

# 4-1/2D LCD Digital Panel Meter PM-328

## 1. FEATURES

- 200.0mV Full Scale input sensitivity
- Single 9V DC operation (independent 7-12VDC)
- Decimal Points selectable
- 11mm LCD figure height
- Automatic Polarity Indication
- High input impedance (>100 Mohms)

## 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:        | 199.99mV DC   |
| Maximum Display:      | 19999 counts (4-1/2 Digit) with automatic polarity indication |
| Indication Method:    | LCD display   |
| Measuring Method:     | Dual-Slope Integration A/D converter system                   |
| Overrange Indication: | "1" shown in the display                                      |
| Input Impedance:      | >100 Mohms  |
| Accuracy:             | +/-0.05% (23°+/-5°C, <80% RH)                                 |
| Power Dissipation:    | 0.5mA DC  |
| Decimal Points:       | Selectable with wire jumpers                                  |
| Supply Voltage:       | INDEPENDENT 7-12V DC  |
| Size:                 | 68mmx44mm   |

## 4. OPERATION

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

Max. Voltage to be measured	Proper Voltage Divider	Decimal Point
200mV	-	Shortcircuit P2
2V	Disconnect wire jumper in RB. RB=9 Mohms RA=1 Mohms	Shortcircuit P4
20V	Disconnect wire jumper in RB. RB=9.9 Mohms RA=100 Kohms	Shortcircuit P3
200V	Disconnect wire Jumper in RB. RB=9.99 Mohms RA=10 Kohms	Shortcircuit P2
500V	Disconnect wire Jumper in RB. RB=9.999Mohms RA=1 Kohms	Shortcircuit P1

RA and RB are 1/2W 0.05% Metal Film Resistors.

- B) Connect an independent 7-12V DC power supply to Panel Meter.
- C) For ranges other than 200mV, input an accurate 1/2 x Max. Voltage generated by an calibrator (e.g. 100.0V for 200.0V range) and carefully adjust the Semifixed Resistor R1 to have the same reading in LCD.
- D) Connect the input voltage to be measured to Vin. The input voltage should be DC only.

## 5. WIRING DIAGRAM

