

TEXMATE

UM-35MV

50mV DC Full Scale Meter
3 1/2 DIGIT with 0.56" or 0.8" LEDs
in a Traditional NEMA Style Case



Measuring DC signals as low as 50mV full scale, this meter is ideal for high DC current measurement using low voltage drop current shunts, or for other precision low DC mV measurements.

General Features

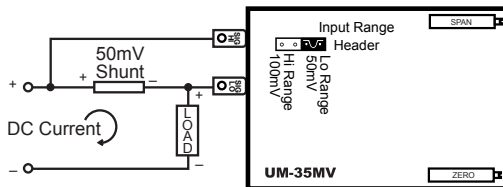
The UM-35MV is an economical, low DC voltage measuring meter with two header selectable full scale ranges of 50mV and 100mV which facilitate scaling in engineering units. The meter is particularly suited for measuring DC current using 50mV standard current shunts.

An economical option is the dummy (non-functional) right-hand-side zero which allows the UM-35MV to display readings from -19990 to +19990 without going to the expense of a 4.5 digit meter. The apparent resolution with the dummy zero option would be 10 counts.

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 preconfigured Push-On screw terminal connectors. (see Push-On Screw Terminals and Ordering Information)

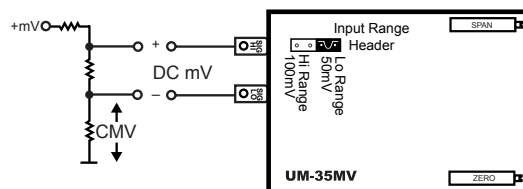
Typical Application Connections

DC Current measurement using 50mV Shunt.
Easily User Scaled to Display Currents up to 1999 Amps.



Shunt may be in Hi or Lo side of Load.

DC mV measurement with a Resolution of 100 microVolts.
Easily User Scaled to Display Voltages up to 199.9 mV.



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

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:Two header selectable ranges of ± 50 mV DC and ± 100 mV DC

Input Impedance:50K Ω /100K Ω in 50mV/100mV ranges

A/D Converter:12 Bit Dual Slope

Accuracy: $\pm (0.05\%$ of reading + 2 counts)

Temperature Coefficient: 100 ppm/ $^{\circ}$ C (Typical)

Warm Up Time:2 minutes to specified accuracy

Conversion Rate:3 conversions per second (Typical)

Display:3 1/2 digit 0.56" Red LED display (std), (optn) Green or Super Bright Red, 0.8" Red or Green. Range 0 to 1999 counts.

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

Over-range Indication:1 (MSD) displayed all other digits blank

Power Supply (std):120/240V AC, 50/60/400 Hz. 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 $^{\circ}$ 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:10oz., 13oz. when packed.

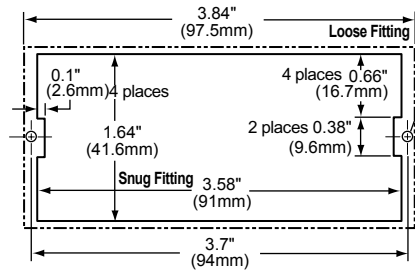
UM-Series low cost utility meters for switchboard and process indication

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 ± 2 /20V DC Header selectable or optionally ± 2 /200V 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 ± 2 V/ ± 20 V/ ± 200 V 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 (**100.0**), 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.

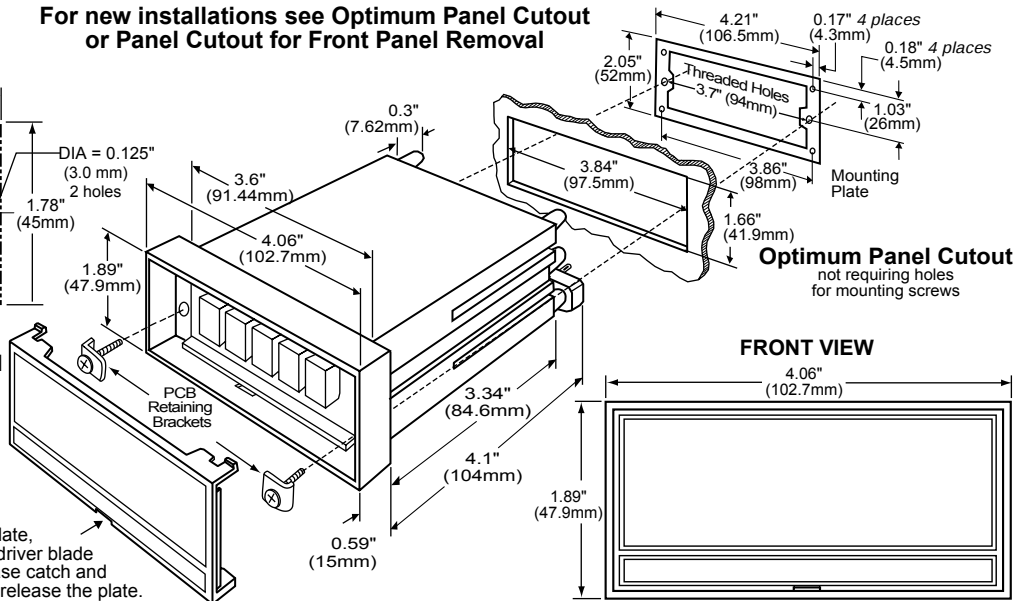


Panel Cutout for Front Panel Removal

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-35MV	DPM, DCmV, 50mV or 100mV selectable input ranges	\$75
► DISPLAY		
STANDARD0.56" Red LEDsN/C		
UM-BRIGHT	Super bright Red LEDs, 0.56 inch high	\$20
UM-GREEN	Green LEDs, 0.56 inch high	\$10
UM-GREEN4.5	Green LEDs, 0.56 inch high Dummy Zero Option for UM-35s ..	\$25
UM-LARGE/GRN	Green LEDs, 0.8 inch high for UM-35 Series	\$35
UM-LARGE/RED	Red LEDs, 0.8 inch high for UM-35 Series	\$25
UM-RED4.5	Red LEDs, 0.56 inch high Dummy Zero Option for UM-35s ..	\$25
► POWER SUPPLY		
STANDARD100/120 or 200/240V AC User selectableN/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-FS35	Non-Std Range and Scale changes for UM-35 meters	\$10

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 24V 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.

Texmate cannot assume responsibility for any circuitry described. No circuit patent or software licenses are implied. Texmate reserves the right to change circuitry, operating software, specifications, and prices without notice at any time.