



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

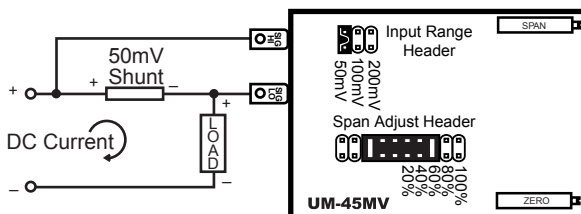
The UM-45MV is an economical, high resolution DC voltage measuring meter with three header selectable full scale ranges of 50mV, 100mV and 200mV. A five position Span Adjust header facilitates scaling in engineering units.

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)

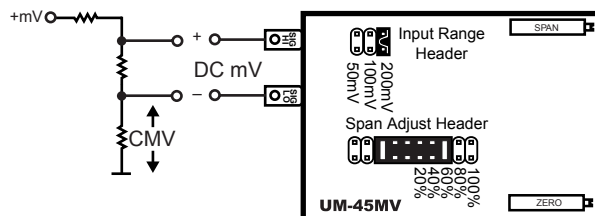
Typical Application Connections

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: $\pm (0.05\%$ of reading + 3 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.

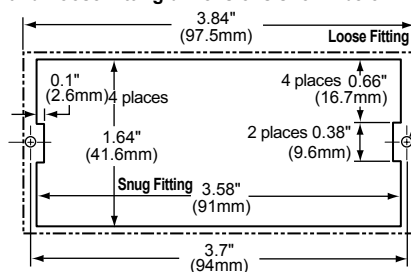
UM-Series low cost utility meters for switchboard and process indication

UM-35AC11/5 AC amps, Scaled RMS, (1 or 5 Amp internal shunt), 3.5 digit
UM-35ACAC volts, Scaled RMS. **199.9V AC/500V AC** Header Selectable Ranges, 3.5 digit
UM-40ACAC volts, Scaled RMS. **500.0V AC** full scale, high resolution 4 digit
UM-35HZ15Hz to **199.9Hz** or optionally 40Hz to 500Hz up to 500V AC input, 3.5 digit
UM-35DC Volts $\pm 2/20$ V DC Header selectable or optionally $\pm 2/200$ V DC, 3.5 digit
UM-35MVDC mV ± 50 mV and ± 100 mV select inputs to suit DC current shunts, 3.5 digit
UM-45DC Volts $\pm 2V/\pm 20V/\pm 200V$ DC Header selectable ranges 4.5 digit
UM-45MVDC mV ± 50 mV, ± 100 mV, or ± 200 mV selectable inputs to suit DC current shunts, 4.5 digit

UM-35CLProcess 4 to 20mA (**100.0**), easily user scalable, 3.5 digit
UM-35CLEProcess 4 to 20mA (**100.0**) with 24V DC excitation, easily user scalable in engineering units anywhere from -1999 to +1999. 3.5 digit
UM-45CLProcess 4 to 20mA (**100.00**), easily user scalable, 4.5 digit
UM-35PPressure, strain gage and load cell, 4 and 6 wire, 5V DC excitation, Header Selectable Sensitivity 2mV/V, 5mV/V, 10mV/V, **20mV/V**, 3.5 digit
UM-35J/KJ or K thermocouple input, 1 $^{\circ}$ resolution, order $^{\circ}$ C or $^{\circ}$ F, 3.5 digit
UM-35RTD100 Ω platinum RTD, 3 or 4 wire, order $^{\circ}$ C or $^{\circ}$ F and **0.1 $^{\circ}$** or **1 $^{\circ}$** , 3.5 digit

UM Case Dimensions and Panel Cutouts

This NEMA Case will fit any existing cutout with dimensions that are between the Snug and Loose Fitting dimensions shown below.

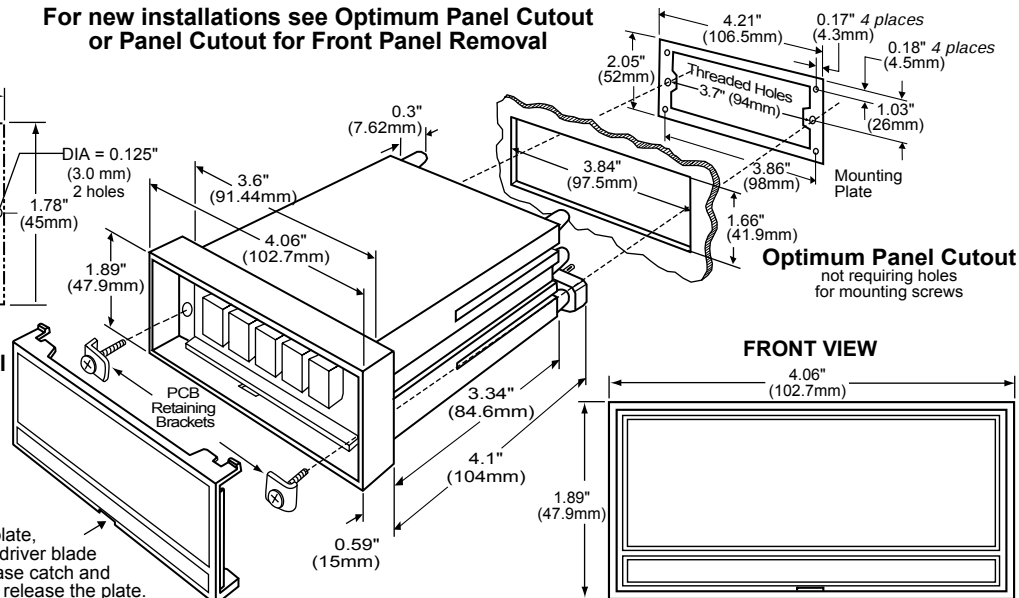


Panel Cutout for Front Panel Removal

To enable removal of the panel meter from a mounting panel without requiring rear access, make the panel cutout as shown above, using the mounting plate supplied with the meter as a template. The mounting holes should then be tapped to match the mounting screws.

To remove the face plate, carefully insert screwdriver blade at bottom slot to release catch and gently pry outward to release the plate.

For new installations see Optimum Panel Cutout or Panel Cutout for Front Panel Removal



Ordering Information

Standard Options for this Model Number

Part Number	Description	List
► BASIC MODEL NUMBER Includes 2 TB-KITs, standard display and standard power supply unless optional versions are ordered.		
UM-45MV	DPM, DCmV, ±50 mV , ±100mV, or ±200mV Header Selectable Ranges	\$135
► DISPLAY		
STANDARD0.56" Red LEDs N/C		
UM-BRIGHT4	Display: 0.56 inch, Super bright Red LEDs	\$25
UM-GREEN4	Display: 0.56 inch, Green LEDs	\$15
► POWER SUPPLY		
STANDARD100/120 or 200/240VAC User selectable N/C		
V0-DC/ISO	Isolated auto-sensing AC/DC 9 to 36V DC/12 to 24V AC	\$35
V0-24V	Isolated transformer 12V AC or 24V AC user selectable	\$15
V0-5V DC	Non-isolated 5V DC only	\$10
► SPECIAL OPTIONS (Specify Inputs or Outputs & Req. Reading)		
HD-CHANGE	Range change from the standard input as shown in BOLD type..	\$7
CB-FS45	Non-Std Range and Scale changes for UM-45s.....	\$20

Special Options and Accessories

Part Number	Description	List
► ACCESSORIES (Specify Serial # for Custom Artwork Installation)		
75-RPCLEAR	Replacement Clear Lens for meter	\$2
75-RPFILTER	Replacement Red Lens for meter	\$2
CN-L15	Connector: Dual Row, 30 Pin Edge Conn., 0.156" ctr	\$4
CN-PUSH/UM	Connector: Push-on Terminal Block, 120V AC Pwr	\$18
CN-PUSH/UM01	Connector: Push-on Terminal Block, 200-240V AC Pwr	\$18
CN-PUSH/UM02	Connector: Push-on Terminal Block, 120/240V AC select	\$20
CN-PUSH/UM03	Connector: Push-on Terminal Block, 24V AC pwr	\$18
CN-PUSH/UM04	Connector: Push-on Terminal Block, 9 to 36V DC/12 to 24 V AC	\$18
CN-PUSH/UM05	Connector: Push-on Terminal Block, 5V DC	\$18
CN-UM/ANLGC	Connector: Pinout Changer to match Analogic AN20M02 etc ..	\$30
OP-N4SEAL/UM	NEMA 4 lens cover for UM Series meters	\$50
RP•CASE	Case: Replacement with Mounting Hardware	\$10
TB-KIT	Connector: extra Screw Terminal Blocks (3 sets=1 kit)	\$1
ART-FS-S/D	NRC for Artwork & set-up Custom Faceplate and or Descriptor ..	\$35
ART-FS-S/D/C	NRC for Artwork & set-up Custom Faceplate and Custom Logo ..	\$75
ART-FS-001	Produce & Install Custom Faceplate per meter - 1 color no-min ..	\$10
ART-FS-002	Produce & Install Custom Faceplate per meter - 2 color no-min ..	\$20
ART-FS-003	Produce & Install Custom Faceplate per meter - 3 color no-min ..	\$30
ART-FUM-001	Custom Faceplate, 100 piece Min. (\$3.00 each) - 1 color	\$300
ART-FUM-002	Custom Faceplate, 100 piece Min. (\$4.20 each) - 2 color	\$420
ART-FUM-003	Custom Faceplate, 100 piece Min. (\$5.40 each) - 3 color	\$540

Many other options and accessories are available. See full price list for more details.
Prices subject to change without notice.

WARRANTY

Texmate warrants that its products are free from defects in material and workmanship under normal use and service for a period of one year from date of shipment. Texmate's obligations under this warranty are limited to replacement or repair, at its option, at its factory, of any of the products which shall, within the applicable period after shipment, be returned to Texmate's facility, transportation charges pre-paid, and which are, after examination, disclosed to the satisfaction of Texmate to be thus defective. The warranty shall not apply to any equipment which shall have been repaired or altered, except by Texmate, or which shall have been subjected to misuse, negligence, or accident. In no case shall Texmate's liability exceed the original purchase price. The aforementioned provisions do not extend the original warranty period of any product which has been either repaired or replaced by Texmate.

USER'S RESPONSIBILITY

We are pleased to offer suggestions on the use of our various products either by way of printed matter or through direct contact with our sales/application engineering staff. However, since we have no control over the use of our products once they are shipped, NO WARRANTY WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE, OR OTHERWISE is made beyond the repair, replacement, or refund of purchase price at the sole discretion of Texmate. Users shall determine the suitability of the product for the intended application before using, and the users assume all risk and liability whatsoever in connection therewith, regardless of any of our suggestions or statements as to application or construction. In no event shall Texmate's liability, in law or otherwise, be in excess of the purchase price of the product.

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