



### DISPLAY COUNTING WITH RELATIVE COUNT AND PROGRAMMABLE INPUT



#### HARDWARE FEATURES:

- Container: Self extinguishing insulating material N185 NORYL. Dimensions 48x96  
DIN43700
- Display: 7 segment display with 6 figures and signs
- Keyboard: Thermoformed with antiscratch film, made of polyester insulating material  
The keys are guaranteed for 1.000.000 working schedules. Realization power 250gr; run  
0,4mm
- Terminal board: Extractable and polarized with supervision certificate IMQ n.ED622 in conformity  
with IEC998-1(1990) and IEC 998-2-1 (1990).  
Working Temperature -40°C +110°C ; cat.climatica 40/11021 Sec.IEC
- Power: 24/110/220 Vac to be specified in the order  
Possible variations +/- 10% of the nominal voltage. Consumption 5,5Watt
- Transformer: 7VA Soaked with 3000 Volt insulating voltage, built in conformity with the laws  
CEI 14-6 and VDE 0551
- Memory: EEprom 93C46 with more than 10 years data retention
- Microprocessor: Motorola 68HC711D3
- Inputs: Optoinsulated at maximum 2500Volt ON/OFF 24Vdc. Maximum frequency 20Hz  
(software filter)
- Outputs: No used
- CE Norme conforming CEI50081-1 e CEI 50082-2

#### SOFTWARE FEATURES:

The instrument display a absolute counter read by bidirectional incremental encoder (F.max. 2Khz).  
Two configurable input can be used to managing de counter. Is possible enable a relative counter by keyboard  
selection.

## Application Note

### Ou locate the instrument

- Raggruppare, se possibile, la strumentazione in una zona separata dalla parte di potenza e dai relè.
- Evitare che nello stesso quadro ci siano: teleruttori ad alta potenza, contattori, relè ecc., gruppi di potenza a tiristori e in particolare modo a sfasamento, motori ecc..
- E' buona norma evitare la polvere, l'umidità, i gas corrosivi e la vicinanza di fonti di calore ricordando che la temperatura di lavoro dello strumento può variare nel campo 0-40 gradi.

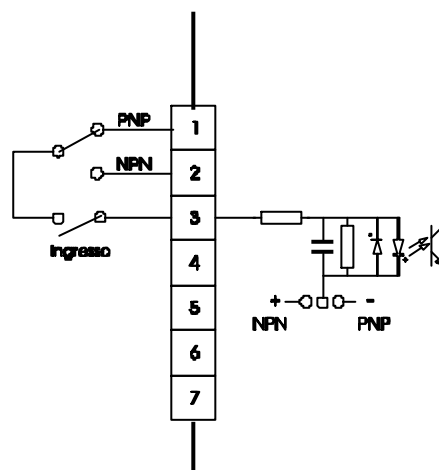
#### Alimentazione

La tensione di rete deve:

- essere stabile ed eventuali transitori non dovranno superare +/-15% del valore nominale e per una durata non superiore a 0,5 secondi.
- proveniente da un dispositivo di sezionamento che abbia una protezione con fusibile per la parte strumenti
- L'alimentazione degli strumenti deve essere la più diretta possibile partendo dal sezionatore e inoltre: nei casi in cui è fortemente disturbata è consigliabile montare un trasformatore di isolamento collegandone lo schermo a terra che serva solo per lo strumento. E quindi importante che l'impianto sia dotato di un buon collegamento di terra, che la tensione tra neutro e terra non sia superiore ad 1 volt e che la resistenza ohmica sia inferiore a 6.
- Nel caso in cui la tensione sia fortemente variabile alimentare lo strumento con uno stabilizzatore di tensione. In prossimità di generatori ad alta frequenza impiegare opportuni filtri di rete.
- In generale la linea di alimentazione deve essere separata dalle linee di ingresso e uscita dello strumento.

## CONNECTIONS

### ON-OFF INPUTS:



The inputs can be type NPN or type PNP and must be order correct





Electrical features:

Maximum voltage 24Vcc




Impedance 1k2 ohm

Maximum frequency: 2kHz for F1 and F2 input and with a 50 mseconds input filter in the software for other

## THE KEYBOARD

Keys	Description of their working
	<p>If pressed together with the ENTER + PASSWORD keys, it gives access to the SET-UP parameters</p> <p>During the data input operation, it moves the figure selection rightwards</p> <p>If pressed it visualizes relative count</p>
	<p>During the data input operation, it increases impulsively or continually the selected figure (the flashing one)</p> <p>When pressed for 2 seconds, it visualizes the input situation</p>
	<p>During the data input operation, it clears the visualized datum</p> <p>If connected and pressed for 1 second, it clears the result register or load preset in to the count</p>
	<p>If pressed together with the RIGHT arrow key + PASSWORD, it gives access to the SET-UP parameters</p> <p>It confirms the data input operation.</p> <p>Durin the introduction data, confirm the data value.</p> <p>When pressed, it allows to programme the pre-selection of the count</p>

## SET-UP

To have access to the set-up, press together the  key and the  key; after 2 seconds, you will have the writing S **000** on the display. Write 211 with the Right Arrow key and the Up Arrow key; then, confirm with .


Parametro	Display	Descrizione	Limiti
Decimal point	<b>1</b> <b>0</b>	Is the data number for visualized data. (decimal point)	0-3
Encoder multiplier	<b>29.99999</b>	the encoder input is multiplied for this number and the display visualize the result. Coeff.= visualized data/ Input enc N.B. the visualized data not count the decimal point. Es. 1.234=1234	0.001-9.99999
Key ENTER working	<b>3</b> <b>0</b>	0= ENTER key is not connected 1= When pressed, it allows to programme the pre-selection of the count	0-1
Key CLEAR working	<b>4</b> <b>0</b>	0=CLEAR key is not connected 1=Reset count 2=Load preset value	0-2
Preset value	<b>5999999</b>	Preset value	-99999 999999
Configuration I3	<b>6</b> <b>0</b>	0= No connected 1=Input 4 enable 2=Impulse load preset 3=To go load preset 4= Add the preset at count (if I3=ON) 5=Subtract the preset at count 6= Add the preset at count (impulse mode) 7= Subtract the preset at count (impulse mode)	0-7
Configuration I4	<b>7</b> <b>0</b>	0= No connected 1=Input 3 enable 2=Impulse load preset 3=To go load preset 4= Add the preset at count (if I4=ON) 5=Subtract the preset at count 6= Add the preset at count (impulse mode) 7= Subtract the preset at count (impulse mode)	0-7
Relative count ability	<b>8</b> <b>0</b>	0=no connected 1=Relative count ability if press the up arrow key 2= Relative count ability if press the right arrow key 3= how function 1 bat with relative counter diplayed, this is reset by key arrow DX 4= how function 2 bat with relative counter diplayed, this is reset by key arrow DX .	0-4

## INPUTS

Terminal number	Input	Description of their working
3	I1	Input programming (set-up)
4	I2	Input programming (set-up)
5	F1	Fase 1 encoder
6	F2	Fase 2 encoder

## PROGRAMMING

To start programming of the count, do as follows:

Press the  ; the display visualizes:

**C      O**


Using the right arrow key and the up arrow key, the user can select the figure which has to be put in (from

999999 to -.99999) when confirming with the  key, the display shows again the main visualization.


## VISUALIZATING

During the work display show:

**1 2 3 4 5 6**    Count

Using the  key: the display visualizes:

**r      1 2 3 4**    Relative count

Pressing the  key for 2 seconds, the display visualizes:

**1 2 3 4**      Input state

Pressing again the  key, the display gets back to the main visualization.

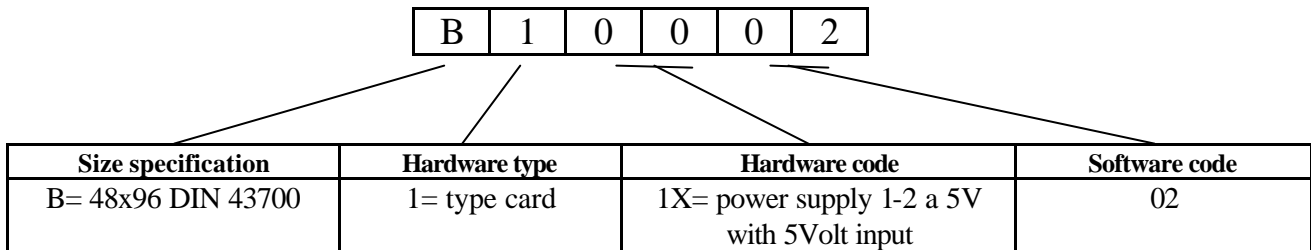
If the visualized data is out of the scale, the display will visualize the letter “e” on its place.

**E E E E E E**

## CONNECTIONS

Terminal number	Name	Description
1	+	+12 Volt 0,1 Ampere Output. It can be used to give power to transducers and input wires
2	-	- Volt 0,1 Ampere Output. It can be used to give power to transducers and input wires
3	I1	Input
4	I2	Input
5	F1	Input 1 encoder
6	F2	Input 2 encoder
7	VAC	Terminal to give power to the instrument
8	VAC	Terminal to give power to the instrument
9	GND	Ground terminal

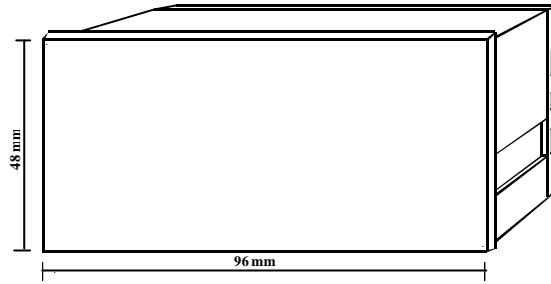
## ORDER CODE



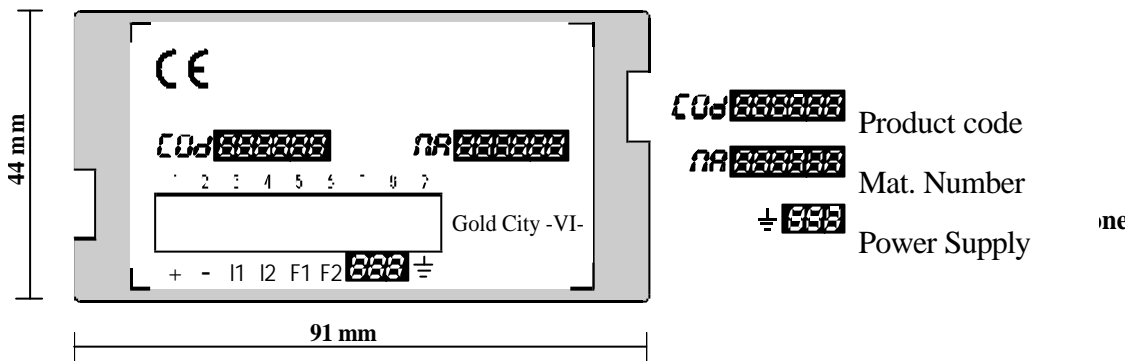
Warning: On the order, you must specify the power voltage of the instrument which can be 24-110-220 VAC and input type (NPN or PNP)

# DIMENSIONS

## Front pannel



## Back pannel



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La Gold City esclude ogni sua responsabilità da danni causati da un errato o improprio utilizzo dello strumento