



D1 International, Inc.

**DPM6045
DPM6045/BL**

**Multirange Precision
4 1/2 DIGIT LCD METER
With RUN/HOLD
With and without Backlight**



FEATURES:

- Selectable:
 - Voltage/current ranges
 - Single ended or differential input
 - Decimal point position
- Single 5VDC power supply
- Easy to read 0.46" LCD readout
- RUN/HOLD Control
- Automatic zero and polarity
- High input impedance
- Simple snap-in installation
- Built-in bezel

The DPM6045 is a compact high precision digital panel meter having a high degree of flexibility. Four input measuring ranges and decimal point positions are independently selectable. A single 5VDC low power source powers the meter and the LED backlight.

ELECTRICAL SPECIFICATIONS:

Display:	4.5 Digit LCD with decimal points 0.46" (11.8mm) character height
Input voltage Range: (Selectable)	$\pm 199.99\text{mVDC}$, $\pm 1.9999\text{VDC}$, $\pm 19.999\text{VDC}$ or $\pm 199.99\text{VDC}$
DC Current Range:	199.99mA to 10,000 Amps (Contact D1 International)
Accuracy:	
200mVDC & 2VDC Range:	$\pm 0.05\% \pm 2$ counts
20VDC & 200VDC Range:	$\pm 0.2\% \pm 2$ counts
Input Impedance:	
200mVDC & 2VDC Range:	>1,000 megohms
20VDC & 200VDC Range:	Approx. 10 megohms
Power Supply:	5VDC +5%, -2% @ <2mA, 45mA w/BL
Temperature Coefficient:	60ppm/ $^{\circ}\text{C}$
Conversion Rate:	Approx. 2 times/second
Overrange Indication:	"1" on left side of display
Operating Temperature Range:	0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$
Operating Humidity	Up to 85%, noncondensing
Weight:	Approx. 1.76 oz. (50g)

ORDERING INFORMATION:

Model DPM6045: Without Backlight
Model DPM6045/BL: With Backlight

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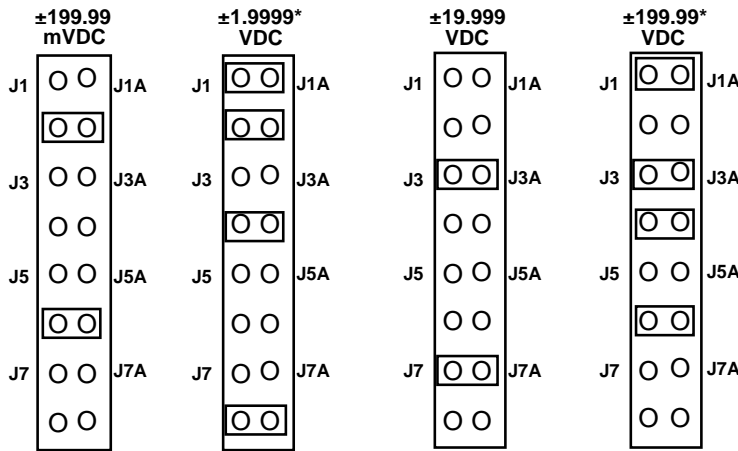


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Jumper Functions:

- **Single Ended Input:** With jumper across J1-J1A, meter **Input Lo** is tied to power supply minus (-).
- **Differential Input:** With no jumper across J1-J1A, meter **Input Lo** is floating.
- **Voltage Measuring Ranges:** Jumper combinations across pin positions J2-J2A, J3-J3A or J4-J4A determine input measuring range ($\pm 199.99\text{mVDC}$, $\pm 1.9999\text{VDC}$, $\pm 19.999\text{VDC}$ or $\pm 1999.9\text{VDC}$). (See diagrams below.)
- **Decimal Point Position:** Jumper pin positions J6-J6A through J8-J8A determine decimal point position and is independent of input measuring range. With no jumpers across J6-J6A through J8-J8A, no decimal point is displayed.

JUMPER POSITIONS FOR DIFFERENT RANGES



*Example: Shown with jumper position J1-J1A for Single Ended operation.

DC CURRENT MEASUREMENT
Chart below shows values of external shunts and meter resolution for measuring DC current from 200mA to 10,000 Amps. Meter must be in 200mVDC range. If shunt is not at power supply ground (-) level meter must be in *Differential Mode*.

Range DC Amps	Shunt Res./mVDC	Resolution DC Amps
0.2	1 Ohm	0.00001
2	0.1 Ohm	0.0001
5	50mV	0.001
10	100mV	0.001
50	50mV	0.01
100	100mV	0.01
500	50mV	0.1
1000	100mV	0.1
5000	50mV	1

TERMINAL CONNECTIONS:

1. Input HI (+)
2. Input Lo (-)
3. Backlight (DPM6045/BL only), connect to +5VDC
4. Connect to +5VDC for HOLD control
5. Power Supply plus (+5VDC)
6. Power Supply minus (-)

