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DESCRIPTION

Model 817S panel voltmeters are specific instruments that readout and control RMS values of sinusoidal signals up to 1000V AC.

Available options include analog or digital outputs and setpoint control which is programmable by either hidden or visible presets.

One selector provides adjustable time delay or hysteresis to limit relay action.

Fully configured at the factory, the following items remain accessible of reconfiguration:

- The input card (signal amplitude, gain).
- Preset values and alarm operating modes. Time delay (0 to 15 seconds) or hysteresis levels (0 to 10 counts of L.S.D.).
- The output card for the type of signal and its range.
- Zero, span adjustments and decimal point location.

SELECTION GUIDE

817	S	0	Y	C	X
PRESET / RELAY					
NO PRESET	0				
1 VISIBLE PRESET	1				
2 VISIBLE PRESETS	2				
1 HIDDEN PRESET	5				
2 HIDDEN PRESETS	6				
SUPPLY POWER					
115V 50/60Hz			1		
230V 50/60Hz			2		
12V DC ISOLATED			4		
24V 50/60Hz			7		
24V DC ISOLATED			8		
OUTPUT					
NONE				0	
RS 232C				1	
BCD (OE)				2	

0-10V/0-1V				3	
0-20mA/4-20mA				4	
RS 232/20mA				5	
BCD (OC)				6	
1mV/count				8	
SCALE					
1.999V				1	
19.99V				2	
199.9V				3	
1000V				4	
1999mV				6	
199.9mV				7	
UPON REQUEST				9	
SILKSCREENED UNIT					

ORDERING EXAMPLE

8172 0244 E21 : AC voltmeter Series 8000

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

2 visible presets. Range: 1000V

Output: 4-20mA Unit: V AC

SPECIFICATIONS

INPUT SIGNAL

- Configuration differential asymmetrical
- Frequency margin 40 to 500Hz
- Maximum allowable voltage $V_{max. (IN)}$
- Input impedance $Z (IN)$

SCALE	$V_{max. (IN)}$	$Z (IN)$
199.9mV	50V	1Mohm
1999mV	50V	1Mohm
1.999V	50V	1Mohm
19.99V	50V	1Mohm
199.9V	250V	1Mohm
1000V	1000V	3Mohm

- Common mode max. voltage (signal/power)

AC Voltage 1000V DC or 1500V ACpp

DC Voltage $\pm 400V$ DC

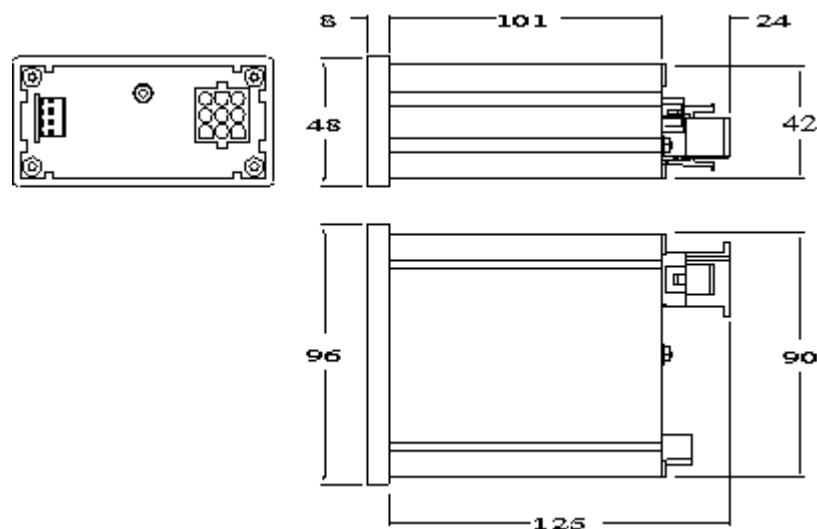
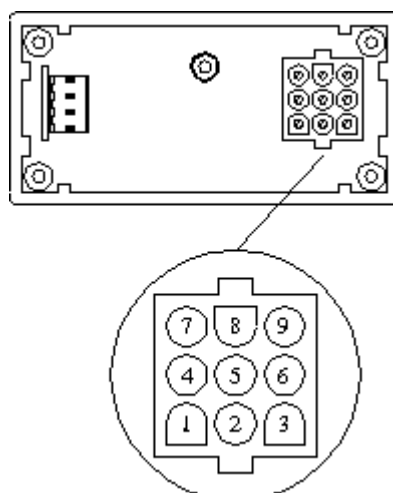
POWER

- Supply power

AC (50/60Hz)	24, 115, 230V AC
DC (isolated)	12, 24V DC
• Maximum isolation	1000V DC or 1500V ACpp
• Consumption	5W nominal

ACCURACY

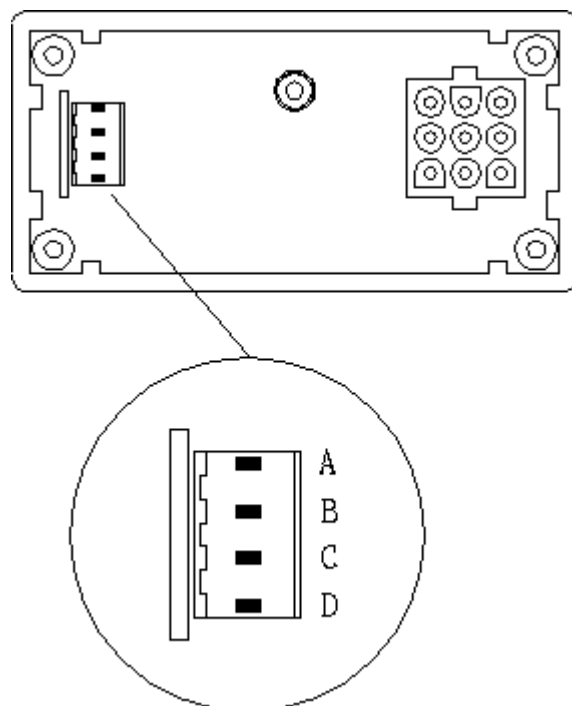
• Resolution	0.05% F.S.
• Maximum error	0.10% F.S. ± 1 digit

DIMENSIONS (mm)**POWER CONNECTION**

AC power supply
 PIN 7 AC HI
 PIN 9 AC LO (neutral)

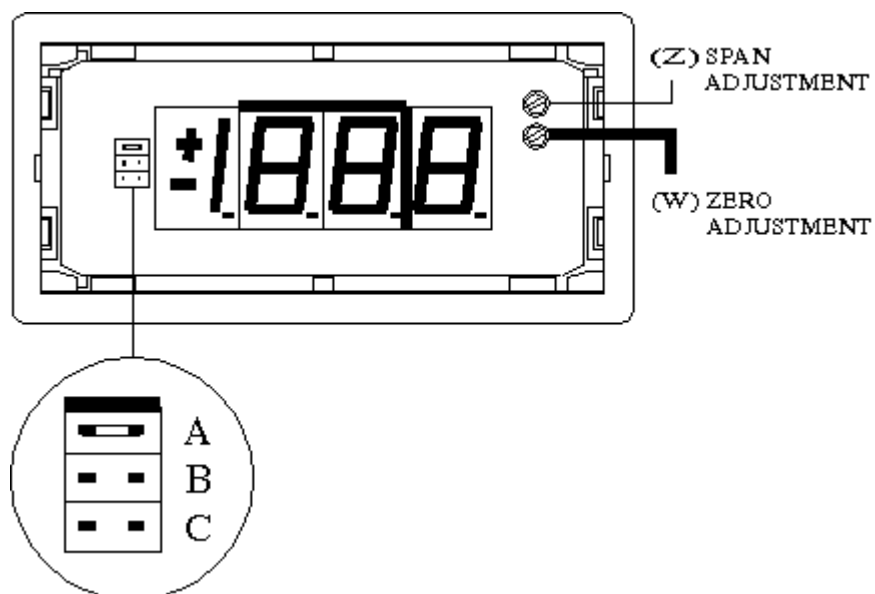
DC power supply
 PIN 7 DC positive (+)
 PIN 9 DC negative (-)

SIGNAL CONNECTION



Signal connection
 PIN A AC input signal
 PIN B Spare
 PIN C Spare
 PIN D AC input signal

SETUP AND CALIBRATION



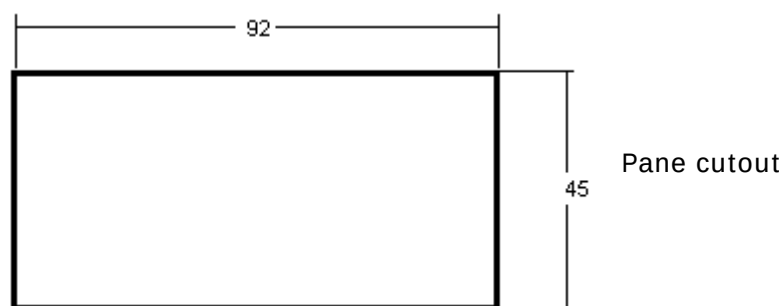
Jumper	Display
A	1.999
B	19.99
C	199.9

None	1999
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The zero and span adjustment is made via the potentiometers (W) and (Z) respectively, located to the upper, right side of the display. Turning clockwise increases the display readout.

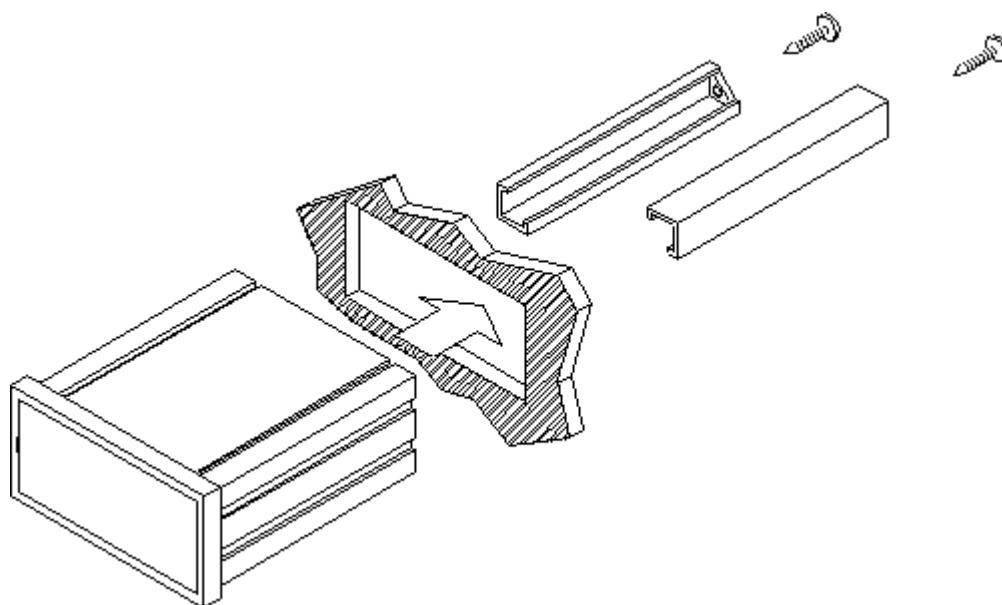
The zero adjustment margin is ± 3 counts. The span adjustment margin is $\pm 20\%$ of F.S.

MOUNTING

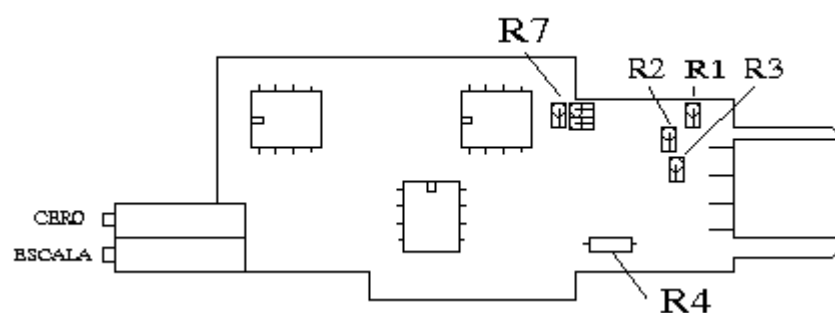


Min. thickness: 0.8mm

Max. thickness: 10mm



SCALING



Input card REF. 269

BUILT-IN SCALES			
SCALE	R1+R2+R3	R4	R7
199.9mV	0ohm	1Mohm	10kohm
1999mV	0ohm	1Mohm	1Mohm
1.999V	0ohm	1Mohm	1Mohm
19.99V	1Mohm	121kohm	none
199.9V	1Mohm	11kohm	none
1000	3x1Mohm	3630ohm	none

USER-SELECTED SCALES

To obtain a specific display value VD corresponding to a specific input voltage VE, calculate the value of R4 and place the resistors R4, R1, R2 and R3 whose values are given here below.

For 20V < VE < 200V :

$$R4 = 1000 * VD / 833 * VE - VD$$

$$R1 + R2 + R3 = 1Mohm$$

For 200V < VE < 1000V :

$$R4 = 3000 * VD / 833 * VE - VD$$

$$R1 + R2 + R3 = 3x1Mohm$$

Where : VE = Input voltage in volts

VD = Display disregarding decimal point

Warranty:

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