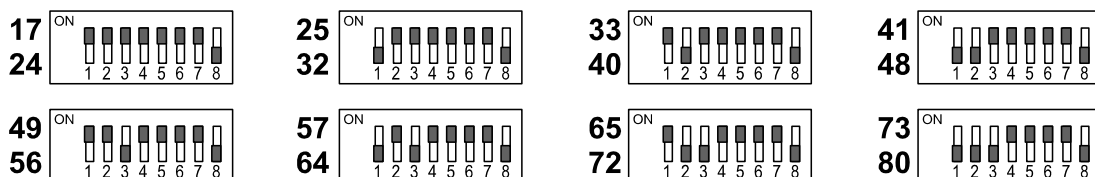
Limitations in the inputs programming:

- VIDOMO, CP80, CP90, CP100** up to 64 inputs.
- PREGIO500** up to 24 inputs. **PREGIO1000** up to 48 inputs. **PREGIO2000** up to 104 inputs.

It is recommended to use addresses from 17 to 64 for PREGIO1000 and from 17 to 104 for PREGIO2000, to leave the lower ones open for board zones.

Compatible control units: **ET8/48** series, **ET8/480** series.

**Note:** the position of the No.8 selector is dedicated to the repetition function. Not being significant in this context, it is shown in its default position (OFF).



Limitations in the inputs programming:

- ET8/48** from 17 up to 48.

Compatible control units: **PROXIMA**.

**Note:** the position of the No.8 selector is dedicated to the repetition function. Not being significant in this context, it is shown in its default position (OFF).

Address range	ON dips	Address range	ON dips	Address range	ON dips	Address range	ON dips
1 - 8	1 2 3 4 5 6 7 -	265 - 272	- 2 3 4 5 - 7 -	513 - 520	1 2 3 4 5 6 - -	777 - 784	- 2 3 4 5 - - -
9 - 16	- 2 3 4 5 6 7 -	273 - 280	1 - 3 4 5 - 7 -	521 - 528	- 2 3 4 5 6 - -	785 - 792	1 - 3 4 5 - - -
17 - 24	1 - 3 4 5 6 7 -	281 - 288	- - 3 4 5 - 7 -	529 - 536	1 - 3 4 5 6 - -	793 - 800	- - 3 4 5 - - -
25 - 32	- - 3 4 5 6 7 -	289 - 296	1 2 - 4 5 - 7 -	537 - 544	- - 3 4 5 6 - -	801 - 808	1 2 - 4 5 - - -
33 - 40	1 2 - 4 5 6 7 -	297 - 304	- 2 - 4 5 - 7 -	545 - 552	1 2 - 4 5 6 - -	809 - 816	- 2 - 4 5 - - -
41 - 48	- 2 - 4 5 6 7 -	305 - 312	1 - - 4 5 - 7 -	553 - 560	- 2 - 4 5 6 - -	817 - 824	1 - - 4 5 - - -
49 - 56	1 - - 4 5 6 7 -	313 - 320	- - - 4 5 - 7 -	561 - 568	1 - - 4 5 6 - -	825 - 832	- - - 4 5 - - -
57 - 64	- - - 4 5 6 7 -	321 - 328	1 2 3 - 5 - 7 -	569 - 576	- - - 4 5 6 - -	833 - 840	1 2 3 - 5 - - -
65 - 72	1 2 3 - 5 6 7 -	329 - 336	- 2 3 - 5 - 7 -	577 - 584	1 2 3 - 5 6 - -	841 - 848	- 2 3 - 5 - - -
73 - 80	- 2 3 - 5 6 7 -	337 - 344	1 - 3 - 5 - 7 -	585 - 592	- 2 3 - 5 6 - -	849 - 856	1 - 3 - 5 - - -
81 - 88	1 - 3 - 5 6 7 -	345 - 352	- - 3 - 5 - 7 -	593 - 600	1 - 3 - 5 6 - -	857 - 864	- - 3 - 5 - - -
89 - 96	- - 3 - 5 6 7 -	353 - 360	1 2 - - 5 - 7 -	601 - 608	- - 3 - 5 6 - -	865 - 872	1 2 - - 5 - - -
97 - 104	1 2 - - 5 6 7 -	361 - 368	- 2 - - 5 - 7 -	609 - 616	1 2 - - 5 6 - -	873 - 880	- 2 - - 5 - - -
105 - 112	- 2 - - 5 6 7 -	369 - 376	1 - - - 5 - 7 -	617 - 624	- 2 - - 5 6 - -	881 - 888	1 - - - 5 - - -
113 - 120	1 - - - 5 6 7 -	377 - 384	- - - - 5 - 7 -	625 - 632	1 - - - 5 6 - -	889 - 896	- - - - 5 - - -
121 - 128	- - - - 5 6 7 -	385 - 392	1 2 3 4 - - 7 -	633 - 640	- - - - 5 6 - -	897 - 904	1 2 3 4 - - - -
129 - 136	1 2 3 4 - 6 7 -	393 - 400	- 2 3 4 - - 7 -	641 - 648	1 2 3 4 - 6 - -	905 - 912	- 2 3 4 - - - -
137 - 144	- 2 3 4 - 6 7 -	401 - 408	1 - 3 4 - - 7 -	649 - 656	- 2 3 4 - 6 - -	913 - 920	1 - 3 4 - - - -
145 - 152	1 - 3 4 - 6 7 -	409 - 416	- - 3 4 - - 7 -	657 - 664	1 - 3 4 - 6 - -	921 - 928	- - 3 4 - - - -
153 - 160	- - 3 4 - 6 7 -	417 - 424	1 2 - 4 - - 7 -	665 - 672	- - 3 4 - 6 - -	929 - 936	1 2 - 4 - - - -
161 - 168	1 2 - 4 - 6 7 -	425 - 432	- 2 - 4 - - 7 -	673 - 680	1 2 - 4 - 6 - -	937 - 944	- 2 - 4 - - - -
169 - 176	- 2 - 4 - 6 7 -	433 - 440	1 - - 4 - - 7 -	681 - 688	- 2 - 4 - 6 - -	945 - 952	1 - - 4 - - - -
177 - 184	1 - - 4 - 6 7 -	441 - 448	- - - 4 - - 7 -	689 - 696	1 - - 4 - 6 - -	953 - 960	- - - 4 - - - -
185 - 192	- - - 4 - 6 7 -	449 - 456	1 2 3 - - - 7 -	697 - 704	- - - 4 - 6 - -	961 - 968	1 2 3 - - - - -
193 - 200	1 2 3 - - 6 7 -	457 - 464	- 2 3 - - - 7 -	705 - 712	1 2 3 - - 6 - -	969 - 976	- 2 3 - - - - -
201 - 208	- 2 3 - - 6 7 -	465 - 472	1 - 3 - - - 7 -	713 - 720	- 2 3 - - 6 - -	977 - 984	1 - 3 - - - - -
209 - 216	1 - 3 - - 6 7 -	473 - 480	- - 3 - - - 7 -	721 - 728	1 - 3 - - 6 - -	985 - 992	- - 3 - - - - -
217 - 224	- - 3 - - 6 7 -	481 - 488	1 2 - - - - 7 -	729 - 736	- - 3 - - 6 - -	993 - 1000	1 2 - - - - - -
225 - 232	1 2 - - - 6 7 -	489 - 496	- 2 - - - - 7 -	737 - 744	1 2 - - - 6 - -	1001 - 1008	- 2 - - - - - -
233 - 240	- 2 - - - 6 7 -	497 - 504	1 - - - - - 7 -	745 - 752	- 2 - - - 6 - -	1009 - 1016	1 - - - - - - -
241 - 248	1 - - - - 6 7 -	505 - 512	- - - - - 7 -	753 - 760	1 - - - - 6 - -	1017 - 1024	- - - - - - - -
249 - 256	- - - - - 6 7 -			761 - 768	- - - - - 6 - -		
257 - 264	1 2 3 4 5 - 7 -			769 - 776	1 2 3 4 5 - - -		

Limitations in the inputs programming:

**PRX128 up to 128 inputs.**

**PRX256 up to 256 inputs.**

**PRX1024 up to 1024 inputs.**

It is recommended to use addresses from 17 to leave the lower ones open for board zones.

Serial line concentrators for ETR series, TITANIA series and other compatible control units modd. RIVER, RIVER2, RIVER3  
 TECHNICAL MANUAL - February 2021 edition

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The information and product features herein are not binding and may be changed without prior notice.

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