ITALIAN STYLE FOR LIFTS

TRANSPONDER
and
TRANSPONDER LS

Rev. n. 8
Fw. 19

1 DESCRIPTION

The transponder is used to connect the VEGA touch screen displays with a discrete wired elevator controller.
The transponder takes as input different signals from the controller (position bit, alarms, arrows, button light) and transforms them into something displayed on the touchscreen or announced (position indication, alarm icons, on or off buttons).
IMPORTANT If you have a positive signal you need to connect a GND on the corresponding COM, if you have a GND signal the COM must be positive.

The transponder transforms the button pressure on the touch screen in a signal to the controller (OUTPUT PINS), in this case, the signal polarity cannot be chosen but it depends on the model you have:

- TRANSPONDER LS->Output voltage GND
- TRANSPONDER ->Output voltage +Vin

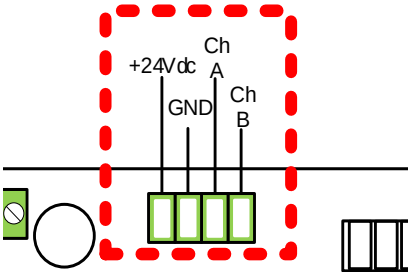
2 TECHNICAL DATA

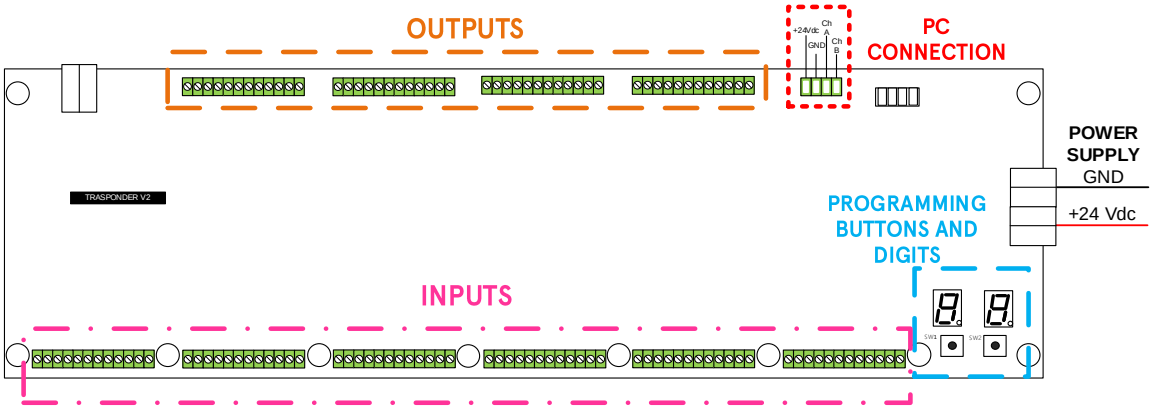
	TRANSPONDER LS	TRANSPONDER
Output voltage	GND	+VIN
Dimensions	358 mm x 108 mm (14.1 inch x 4.2 inch)	
Weight	500 g (17.6 oz)	
Power supply voltage VIN	12-24 Vdc	
Inputs voltage	12-24 Vdc	
Input activation	High or low	
Maximum single output current	100 mA	

3 PINOUT

3.1 Connection to the PC

Use the cable CB.USB-TRSPD.1000 to connect the USB port of the PC with the connector in picture

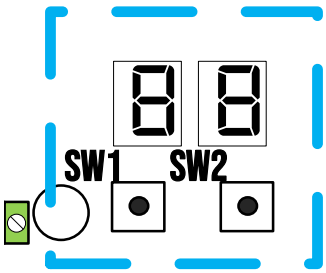


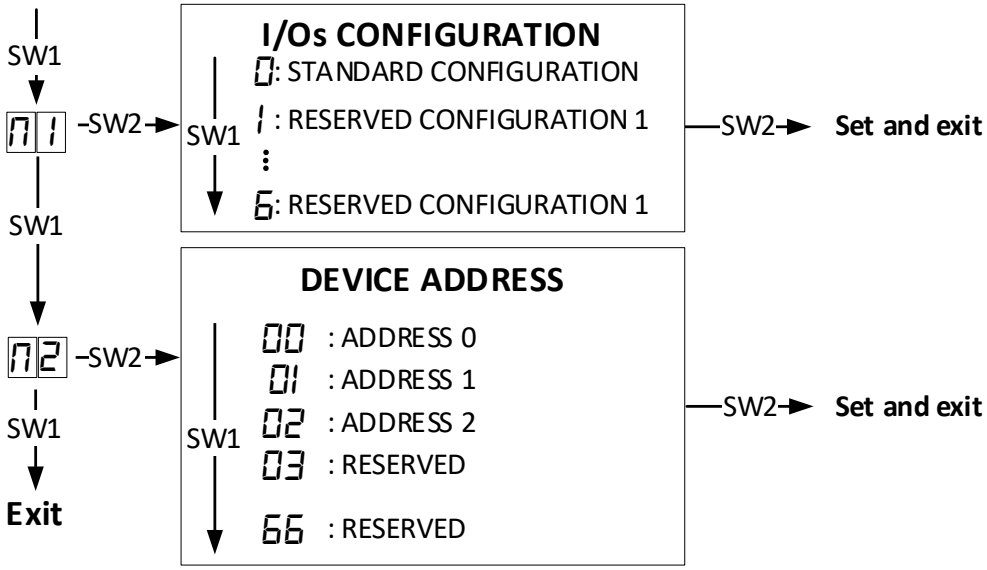


3.2 I/Os programming

Use the buttons SW1 and SW2 to program the I/Os function, the two digits will show the setting you are modifying.

The I/O functions for each configuration are in the following paragraphs.





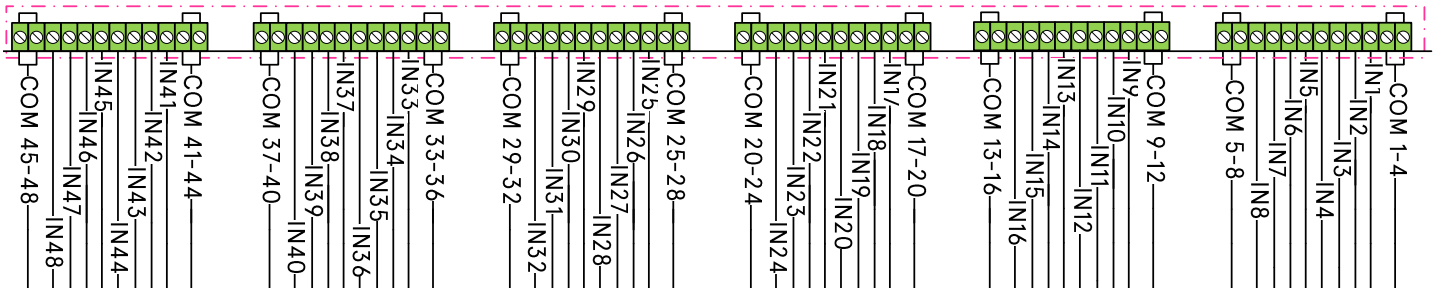
3.3 Standard configuration

Using the standard configuration (M 1=0) the I/Os work as programmed in the I/O SETTINGS of the touchscreen theme (see the GENIUS EDITOR manual for more information).
Specifically, by programming ADDRESS 0 in the transponder (M2=0) the I/Os work according to what is programmed in the I/O SETTING:ADDRESS 0.
If you need more than 48 I/Os a second transponder is needed, by programming ADDRESS 1 in the second transponder (M2= 1) the I/Os work according to what is programmed in the I/O SETTING:ADDRESS 1.
If a third transponder is necessary, by programming ADDRESS 2 in this last transponder (M2=2) the I/Os work according to what is programmed in the I/O SETTING:ADDRESS 2.
Do not use M2=3 and M2=66.

3.3.1 Inputs in standard configuration

Using the standard configuration (M 1=0) the inputs work as programmed in the I/O SETTINGS of the touchscreen theme.
Each input can be used as:

- SERVICE LAMP service button light, activating the input, the corresponding service button (Open doors, close doors, Alarm, ..., etc) changes on the display passing from the image chosen as the OFF state to the one chosen for the ON state;
- FLOOR LAMPS call button light, activating the input, the corresponding call button changes on the display passing from the image chosen as the OFF state to the one chosen for the ON state;
- CAR POSITION the input can be used as one of the bits in BINARY, INV. BINARY, GRAY. If the position is coded as ONE WIRE PER FLOOR the input activates the indication of a floor;
- ARROWS activating the input, the corresponding arrow goes ON;
- MESSAGES activating the input, the device shows the icon and announce the message corresponding;
- AUDIO the input can be used as a trigger for floor announcement (Voice announcement) or to activate some gong sounds.



Connect COM1-4 to a positive voltage +V to activate the inputs from IN1 to IN4 with a GND;
Connect COM1-4 to a GND to activate the inputs from IN1 to IN4 with a positive voltage +V;
ATTENTION: if you do not connect the COM1-4 the inputs from IN1 to IN4 do not work;

Connect COM5-8 to a positive voltage +V to activate the inputs from IN5 to IN8 with a GND;
Connect COM5-8 to a GND to activate the inputs from IN5 to IN8 with a positive voltage +V;
ATTENTION: if you do not connect the COM5-8 the inputs from IN5 to IN8 do not work;

Connect COM9-12 to a positive voltage +V to activate the inputs from IN9 to IN12 with a GND;
Connect COM9-12 to a GND to activate the inputs from IN9 to IN12 with a positive voltage +V;
ATTENTION: if you do not connect the COM9-12 the inputs from IN9 to IN12 do not work;

Connect COM13-16 to a positive voltage +V to activate the inputs from IN13 to IN16 with a GND;
Connect COM13-16 to a GND to activate the inputs from IN13 to IN16 with a positive voltage +V;
ATTENTION: if you do not connect the COM13-16 the inputs from IN13 to IN16 do not work;

Connect COM17-20 to a positive voltage +V to activate the inputs from IN17 to IN20 with a GND;
Connect COM17-20 to a GND to activate the inputs from IN17 to IN20 with a positive voltage +V;
ATTENTION: if you do not connect the COM17-20 the inputs from IN17 to IN20 do not work;

Connect COM21-24 to a positive voltage +V to activate the inputs from IN21 to IN24 with a GND;
Connect COM21-24 to a GND to activate the inputs from IN21 to IN24 with a positive voltage +V;
ATTENTION: if you do not connect the COM21-24 the inputs from IN21 to IN24 do not work;

Connect COM25-28 to a positive voltage +V to activate the inputs from IN25 to IN28 with a GND;
Connect COM25-28 to a GND to activate the inputs from IN25 to IN28 with a positive voltage +V;
ATTENTION: if you do not connect the COM25-28 the inputs from IN25 to IN28 do not work;

Connect COM29-32 to a positive voltage +V to activate the inputs from IN29 to IN32 with a GND;
Connect COM29-32 to a GND to activate the inputs from IN29 to IN32 with a positive voltage +V;
ATTENTION: if you do not connect the COM29-32 the inputs from IN29 to IN32 do not work;

Connect COM33-36 to a positive voltage +V to activate the inputs from IN33 to IN36 with a GND;
Connect COM33-36 to a GND to activate the inputs from IN33 to IN36 with a positive voltage +V;
ATTENTION: if you do not connect the COM33-36 the inputs from IN33 to IN36 do not work;

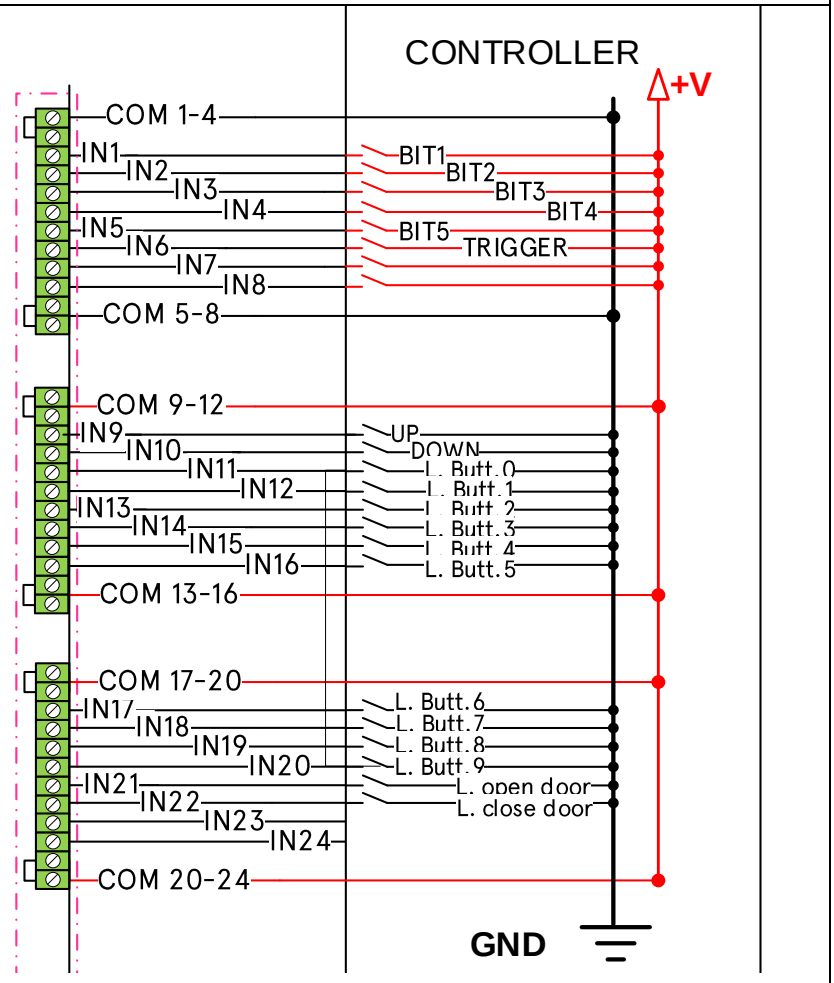
Connect COM37-40 to a positive voltage +V to activate the inputs from IN37 to IN40 with a GND;
Connect COM37-40 to a GND to activate the inputs from IN37 to IN40 with a positive voltage +V;
ATTENTION: if you do not connect the COM37-40 the inputs from IN37 to IN40 do not work;

Connect COM41-44 to a positive voltage +V to activate the inputs from IN41 to IN44 with a GND;
Connect COM41-44 to a GND to activate the inputs from IN41 to IN44 with a positive voltage +V;
ATTENTION: if you do not connect the COM41-44 the inputs from IN41 to IN44 do not work;

Connect COM45-48 to a positive voltage +V to activate the inputs from IN45 to IN48 with a GND;
Connect COM45-48 to a GND to activate the inputs from IN45 to IN48 with a positive voltage +V;
ATTENTION: if you do not connect the COM45-48 the inputs from IN45 to IN48 do not work;

EXAMPLE OF USE

10 stops elevator
5 bits binary for PI (positive signals +V)
UP and DOWN arrows (negative signals GND)
Trigger message (positive signal +V)
10 call buttons light (negative signals GND)
Open doors button light (negative signals GND)
Close doors button light (negative signals GND)
SOLUTION
I can program the first 5 inputs (IN1-IN5) as binary bits, then because these signals are positive I have to connect COM1-4 and COM5-8 to GND.
Now also IN6-IN8 are activated by a +V, then a cannot use them for arrows, but I can use one of them for trigger for floor message (IN6).
Starting with the new input group I can use two signals for arrows (IN9-IN10) then the 10 inputs lights buttons for call (IN11-IN20), one for open doors button light (IN21) and one for close doors button light (IN22).
Because the inputs from IN9 to IN22 are negative I have to connect the following inputs to a positive (+V): COM9-12, COM13-16, COM17-20, COM21-24.

GENIUS TOUCHSREEN EDITOR	TRANPONDER INPUT
	

3.3.2 Outputs in standard configuration

- TRANSPONDER LS->Output voltage GND
- TRANSPONDER ->Output voltage +V

Using the standard configuration (M I=O) the outputs work as programmed in the I/O SETTINGS of the touchscreen theme.
Each output can be used as:

- SERVICE BUTTON pushing a service button on the display, the corresponding output goes ON (+V on TRASPONDER, GND (+V on TRASPONDER LS);
- FLOORS BUTTONS pushing a call button on the display, the corresponding output goes ON (+V on TRASPONDER, GND (+V on TRASPONDER LS).

EXAMPLE OF USE

Continuing the example made for the input configuration, if we want our transponder to have the first 10 outputs (O1-O10) as call buttons and two others (O11-O12) for the DOOR OPEN and DOOR CLOSE buttons, I can use the following configuration:

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