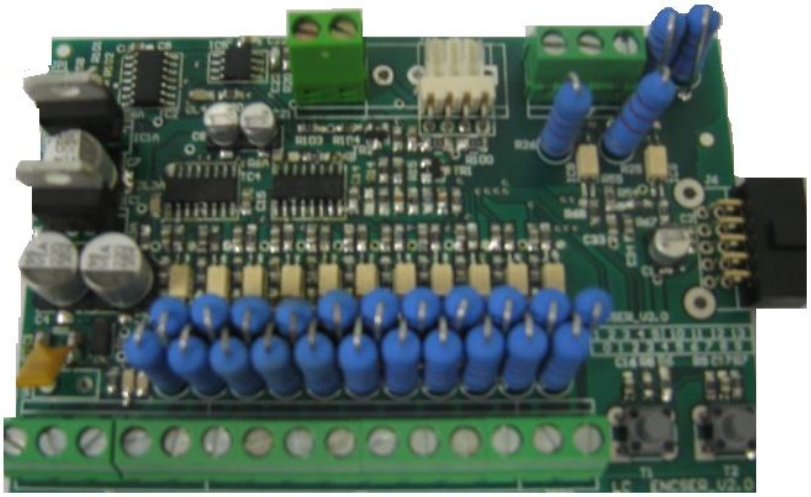
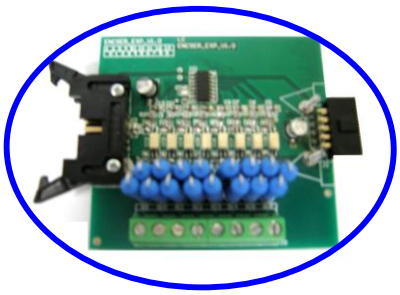
Electronic systems for lifts.

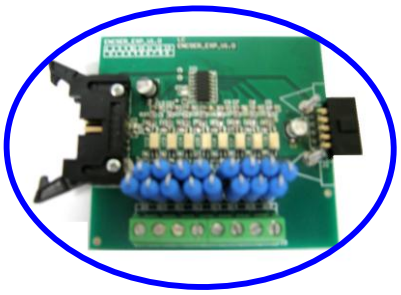
Rev. n. 01 Date: 20/04/10 hardware 2.0 frw 0.1

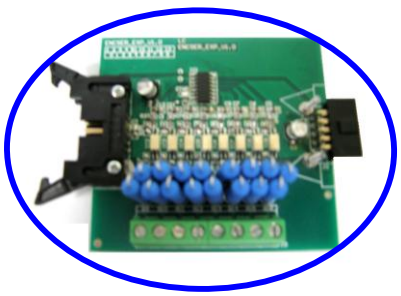
MANUAL USER

ENCSER



\+  ENCSER_EXP

\+  ENCSER_EXP

\+  ENCSER_EXP

CONTENTS:

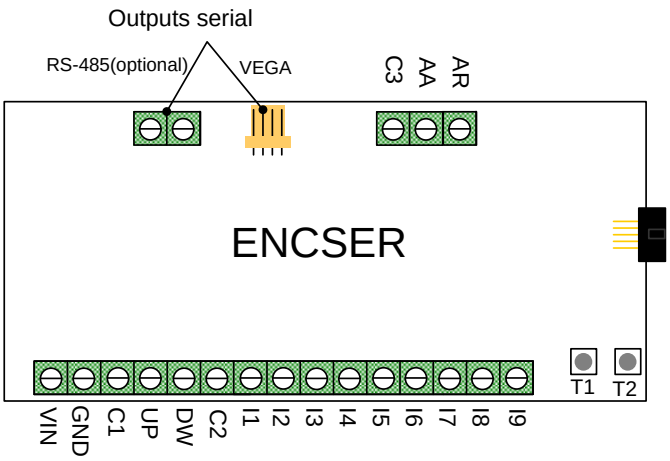
TECHNICAL DATA:

POWER SUPPLY	12/24 Vdc
DIMENSIONS	67x100x22 mm
WEIGHT	77g
CODING	1 wire per floor, binary code or inverted binary code and gray code.
PROGRAMMING	Act the T1 and T2 push buttons on the board
ACTIVATION OF THE ARROWS	Common anode (positive common) or Common cathode (negative common)
ACTIVATION OF THE ALARM	Common anode (positive common) or Common cathode (negative common)
ACTIVATION OF THE INPUTS	Common anode (positive common) or Common cathode (negative common)
RANGE OF INPUTS	12 a 120 Vac/dc ± 10%
SERIAL OUTPUTS	VEGA serial(ENCSER_VEG) or RS485 (optional) ENCSER_485)
MOUNTING	By DIN
TEMPERATURE WORKING RANGE	from -20 to 50 °C
AVAILABLE INPUTS	9 (until 33 with ENCSER_EXP expansions)

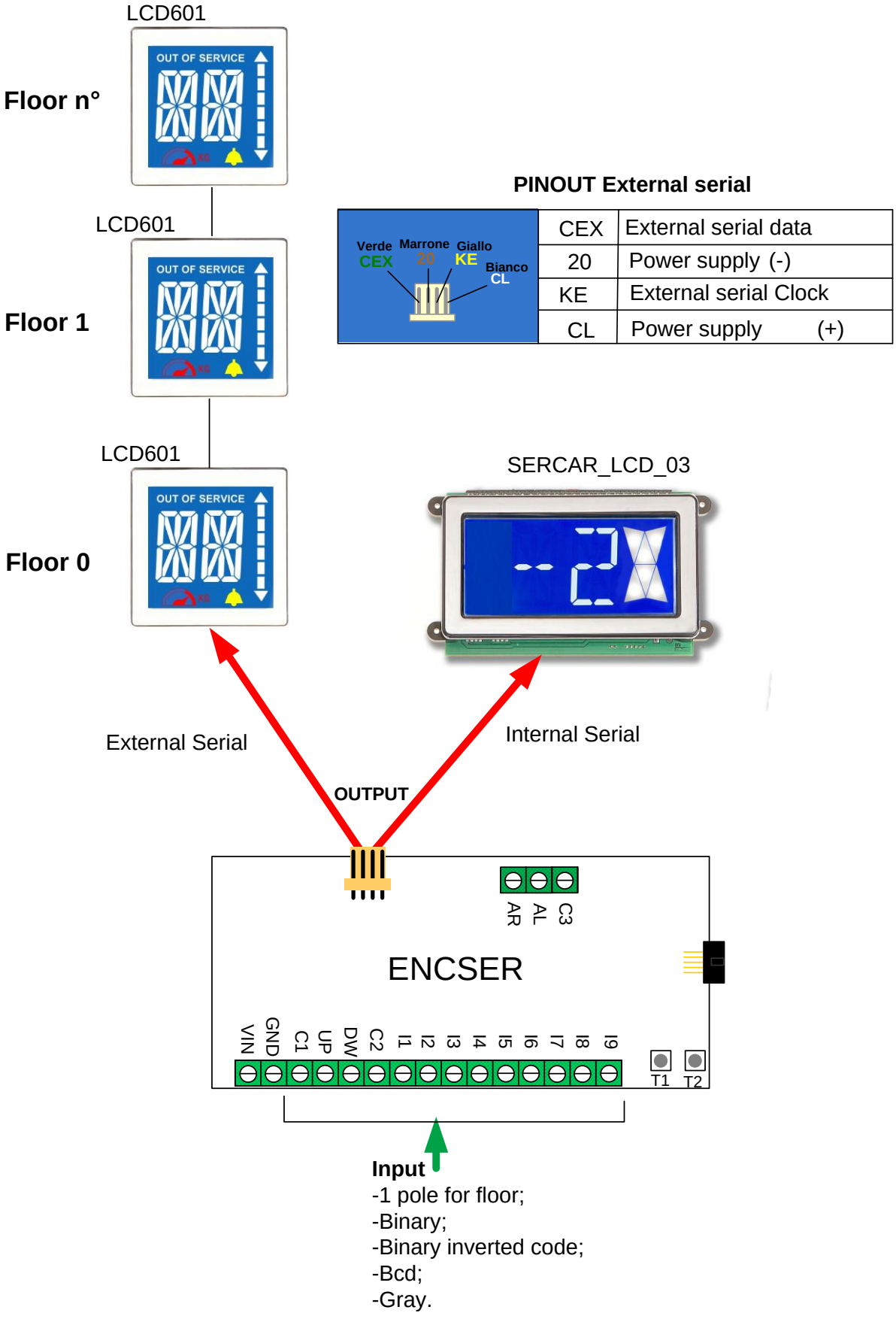
ENCSER programmation made through T1 and T2 push-buttons using a VEGA serial display.
Allow to:
- select the code to use (1 wire per floor, binary code or inverted binary code);
-the first floor;
- number of expansion (ENCSER_EXP) connect (up to 3).

PINOUT

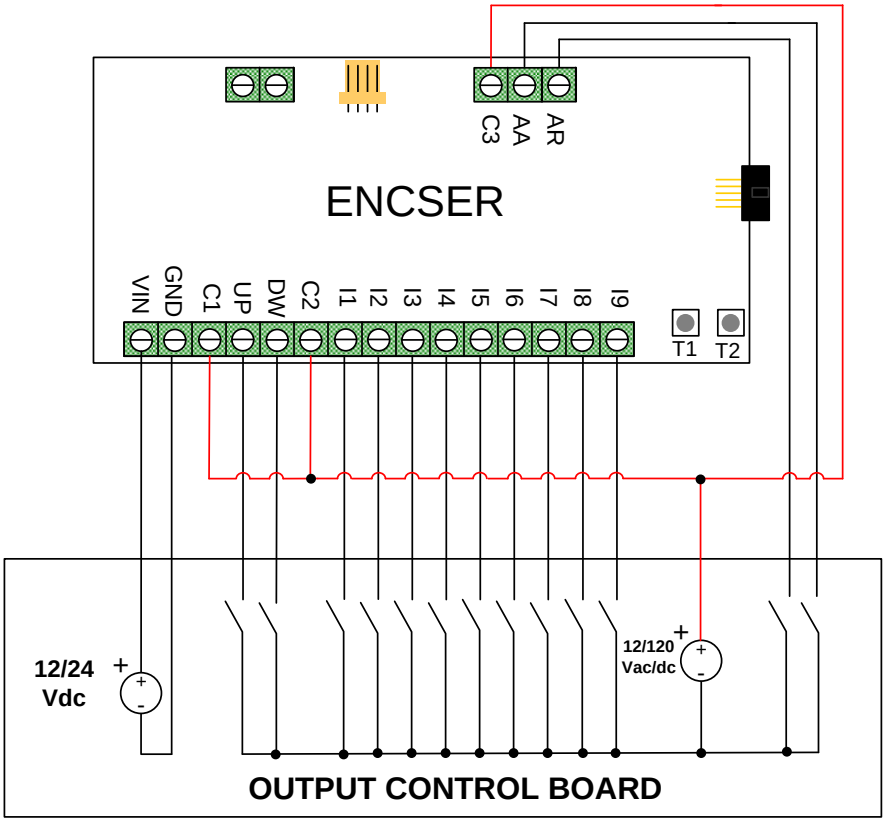
PIN	DESCRIPTION
VIN	Power supply (+)
GND	Power supply (-)
C1	Arrows common
UP	Up arrow
DW	Down arrow
C2	Inputs common (I1-I9)
I1	INPUT 1
I2	INPUT 2
I3	INPUT 3
I4	INPUT 4
I5	INPUT 5
I6	INPUT 6
I7	INPUT 7 /Overload
I8	INPUT 8/Gong/Trigger for synthetize voice
I9	INPUT 9/Out of service
C3	Alarm common
AA	Sent alarm
AR	Acknowledged alarm



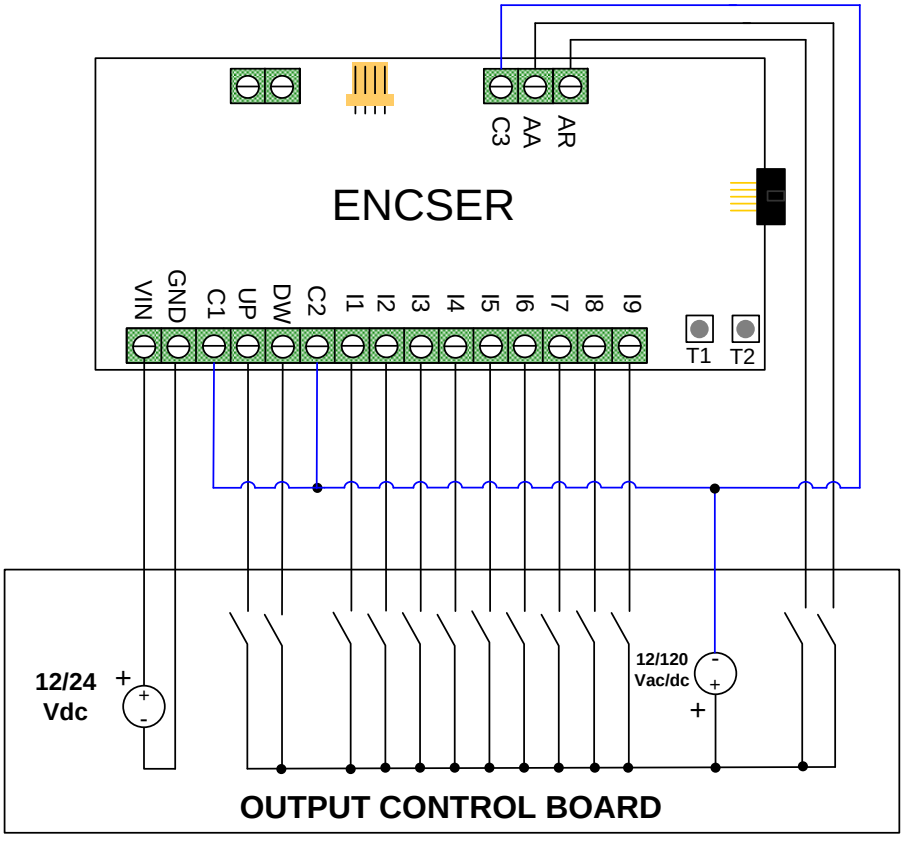
Application drawings:



Activation of inputs **common anode**



Activation of inputs **common cathode**



PROGRAMMING

You must connect a serial display (VEGA) for programming Encser.
2 programming buttons denominated SELECT (T1) and ENTER (T2), are available.
T1 button allow to choose a menu or change a parameter, while **T2** button allow to confirm the choice.
Press T1 button to enter into programmino mode, while wait for 30 seconds to exit programming mode without modifying any parameter.

Menu 1: It allows to choose the floors coding mode (look at the table below).

- Press one time the **T1** (SELECT) button. Display will visualize the string "M1";
- Press the **T2** (ENTER) button to access the programming menu.
  With the **T1** (SELECT) button is possible to select the desired coding mode.
- Press the **T2** (ENTER) button to confirm the mode.
  The programming procedure is completed and the data are stored.

CODING	Display	Description
1 wire per floor	**1P**	Each input matches a floor.(Range from -1 to 7)
Binary	**b**	Use only the first 5 inputs to calculate the floor number in binary code.
Inverted binary	**bn**	Use only the first 5 inputs to calculate the floor number in binary code.
Gray	**Gr**	Use only the first 5 inputs to calculate the floor number in Gray code.

VISUALIZED NUMBERS	I1 =LSB	I2	I3	I4	I5 = MSB
0	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF
5	ON	OFF	ON	OFF	OFF
6	OFF	ON	ON	OFF	OFF
7	ON	ON	ON	OFF	OFF
8	OFF	OFF	OFF	ON	OFF
9	ON	OFF	OFF	ON	OFF
10	OFF	ON	OFF	ON	OFF
11	ON	ON	OFF	ON	OFF
12	OFF	OFF	ON	ON	OFF
13	ON	OFF	ON	ON	OFF
14	OFF	ON	ON	ON	OFF
15	ON	ON	ON	ON	OFF
16	OFF	OFF	OFF	OFF	ON
17	ON	OFF	OFF	OFF	ON
18	OFF	ON	OFF	OFF	ON
19	ON	ON	OFF	OFF	ON
20	OFF	OFF	ON	OFF	ON
21	ON	OFF	ON	OFF	ON
22	OFF	ON	ON	OFF	ON
23	ON	ON	ON	OFF	ON
24	OFF	OFF	OFF	ON	ON
25	ON	OFF	OFF	ON	ON
26	OFF	ON	OFF	ON	ON
27	ON	ON	OFF	ON	ON
28	OFF	OFF	ON	ON	ON
29	ON	OFF	ON	ON	ON
30	OFF	ON	ON	ON	ON
31	ON	ON	ON	ON	ON

VISUALIZED NUMBERS	I1 =LSB	I2	I3	I4	I5 = MSB
0	ON	ON	ON	ON	ON
1	OFF	ON	ON	ON	ON
2	ON	OFF	ON	ON	ON
3	OFF	OFF	ON	ON	ON
4	ON	ON	OFF	ON	ON
5	OFF	ON	OFF	ON	ON
6	ON	OFF	OFF	ON	ON
7	OFF	OFF	OFF	ON	ON
8	ON	ON	ON	OFF	ON
9	OFF	ON	ON	OFF	ON
10	ON	OFF	ON	OFF	ON
11	OFF	OFF	ON	OFF	ON
12	ON	ON	OFF	OFF	ON
13	OFF	ON	OFF	OFF	ON
14	ON	OFF	OFF	OFF	ON
15	OFF	OFF	OFF	OFF	ON
16	ON	ON	ON	ON	OFF
17	OFF	ON	ON	ON	OFF
18	ON	OFF	ON	ON	OFF
19	OFF	OFF	ON	ON	OFF
20	ON	ON	OFF	ON	OFF
21	OFF	ON	OFF	ON	OFF
22	ON	OFF	OFF	ON	OFF
23	OFF	OFF	OFF	ON	OFF
24	ON	ON	ON	OFF	OFF
25	OFF	ON	ON	OFF	OFF
26	ON	OFF	ON	OFF	OFF
27	OFF	OFF	ON	OFF	OFF
28	ON	ON	OFF	OFF	OFF
29	OFF	ON	OFF	OFF	OFF
30	ON	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF	OFF

OFF: input disabled (switch open)
ON: input enabled (switch close)

***NOTE**: The tables are compiled with zero offset setted in the MENU 2.*

It's possible set the offset at menù 2

PIANI VISUALIZZATI	I1 (A)	I2 (B)	I3 (C)	I4 (D)	I5 (E)
-3	OFF	OFF	OFF	OFF	OFF
-2	ON	OFF	OFF	OFF	OFF
-1	ON	ON	OFF	OFF	OFF
0	OFF	ON	OFF	OFF	OFF
1	OFF	ON	ON	OFF	OFF
2	ON	ON	ON	OFF	OFF
3	ON	OFF	ON	OFF	OFF
4	OFF	OFF	ON	OFF	OFF
5	OFF	OFF	ON	ON	OFF
6	ON	OFF	ON	ON	OFF
7	ON	ON	ON	ON	OFF
8	OFF	ON	ON	ON	OFF
9	OFF	ON	OFF	ON	OFF
10	ON	ON	OFF	ON	OFF
11	ON	OFF	OFF	ON	OFF
12	OFF	OFF	OFF	ON	OFF
13	OFF	OFF	OFF	ON	ON
14	ON	OFF	OFF	ON	ON
15	ON	ON	OFF	ON	ON
16	OFF	ON	OFF	ON	ON
17	OFF	ON	ON	ON	ON
18	ON	ON	ON	ON	ON
19	ON	OFF	ON	ON	ON
20	OFF	OFF	ON	ON	ON
21	OFF	OFF	ON	OFF	ON
22	ON	OFF	ON	OFF	ON
23	ON	ON	ON	OFF	ON
24	OFF	ON	ON	OFF	ON
25	OFF	ON	OFF	OFF	ON
26	ON	ON	OFF	OFF	ON
27	ON	OFF	OFF	OFF	ON
28	OFF	OFF	OFF	OFF	ON

The configuration of DIP-Switch on LCD4002 display for gong LCD4002, it's standard

Configurazione dip-switch **Display LCD4002**						
PIANI	1	2	3	4	5	6
-3	OFF	OFF	OFF	OFF	OFF	ON
-2	ON	OFF	OFF	OFF	OFF	ON
-1	OFF	ON	OFF	OFF	OFF	ON
0	ON	ON	OFF	OFF	OFF	ON
1	OFF	OFF	ON	OFF	OFF	ON
2	ON	OFF	ON	OFF	OFF	ON
3	OFF	ON	ON	OFF	OFF	ON
4	ON	ON	ON	OFF	OFF	ON
5	OFF	OFF	OFF	ON	OFF	ON
6	ON	OFF	OFF	ON	OFF	ON
7	OFF	ON	OFF	ON	OFF	ON
8	ON	ON	OFF	ON	OFF	ON
9	OFF	OFF	ON	ON	OFF	ON
10	ON	OFF	ON	ON	OFF	ON
11	OFF	ON	ON	ON	OFF	ON
12	ON	ON	ON	ON	OFF	ON
13	OFF	OFF	OFF	OFF	ON	ON
14	ON	OFF	OFF	OFF	ON	ON
15	OFF	ON	OFF	OFF	ON	ON
16	ON	ON	OFF	OFF	ON	ON
17	OFF	OFF	ON	OFF	ON	ON
18	ON	OFF	ON	OFF	ON	ON
19	OFF	ON	ON	OFF	ON	ON
20	ON	ON	ON	OFF	ON	ON
21	OFF	OFF	OFF	ON	ON	ON
22	ON	OFF	OFF	ON	ON	ON
23	OFF	ON	OFF	ON	ON	ON
24	ON	ON	OFF	ON	ON	ON
25	OFF	OFF	ON	ON	ON	ON
26	ON	OFF	ON	ON	ON	ON
27	OFF	ON	ON	ON	ON	ON
28	ON	ON	ON	ON	ON	ON

OFF: input disabled (switch open)
ON: input enabled (switch close)

***NOTE**: The tables are compiled with "-3" offset setted in the MENU 2.*

Menu 2: It allows to choose the value that must be visualized at the first floor, the value for the other floors will be automatically shifted.

- Press two times the **T1** (SELECT) button. Display will visualize the string "**M2**";
- Press the **T2** (ENTER) button to have the access to the programming menu.
  selected value for the first floor.
  With the **T1** (SELECT). button is possible to choose the value for the first floor in a range from -9 to +9.

- Press the **T2** (ENTER) button to confirm the desired value.
  The programming procedure is completed and the data are stored.

Menu 3: : It allows to choose the number of expansion (ENCSER_EXP) connect.

- Press Three times the **T1** (SELECT) button 3 times. Display will visualize the string "**M3**";
- Press the **T2** (ENTER) button to have the access to the programming menu.The digits blink and visualize the current value.
- With the **T1** (SELECT). button it is possible to choose the number of expansion connected (until 3)
- Press the **T2** (ENTER) button to confirm the desired value.
  The programming procedure is completed and the data are stored.

Menu 4: It allows enable the signalling of out of service, gong and overload.

- Press four time the **T1** (SELECT) button. Display will visualize the string "**M4**";
- Press the **T2** (ENTER) button to have the access to the programming menu. The digits visualize the current value.
- With the **T1** (SELECT). button it is possible to choose the number of value;

	Menu 4=0	Menu 4=1
I7	Input of floor 7	Overload
I8	Input of floor 8	Gong/Trigger
I9	Input of floor 9	Out of service

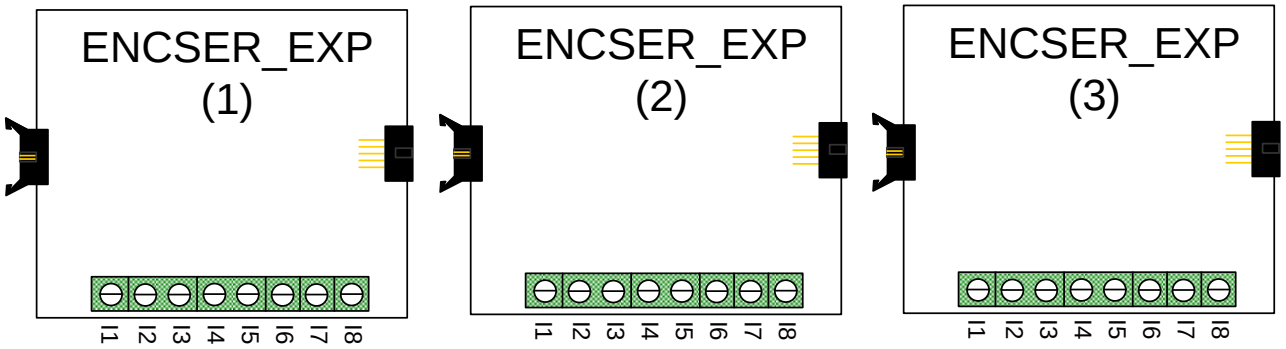
- Press the **T2** (ENTER) button to confirm the desired value.
  The programming procedure is completed and the data are stored.

MENU SUMMARY

Menù	Range	Default	Description
1	1P-b-bn-Gr	Gr	Modify the coding mode used by the board.
2	-9…+9	-3	Assign the value visualized at the first floor. The values visualized at the other floors will be automatically worked out by the board
3	0-3	0	The number of expansion (ENCSER_EXP) connected. (max 3)
4	0-1	1	Enable the input for overload, gong and out of service.

ENCSER_EXP

You can connect the expansion (ENCSER_EXP) to ENCSER up to a maximum of 3. (view menu3)



PIN	ENCSER_EXP (1)	(*)
I1	INPUT 10	8
I2	INPUT 11	9
I3	INPUT 12	10
I4	INPUT 13	11
I5	INPUT 14	12
I6	INPUT 15	13
I7	INPUT 16	14
I8	INPUT 17	15

PIN	ENCSER_EXP (2)	(*)
I1	I INPUT 18	16
I2	INPUT 19	17
I3	INPUT 20	18
I4	INPUT 21	19
I5	INPUT 22	20
I6	INPUT 23	21
I7	INPUT 24	22
I8	INPUT 25	23

PIN	ENCSER_EXP (3)	(*)
I1	INPUT 26	24
I2	INPUT 27	25
I3	INPUT 28	26
I4	INPUT 29	27
I5	INPUT 30	28
I6	INPUT 31	29
I7	INPUT 32	30
I8	INPUT 33	31

NOTE (*):Number visualized with defaults.

PIN C2 is the common of the inputs ENCSER_EXP.

Segnalling in the serial display:

Model	**Out of service**	**Gong**	**Overload**	**Alarm active**	**Alarm receive**
Icaro DSR_00	F	…	C	A	Ar
Sercar_lcd_screen	F	…	C	A	Ar
Sercar_lcd_2.4_03	F	…	C	A	Ar
Lcd 4001	F	…	C	A	Ar
Lcd 600-601	Icon “out of service”	…	Icon	Icon alarm (bell)	…
Tft 5.7” (v0.3)	Icon “Out of service servis”	Gong	Icon	Icon alarm (bell)	Icon alarm receive

NOTE:

EC Declaration of Conformity

Electronic systems for lifts.

The undersigned

Engeineer Paolo Vitturini as legal rappresentative of the VEGA Srl company,
5A, via M. Marcatili Ammiraglio – 63020 Ponzano di Fermo (AP) Italy
Tel. +39.0734.631941 Fax +39. 0734.636098

AS BUILDER I DECLARE UNDER MY SOLE RESPONSIBILITY THAT

ENCSER

Comply with the following Directives of the council of the European Community:

Council Directive 89/336/EEC and its amendments 92/31/EEC and 93/68/EEC, relating to electromagnetic compatibility.

Ponzano di Fermo
21/04/2010

VEGA Srl
Eng. PAOLO VITTURINI