


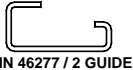
# EMB

## Signal splitting adapter

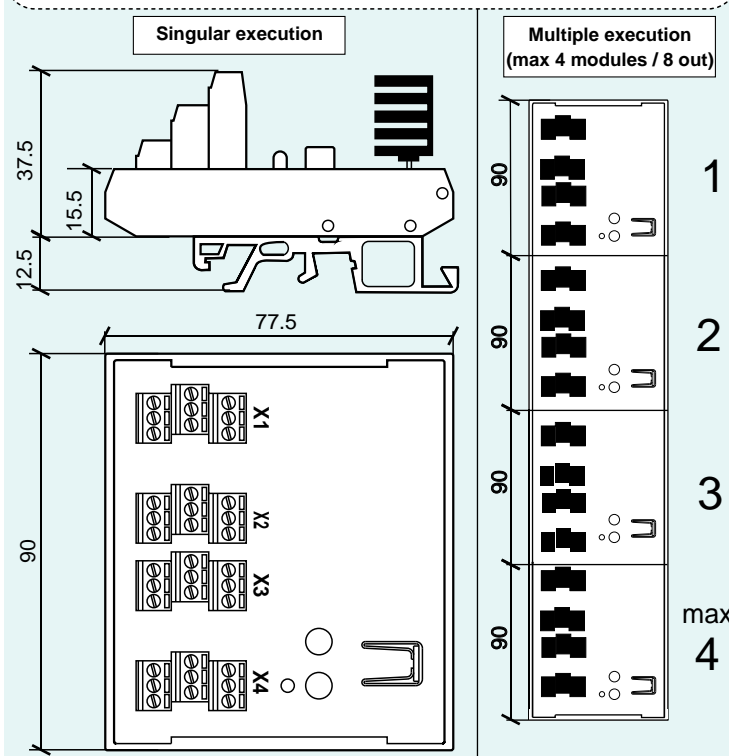


Various products

### Electronic Characteristics

Working voltage for INPUTS and OUTPUTS	5 Vdc / 8÷24 Vdc
Current consumption without load	70 mA
Max output current per channel	20 mA for LINE DRIVER 40 mA PUSH PULL
Max input current per channel	10 mA
Max operating frequency	100 KHz
Current absorbed in maximum operating conditions (A)	$I_{max} = \frac{0,12 (V_{x1} + V_{x2} + \dots + V_{xn} + V_{x4})}{V_{x4}}$ <p>Where:  <math>V_{x1}</math> = input voltage x1  <math>V_{x2}, \dots, V_{xn}</math> = output voltage X2, ..., Xn  <math>V_{x4}</math> = Voltage of power supply of the card</p>
Operating temperature	0° ÷ +50°C
Fixing on frame	 

### Sizes



### The EMB board

This board is used when it is necessary to adapt the electronic characteristics of the encoder and controlling apparatus connected between them.

**The main functions of the EMB are the splitting of the input signals and the adaptation of the output stages.**

It happens often, for example, that you have an encoder with an output of 5 Vdc and a control that accepts data only from 24 Vdc or the case in which the encoder has the same voltage of the control by a different electronics.

The possibilities offered by the EMB are many so the different solutions are checked at the confirmation of the order (see back the ordering code where the various options of the board are described).

It is important that on the board there may be present a maximum of two different voltages and that the board must be supplied only by the X4 connector, with the higher voltage of those present on the board. It is possible moreover to obtain a maximum of eight outputs, with a particular assembly of many boards situated on one a only support to reduce the wiring.

In this case in the ordering code they will be specified all the outputs. For a board with a 5 Vdc npn and eight output line drivers at 5Vdc, for example, the ordering code becomes **EMB5N5L5L5L5L5L5L5L**.

An example can clarify the typical application of such a board:

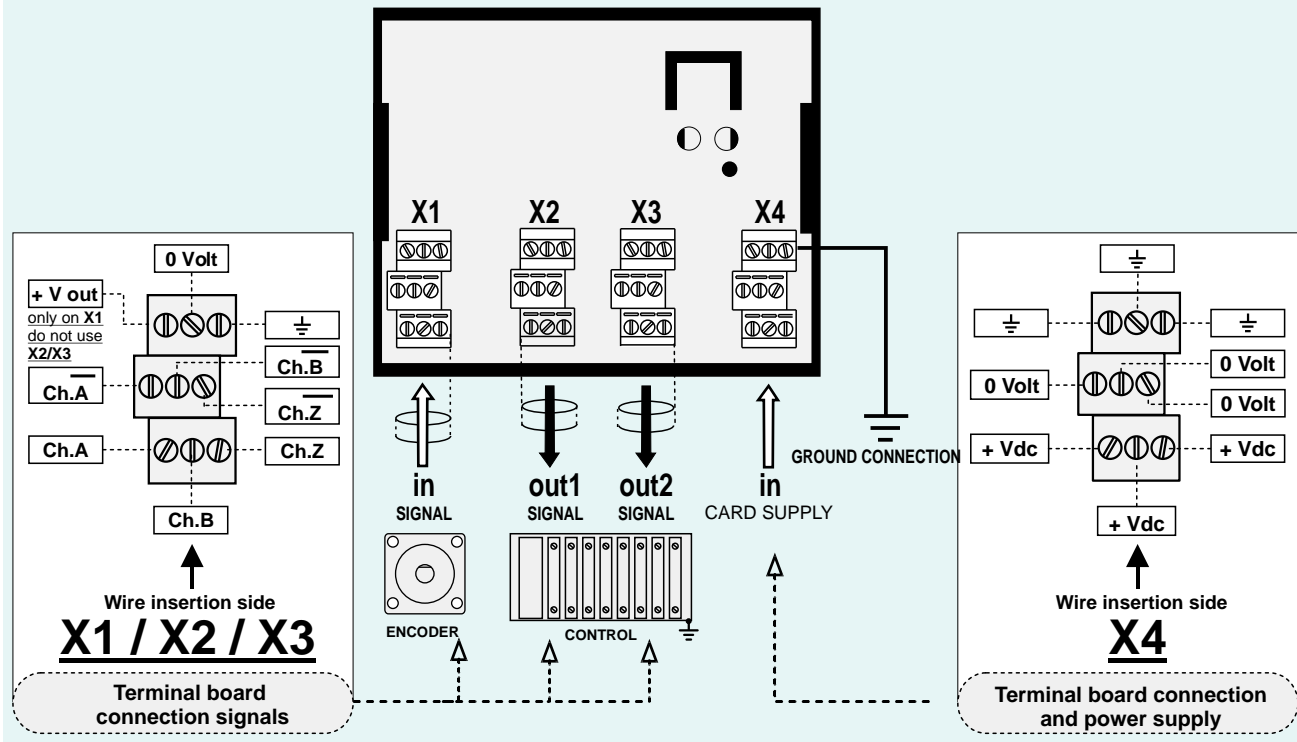
An encoder with 5Vdc line driver output must be linked at the same time to a control with the push-pull input of 24Vdc and to an instrument with line driver input at 5Vdc.

The board to be ordered will have this code :

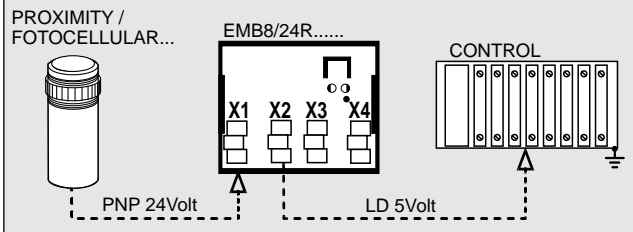
**EMB5L8/24P5L** where EMB5L indicates the input at 5Vdc line driver on the X1 connector, EMB5L8/24P indicates that the first output on the X2 connector has a push-pull electronic and is supplied with voltages from 8 to 24 Vdc, EMB5L8/24P5L indicates that the second output on the X3 connector has a 5Vdc line driver electronics.

The power supply of this board will be of 24 Vdc to link on the X4 connector.

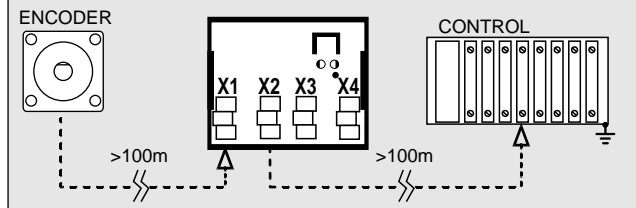
Working diagram and terminal board connection



EMB ADAPTATION OF ELECTRONIC SIGNALS



Examples of use



EMB AS INTERMEDIATE AMPLIFIER OF SIGNAL

Ordering codes

**EMB 5 L 8/24 P 8/24 P . XXX**

in      out1      out2  
                          optional output

**EMB** = Adapter signal splitter

**5**  
**8 ÷ 24**      Input power supply (Vdc) terminal board X1

**N** = NPN  
**C** = NPN OPEN COLLECTOR  
**P** = PUSH PULL  
**L** = LINE-DRIVER  
**R** = PNP  
**Electronic inputs terminal board X1**

**5**  
**8 ÷ 24**      Out1 Power supply (Vdc) terminal board X2

In case of particular Customer variant separate with a full stop

**XXX** = Particular Customer variant indicated by a progressive number from 001 to 999

**N** = NPN  
**C** = NPN OPEN COLLECTOR      **Electronic out2 terminal board X3**  
**P** = PUSH PULL  
**L** = LINE-DRIVER

**5**  
**8 ÷ 24**      Power supply out2 (Vdc) terminal board X3

**N** = NPN  
**C** = NPN OPEN COLLECTOR      **Electronic out1 terminal board X2**  
**P** = PUSH PULL  
**L** = LINE-DRIVER

