



TEXMATE

PM-35A

**5 Optional DC Input Ranges
from 200mV to 1200V
3 1/2 DIGIT with 0.56" LEDs
in a Slim Bezel Case**

A Precision Low Cost General Purpose Differential Input Meter.

General Features

The PM-35A is a popular, general purpose 5VDC powered instrument. More than 60,000 units have been installed throughout the world in thousands of different applications, attesting to the meter's utility and reliability. A single CMOS/LSI dual slope autozeroing analog to digital converter is used and the unit measures true differential for single-ended DC voltages over five user programmable ranges from $\pm 199.9\text{mV}$ to $\pm 1200\text{V}$ full scale. Provision has been made for many user selectable operating modes, including a current meter, ratiometric ohm-meter, and a temperature meter.

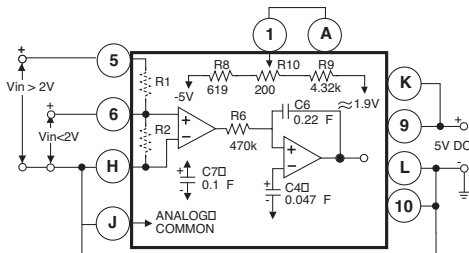
An on board DC to DC converter provides up to 10mA of auxiliary power for external user circuitry.

The differential input capability of the PM-35A is particularly useful for making accurate measurements of very small signals in the presence of much larger common mode signals. The PM-35A is ideal for measuring various balanced transducers and bridge inputs and long term drift of the excitation voltage can be compensated for by using the external reference differential ratiometric mode of operation.

Typical Application Connections

SINGLE ENDED METER: 200MV Range, <2V Range For 200mV Range: 1) Omit R1 and R2; 2) Change R6 from 470k Ω to 47k Ω ; 3) Change R8 from 619 Ω to 121 Ω ; 4) Change R9 from 4.32k Ω to 12.1k Ω ; 5) Change C4 from 0.47 μF to 0.33 μF ; 6) Change C7 from 0.1 μF to 2.2 μF .

For <2V Range: 1) Install R1 and R2 as specified under section titled Useful Tables.



View more application connections and connection instructions on page 3.

Compatibility

The PM-35A is shipped in a standard Slim Bezel case. The Slim Bezel case is compatible with the CM, SM, TM, & SP Series of meters. The PM-35U can be ordered in End Mount cases for twin mounting or combinations of multiple center mount cases and two end mount cases for stack mounting.

SLIM



BEZEL

Specifications

Input Configuration:.....True differential and single-ended
Full Scale Ranges:..... $\pm 199.9\text{mVDC}$
 $\pm 1.999\text{VDC}$ (standard)
 $\pm 19.99\text{VDC}$
 $\pm 199.9\text{VDC}$
 $\pm 1200\text{VDC}$
Input Impedance:.....Exceeds 1000M Ω on 200mV and 2V ranges; 10M Ω on all other ranges
Input Protection:..... $\pm 500\text{VDC}$ or 350VAC maximum on 200mV and 2V ranges; $\pm 1200\text{VDC}$ or 850VAC on all other ranges
Accuracy:..... $\pm (0.05\%$ of reading + 1 digit)
Temperature Coefficient:.....5PPM/ $^{\circ}\text{C}$ in ratiometric operation; 50 PPM/ $^{\circ}\text{C}$ Typ. using internal reference on 200mV and 2V ranges
Warm Up Time:.....10 seconds to specified accuracy
Conversion Rate:.....3 readings per second nominal
Display:.....0.56" LED
Decimal Selection:.....User programmable to 4 positions
Overrange Indication:...When input exceeds full scale on any range being used, most significant "1" digit with all other digits blank
Power Requirements:...+4.5 to +5.5VDC at 200mA
Operating Temperature:...0 $^{\circ}$ to +60 $^{\circ}\text{C}$
Storage Temperature:...-20 $^{\circ}$ to +70 $^{\circ}\text{C}$
Relative Humidity.....95% (non-condensing)
Case Dimensions:.....Bezel 2.76" x 1.17" (69.75 x 29.7mm)
 Depth behind Bezel 3.32" (84mm) plus 0.68" (17.27mm) for connector.
Weight:.....88 gms (3.1 oz)

PM-Series, high performance versatility for a wide range of applications

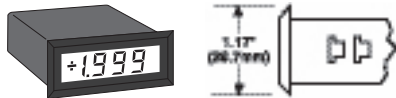
PM-35A.....3.5 digit Red LED, Precision Preference, 2VDC, 5VDC Power
PM-35U.....3.5 digit Red LED, Low Cost, 2VDC, 5VDC Power
PM-45L.....4.5 digit Red LED, Precision Meter w/Differential Input

PM-45LU.....4.5 digit Red LED, Low Cost Meter w/Differential Input
PM-45X.....4.5 digit LCD, Precision Meter w/Differential Input
PM-45XU.....3.5 digit LCD, Low Cost Meter w/Differential Input

PM Case Dimensions and Panel Cutouts

The Slim Bezel Case is supplied as standard. If specified at time of ordering, any combination of Twin Mounting and Multiple Array Cases may be substituted at no additional cost. Extra cases may be ordered separately.

STANDARD SLIM BEZEL CASE

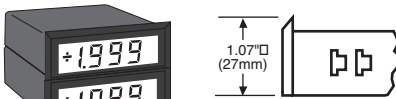


SLIM BEZEL CASE

Standard Black ABS case with matte finish bezel for single unit mounting.

Part No. **SL-CASERED** for LED's
SL-CASECLR for LCD's

OPTIONAL TWIN MOUNTING OR MULTIPLE ARRAY CASES



END MOUNT CASE

Same styling as Slim Bezel case but with bottom edge of bezel removed. Two End Mount cases can be twin mounted in a single cutout.

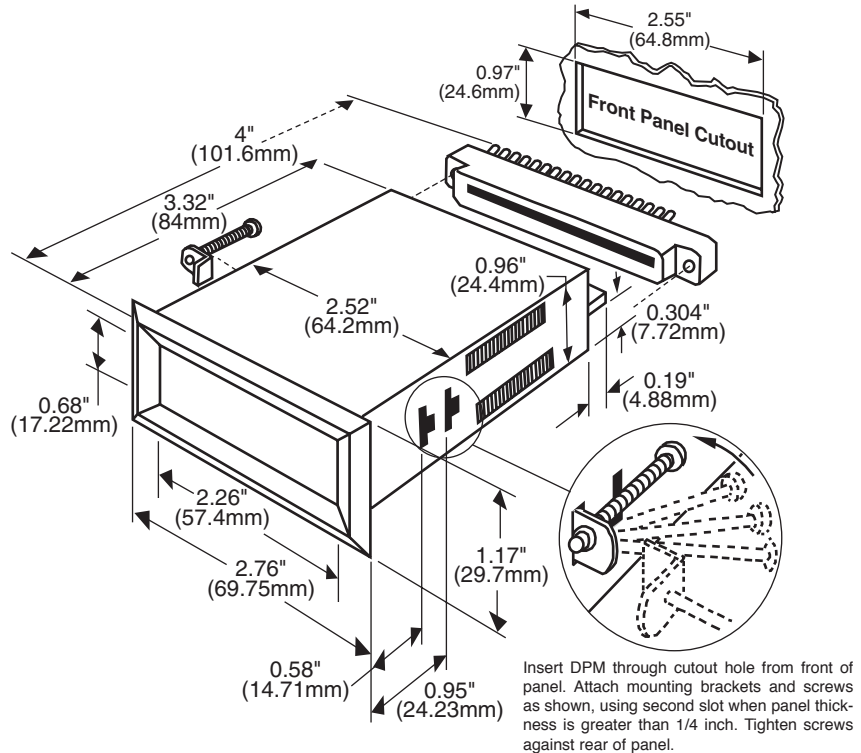
Part No. **EM-CASERED** for LED's
EM-CASECLR for LCD's



CENTER MOUNT CASE

Any number of Center Mount cases may be fitted between two End Mount cases for multiple arrays.

Part No. **CM-CASERED** for LED's
CM-CASECLR for LCD's



Ordering Information

Standard Options for this Model Number

Part Number Description List

► BASIC MODEL NUMBER

PM-35A 3.5 digit Red LED, Precision Preference, 2VDC, 5VDC pwr

Special Options and Accessories

Part Number Description List

► SPECIAL OPTIONS (Specify Inputs & Req. Reading)

VA-200MVFI . . .200mVDC Range Change

VF-0020V20VDC Range Change

VF-0200V200VDC Range Change for 3.5 digit PM Series . .

VF-1200V1200VDC Range Change for 3.5 digit PM Series .

VS-3.5 Non-Std Range and Scale - 3.5 Digit PM Meters .

► ACCESSORIES



CN-L10 Dual Row 10 Pin Connector, Solder Type

SL.CASERED. Slim Bezel Case, Red Faceplate w/Mtg Hardware . .

CL.CASERED. Center Mount Case, Red Faceplate w/Mtg Hardware

EM.CASERED End Mount Case, Red Faceplate w/Mtg Hardware . .

Prices subject to change without notice.

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.

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