



[DITEL:](#) [PRODUCTS:](#) [DIGITAL STARS:](#) **81100Y0X**



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## DESCRIPTION

Model 811 panel voltmeters are specific instruments for readout DC voltages up to 1000V.

They are simple, low-cost indicators, without output or setpoint option, easy to install and put into operation.

Taking out the frontal lens provides access to decimal point location and to span adjustment with a margin of 20%. The zero adjustment is automatic except for the 199.9mV range, for which the meter incorporates an amplifier option.

Fully configured at the factory upon request, it is possible to modify later the scale by changing the value of an internal shunt as indicated in the following page.

Power and signal connection is realized by means of a 6-pin MAT-N-LOK AMP connector located at the rear of the unit.

## SELECTION GUIDE

<b>81100</b>	<b>Y</b>	<b>0</b>	<b>X</b>
<b>SUPPLY POWER</b>			
115V 50/60Hz	1		
230V 50/60Hz	2		
12V DC ISOLATED	4		
24V 50/60Hz	7		
24V DC ISOLATED	8		
<b>SCALES</b>			
1.999V			1
19.99V			2
199.9V			3
1000V			4
1999mV			6
199.9mV			7
<b>SILKSCREENED UNIT</b>			

## ORDERING EXAMPLE

### 8110 0203 E25 DC: voltmeter Series 800

Supply power: 230V AC (50/60Hz)

Scale: 199.9V DC - Unit: V DC

Format: 96x48mm. - 3½ digits

## SPECIFICATIONS

### INPUT SIGNAL

- Configuration Differential asymmetrical
- Maximum allowable voltage Vmax.(IN)
- Input impedance Z (IN)

SCALE	Vmax.(IN)	Z (IN)
199.9mV	5V	100Mohm
1.999V	5V	100Mohm
19.99V	50V	1Mohm
199.9V	500V	1Mohm
1000V	1000V	4Mohm

- Common mode max. voltage (signal/power)

AC Voltage 1000V DC or 1500V ACpp

DC Voltage ±400V DC

### POWER

- Supply voltages

AC (50/60Hz) 24, 115, 230V AC

DC (isolated) 12, 24V DC

- Maximum isolation 1000V DC or 1500V ACpp

- Consumption 3W nominal

### ACCURACY

- Resolution 0.05% F.S.

- Maximum error 0.10% F.S. ±1 digit

### DISPLAY

- Type red LED (0.56") 14mm. high

- Overrange 1999. (3 L.S.D. blanked)

- Polarity automatic (±) sign

- Reading rate 4 per second

### GENERALES

- Operating temperature 0°C to 50°C

- Storage temperature -25°C to +85°C

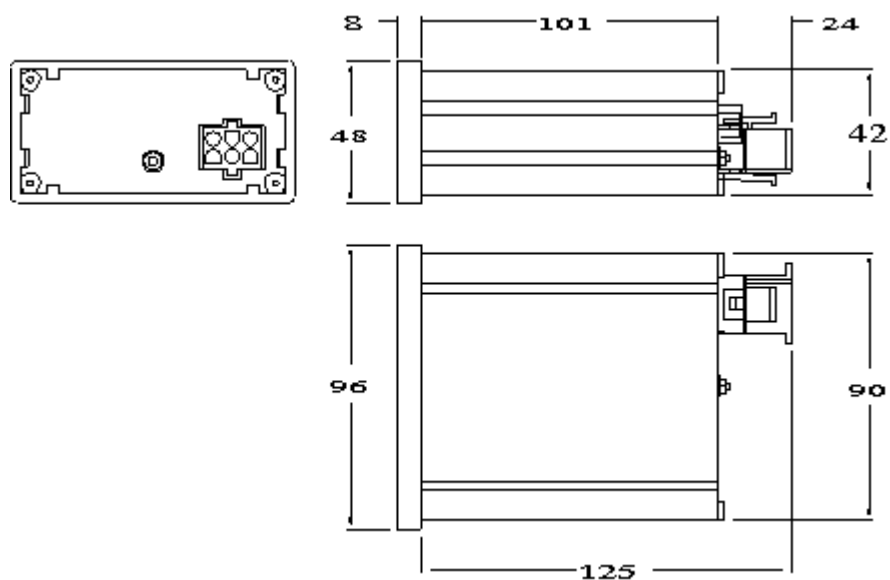
- Relative humidity max. 95% (non condensing)

- Weight 300g

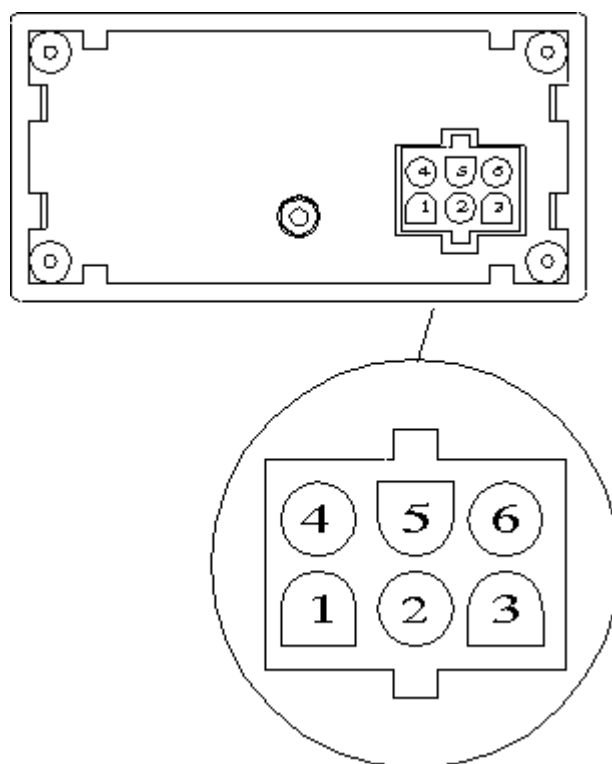
- Dimensions 96x48x110mm. (s/DIN 43700)

- Case material 94 V-0 UL-rated polycarbonate

## DIMENSIONS (mm)



## SIGNAL AND POWER CONNECTION



Input signal

PIN 1 Spare

PIN 2 Input signal (+)

PIN 3 Input signal (-)

PIN 5 Spare

AC supply power

PIN 4 AC HI

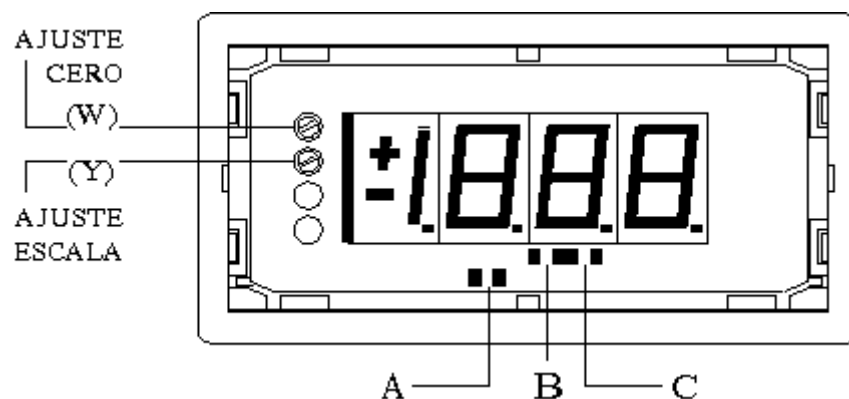
PIN 6 AC LO (neutral)

DC supply power

PIN 4 DC positive (+)

PIN 6 DC negative (-)

## SETUP AND CALIBRATION

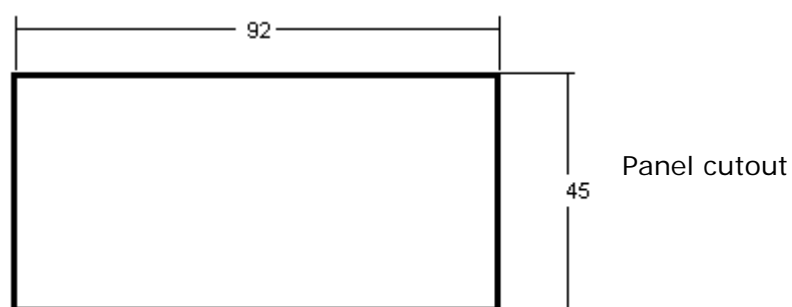


Jumper	Display
A	1.999
B	19.99
C	199.9
Ninguno	1999

The **span adjustment** is made by the potentiometer (Z) located to the left, lower side of the display. Turning clockwise increases the display reading. The adjust margin is  $\pm 20\%$  of F.S.

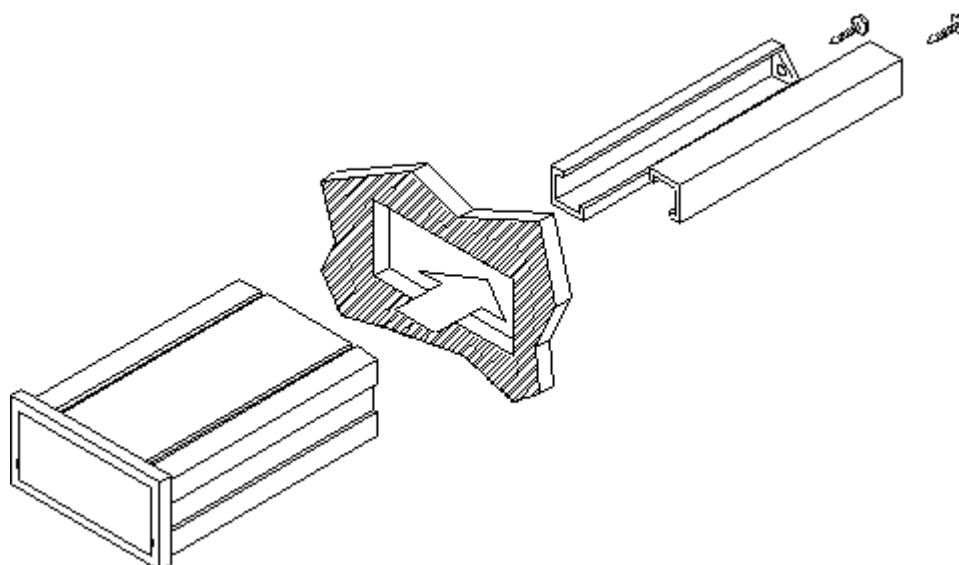
The zero adjustment is only necessary for the 199.9mV range.

## MOUNTING

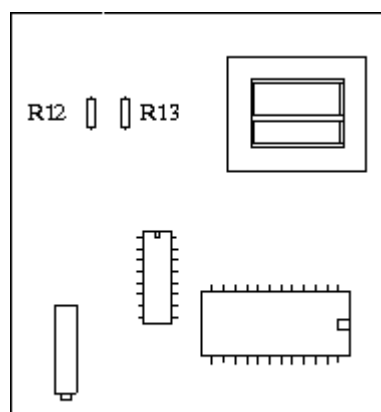


Min.thickness: 0.8mm

Max.thickness: 10mm



## SCALING

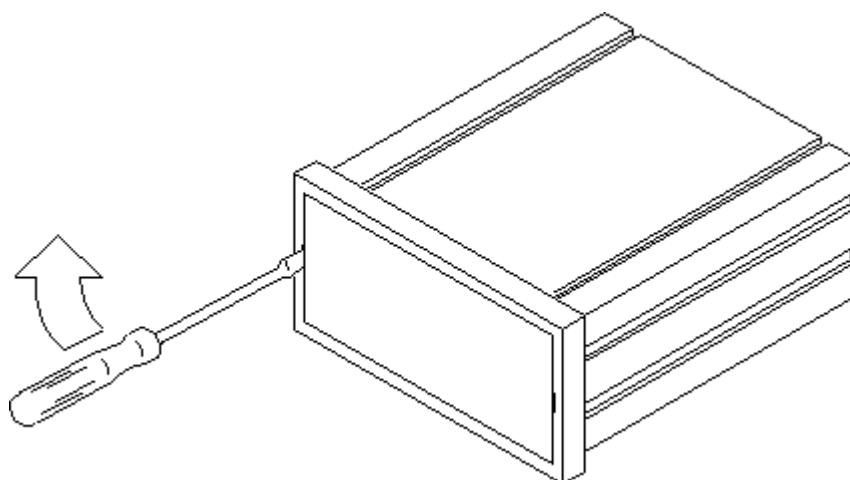


POTENCIOMETRO  
DE AJUSTE

To change the scale, modify the values of R12 and R13 as follows:

Scale	R12	R13
1000V	4x1Mohm	4kohm
199.9V	1Mohm	10kohm
19.99V	1Mohm	110kohm
1.999V	-	-
199.9mV	-	-

## ACCESS TO CALIBRATION



Remove lens by placing an appropriate sized screwdriver in the slot and pushing laterally as it is shown in the figure until the lips disengage.

For further configuration unscrew the rear nut to take the circuits out from the front of the case. To reinstall lens, insert it completely from one side and press from the other until it is fitted.

**Warranty:**

Press the icon to see it.



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