

TEXMATE



0.56"
LEDs



UM-45MV

50mV DC Full Scale
4 1/2 DIGIT with 0.56" LEDs
in a Traditional NEMA Style Case

Accepting DC signals as low as 50mV full scale, this meter can economically measure high DC Amps, using low voltage drop current shunts, or for other precision low DC mV measurements.

General Features

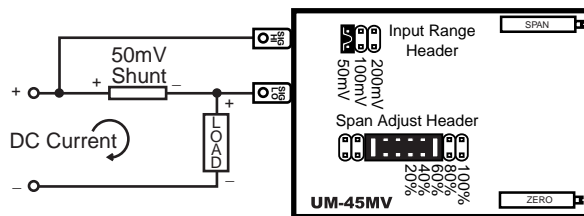
The UM-45MV is an economical, high resolution DC voltage measuring meter with three header selectable full scale ranges of 50mV, 100mV and 200mV. A five position Span Adjust header facilitates scaling in engineering units.

The meter is particularly suited for measuring DC current using 50mV standard current shunts. The ability to accurately measure shunts with even lower voltage drops can produce substantial energy savings, for example 10mV can display 5000 Amps. Display Hold and Display Test functions are also provided.

The standard meter has a high efficiency red LED display and user selectable AC power inputs of 100V AC to 120V AC or 200V AC to 240V AC are provided. An Optional 24V AC or an auto sensing isolated AC/DC 24V switching power supply can be ordered. (See ordering information)

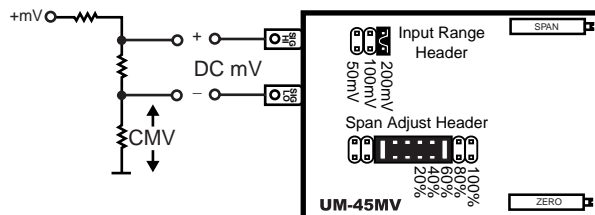
Typical Application Connections

DC Current measurement using 50mV Shunt.
Easily User Scaled to Display Currents up to 19999 Amps.



Shunt may be in Hi or Lo side of Load.

DC mV measurement with a Resolution of 10 microVolts.
Easily User Scaled to Display Voltages up to 199.99 mV.



Can be used to measure single-ended or differential inputs. Max CMV (common mode voltage) = 50V*

Compatibility

The UM-Series NEMA case style is complementary to Texmate's Classic RP-Series. For economy, each UM model is dedicated to a specific application. UMs are ideal for upgrading or replacing the traditional USA NEMA case panel meters presently in use.

**Traditional
NEMA
STYLE USA
CASE**

Specifications

- Input Configuration:**Single-ended, however isolated power supply enables differential measurements up to a maximum common mode of 50V.*
A Zero Potentiometer is provided that can offset the displayed reading ± 500 counts.
- Full Scale Ranges:**Three header selectable ranges of ± 50 mV DC, ± 100 mV DC & ± 200 mV DC full scale
- Input Impedance:**50K Ω /100K Ω /65K Ω in 50/100/200mV ranges
- A/D Converter:**16 bit dual slope
- Accuracy:** $\pm (0.05\% \text{ of reading} + 3 \text{ digits})$
- Temp. Coefficient:**100ppm/ $^{\circ}$ C (Typical)
- Warm Up Time:**2 minutes to specified accuracy
- Conversion Rate:**3 readings per second
- Display:**0.56" high efficiency LED
Display Hold and Test Function
- Polarity:**Bipolar. Assumed +, displays -
- Decimal Selection:**Header under face plate, X•X•X•X•
- Overload Indication:**When input exceeds the full scale on any range being used, the meter displays flashing "0000"
- Power Supply (std):**120/240V AC, 50/60 Hz. approx 2.5W.
(Optn) VO-DC/ISOIsolated Switcher. 9 to 36V DC/12 to 24V AC
(Optn) VO-24VIsolated Transformer 24V AC $\pm 10\%$
(Optn) VO-5V DCNon-isolated 5V DC $\pm 10\%$
- Operating Temp.:**-10 to 50 $^{\circ}$ C
- Storage Temperature:**-20 to 70 $^{\circ}$ C.
- Relative Humidity:**95% (non condensing)
- Case Dimensions:**Bezel 4.06"Wx1.89"H (102.7Wx47.9Hmm)
Depth behind bezel 3.64" (92.22 mm) Plus
0.5 to .9" (12.7 to 22.8mm) depending on connector used.
- Weight:**10 oz., 13 oz when packed.