3 ½ Digit LCD Digital Panel Meter
PM-428 / PM-438

1. Features:

- 200mV full scale input sensitivity
- Single 9VDC operation
- Decimal point selectable
- 13mm LCD figure height
- Automatic polarity indication
- Guaranteed zero reading for 0 volts input
- High input impedance (>100MΩ)

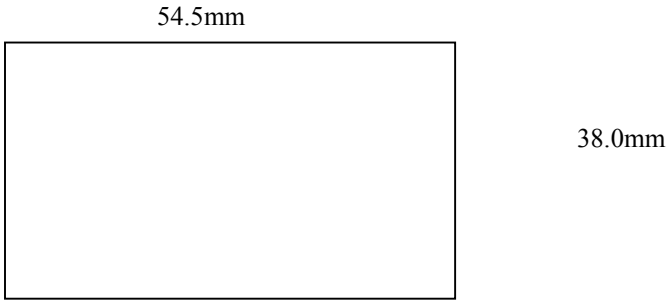
2. Applications

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

3. Specifications

- Maximum input: 199.9VDC
- Maximum display: 1999 counts (3 ½ digit) with automatic polarity indication
- Indication method: LCD display
- Measuring method: dual-slope integration A-D converter system
- Over-range indication: "1" shown in the display
- Reading rate time: 2 – 3 readings per second
- Input impedance: >100MΩ
- Accuracy: +/-5% (23^0 +/-5^0, <80% RH)
- Power dissipation: 1mADC
- Decimal point: selectable with wire jumper
- Supply voltage: 8 to 12VDC
- Size: 68mm x 44mm

4. Panel hole for fixing PM-428 / PM-438:



5. Operation:

A) If needed, added proper voltage dividers (not included) and decimal point jumper:

Maximum Voltage to be Measured	Proper Voltage Dividers	Decimal Point
200mV	---	Short-circuit P3
20V	Disconnect wire jumper in RB, RA=9.9MΩ RB=100kΩ	Short-circuit P2
200V	Disconnect wire jumper in RB, RB=9.99MΩ RA=10kΩ	Short-circuit P3
500V	Disconnect wire jumper in RB, RB=9.999MΩ RA=1kΩ	

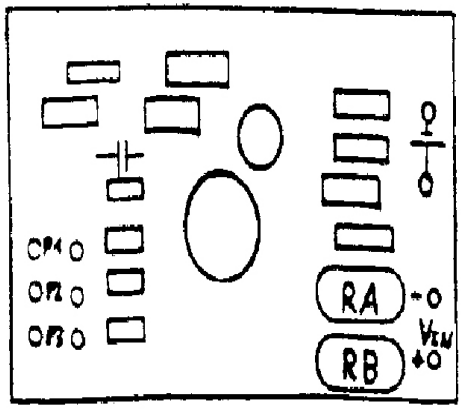
RA and RB are 1/2W 0.5% metal film resistors

B) Connect an 8 to 12VDC power supply to the panel meter.

6. Wiring Diagram:

C) For ranges other than 200mV, input accurate 1/2x maximum voltage generated by calibrator (e.g. 100.0V for 200.0V range) and carefully adjust semi-fixed resistor R2 to have the same reading in LCD.

D) Connect the input voltage to be measured to Vin and GND. The input voltage should be DC only.



8-12V
DC

Input Signal
to be measured