3-1/2D LCD Digital Penal Meter
PM128/PM-188

1. FEATURES

200mV full scale input sensitivity
Single 9V DC operation
Decimal point selectable
13mm figure height
Automatic Polarity indication
Guaranteed zero reading for 0 volt input
High input impedance (>100MΩ)
Easy Bezel fixing Method

2. APPLICATIONS

Voltmeter	Current Meter
Thermometer	Capacitance Meter
PH Meter	Lux Meter
dB Meter	LCR Meter
Watt Meter	Other industrial & domestic uses.

3. SPECIFICATIONS

Maximum Input:	199.9mV DC
Maximum Display:	1999 counts (3-1/2 Digits) with automatic polarity indication
Indication Method:	LCD Display
Measuring Method:	Dual-Slope Integration A-D converter system
Overrange Indication:	"1" shown in the display
Reading rate time:	2-3 readings per second.
Input Impedance:	>100MΩ
Accuracy:	±0.5% (23°±5°C, < 80%RH)
Power Dissipation:	1 mA DC
Decimal Points:	Selectable with wire jumper
Supply Voltage:	7-11V DC
Size:	68mm x 44mm

4. OPERATION

A) If needed, add proper voltage dividers (not included) and decimal point wire jumper

Max. Voltage to be measaured	Proper Voltage Divider	Decimal Point Fixing Method
200mV	-	Shortcircuit P1 on and P2,P3 off
20V	Disconnect wire jumper in RB, RA=100KΩ RB=9.9MΩ	Shortcircuit P2 on and P1,P3 off
200V	Disconnect wire jumper in RB, RA=10KΩ RB=9.99MΩ	Shortcircuit P1 on and P2,P3 off
500V	Disconnect wire jumper in RB, RA=1KΩ RB=9.999MΩ	

Shortcircuit N on to enable polarity sign function or shortcircuit N off to disable polarity sign function.
RA and RB are 1/2W 0.5% Metal Film Resistors.

b) Connectgion 7-11 V DC power supply to panel metel, pay attention to the proper polarity.

c) For range other than 200 mV, input accurate 1/2 x Max. Voltage generated by calibrator (e.g. 100.0V for 200.0V range) and carefully adjust the semi-fixed resistor R4 to have same reading in LCD.

d) Connect the input voltage to be measured to Vin and GD. The input voltage should be DC only.