

UM-40AC

700.0V AC Meter

4 DIGIT with 0.56" or 0.8" LEDs
in a Traditional NEMA Style Case



0.56" LEDs



0.8" LEDs



A utility meter for high resolution AC volts measurement with safe resistively isolated differential inputs.

General Features

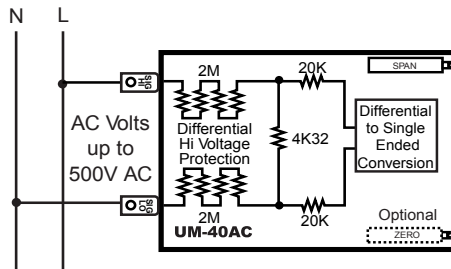
The UM-40AC is a low-cost, utility, AC voltage measuring meter with range of 0 to 700.0V AC. The unique resistively isolated differential input of this meter allows safe measurement of phase to phase voltages, making it an effective solution to most high resolution AC voltage measuring applications.

The standard meter is provided with TB-KIT screw terminal blocks and insulated quick-disconnects. For the greatest convenience and ease of use, order the optional pre-configured Push-On screw terminal connectors. (see Push-On Screw Terminals and Ordering Information)

Typical Application Connections

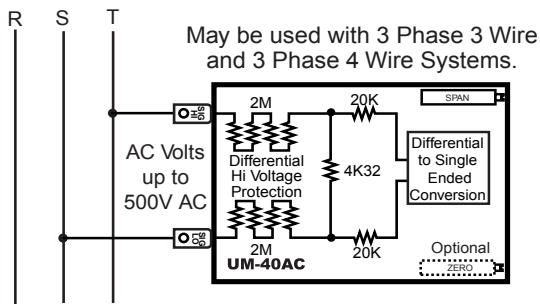
AC Voltage measurement in Single-phase Systems.

Maximum display of 500.0V AC.



AC Phase to Phase Voltage measurement in Multi-phase Systems.

Maximum display of 500.0V AC.



The unique differential input allows safe phase to phase AC line voltage measurements up to 500V AC.

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

- UM-35AC1/5 AC amps, Scaled RMS, (1 or 5 Amp internal shunt), 3.5 digit
- UM-35ACAC volts, Scaled RMS. 199.9V AC/700V AC Header Selectable Ranges, 3.5 digit
- UM-40ACAC volts, Scaled RMS. 700.0V 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 $\pm 2/20V$ DC Header selectable or optionally $\pm 2/200V$ DC, 3.5 digit
- UM-35MVDC mV $\pm 50mV$ and $\pm 100mV$ 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 $\pm 50 mV$, $\pm 100mV$, or $\pm 200mV$ selectable inputs to suit DC current shunts, 4.5 digit

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:Differential input. Inputs resistively isolated to 1400V from internal ground of meter by 1.94MΩ, so that phase to phase measurements up to 700V AC can be safely made.
Provision for optional zero pot to offset the reading displayed. (See Ordering Information)

Full Scale Ranges:700V AC full scale

Input Impedance:4MΩ minimum.

A/D Converter:16 Bit Dual Slope

Accuracy: $\pm(0.05\%$ of reading + 3 counts)

Temperature Coefficient: 100 ppm/°C (Typical)

Warm Up Time:2 minutes to specified accuracy

Conversion Rate:3 conversions per second (Typical)

Display:4 digit 0.56" Red LED display (std), (optn) Green or Super Bright Red.
Range 0 to 9999 counts.

Decimal Selection:Header under face plate, X•X•X•X•

Overrange Indication:Display flashes "0000"

Power Supply (std):120/240V AC, 50/60/400Hz. approx 1.5W.

(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 Temperature:-10 to 50 °C

Storage Temperature:-20 to 70 °C.

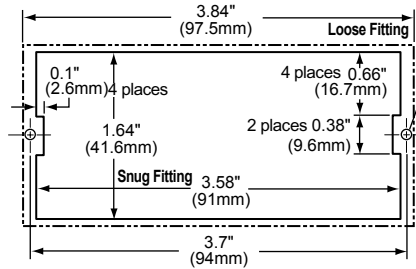
Relative Humidity:95% (non-condensing)

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:10oz., 13oz. when packed.

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.

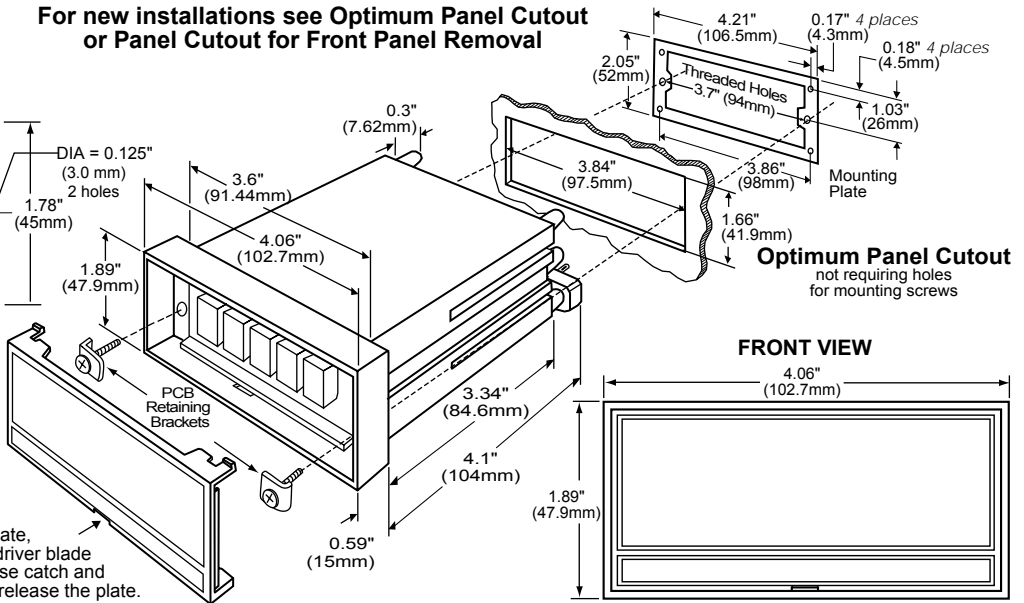


Panel Cutout for Front Panel Removal

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-40AC.....DPM, AC Volts, **700.0V AC**.....

► **DISPLAY**
STANDARD**0.56" Red LEDs**
 UM-BRIGHT4.....Display: .56 inch, Super bright Red LEDs
 UM-GREEN4.....Display: .56 inch, Green LEDs

► **POWER SUPPLY**
STANDARD**100/120 or 200/240VAC User selectable**
 V0-DC/ISO.....Isolated auto-sensing AC/DC 9 to 36V DC/12 to 24V AC.....
 V0-24V.....Isolated transformer 12V AC or 24V AC user selectable
 V0-5V DC.....Non-isolated 5V DC only

► **SPECIAL OPTIONS (Specify Inputs or Outputs & Req. Reading)**
 HD-CHANGE.....Range change from the standard input as shown in **BOLD** type.
 V0-50K.....Zero offset Potentiometer 50K

Special Options and Accessories

Part Number Description List

► **ACCESSORIES (Specify Serial # for Custom Artwork Installation)**
 75-RPCLEAR . . . Replacement Clear Lens for meter
 75-RPFILTER . . . Replacement Red Lens for meter

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

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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