

TEXMATE

UM-35

**2V DC to 200V DC Meter
3 1/2 DIGIT with 0.56" or 0.8" LEDs
in a Traditional NEMA Style Case**

**A low cost Utility Meter for General Purpose
Single or Differential DC Voltage Measurement.**



General Features

The UM-35 is a low-cost, utility, DC voltage measuring meter with two built-in ranges of 2V and 20V or optionally 2V and 200V. This meter is a very cost-effective solution to most DC voltage measuring applications since it may be used to measure single-ended as well as differential signals and is easily scaled to any desired process engineering unit.

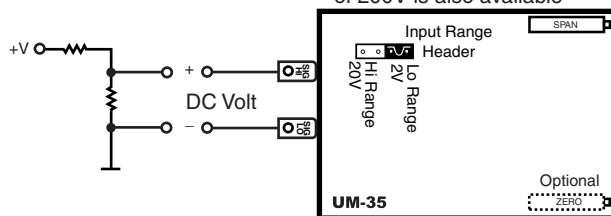
An economical option is the dummy (non-functional) right hand-side zero which allows the meter to display readings from -19990 to +19990 without going to the expense of a 4.5 digit meter. The apparent resolution with the dummy zero option would be 10 counts.

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

Typical Application Connections

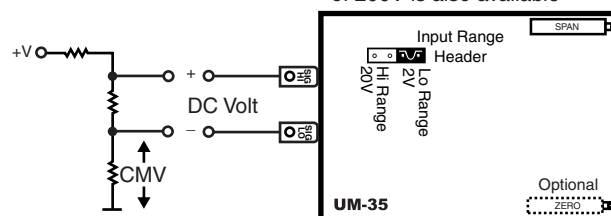
DC Volts Single-ended measurement with a Resolution of 100 millivolt.

Factory installed Hi Range of 200V is also available



DC Volts Differential measurement with a Resolution of 100 millivolt.

Factory installed Hi Range of 200V is also available



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 the isolated power Provision for optional zero pot to offset the reading displayed. (See Ordering Information) supply enables differential measurements up to a maximum common mode of 50V.*

Full Scale Ranges:Two header selectable ranges of $\pm 2V$ DC and $\pm 20V$ DC or optionally ($\pm 2V/\pm 200V$)

Input Impedance:1M Ω minimum

A/D Converter:12 Bit Dual Slope

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

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

Overrange Indication:1 (MSD) displayed with all other digits blank

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 $^{\circ}C$

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.

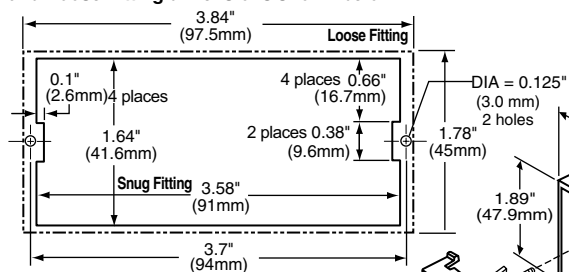
UM-Series low cost utility meters for switchboard and process indication

UM-35AC1/5 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 $\pm 2V/\pm 20V$ 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 $\pm 50mV$, $\pm 100mV$, or $\pm 200mV$ 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.

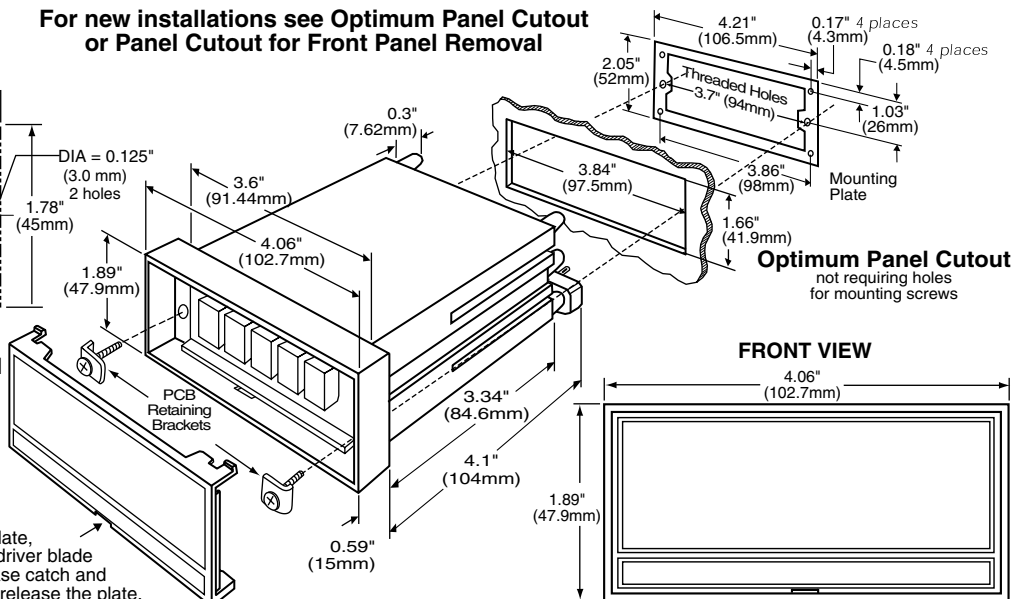


Panel Cutout for Front Panel Removal

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
► BASIC MODEL NUMBER Includes 2 TB-KITs, standard display and standard power supply unless optional versions are ordered.	
UM-35	DPM, $\pm 2/20V$ DC Header selectable or optionally $\pm 2/200V$ DC
► DISPLAY	
STANDARD0.56" Red LEDs	
UM-BRIGHT	Super bright Red LEDs, 0.56 inch high
UM-GREEN	Green LEDs, 0.56 inch high
UM-GREEN4.5	Green LEDs, 0.56 inch high Dummy Zero Option for UM-35s
UM-LARGE/GRN	Green LEDs, 0.8 inch high for UM-35 Series
UM-LARGE/RED	Red LEDs, 0.8 inch high for UM-35 Series
UM-RED4.5	Red LEDs, 0.56 inch high Dummy Zero Option for UM-35s
► POWER SUPPLY	
STANDARD100/120 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
CB-FS35	Non-Std Range and Scale changes for UM-35 meters
VRC-DPM	Input Range Header Change to 2V/200V from (2V/20V)

WARRANTY

Textmate 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. Textmate'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 Textmate's facility, transportation charges pre-paid, and which are, after examination, disclosed to the satisfaction of Textmate to be thus defective. The warranty shall not apply to any equipment which shall have been repaired or altered, except by Textmate, or which shall have been subjected to misuse, negligence, or accident. In no case shall Textmate'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 Textmate.

Special Options and Accessories

Part Number	Description
► 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 36V DC/12 to 24V 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
<i>Many other options and accessories are available.</i>	

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 Textmate. 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 Textmate's liability, in law or otherwise, be in excess of the purchase price of the product.

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