



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.

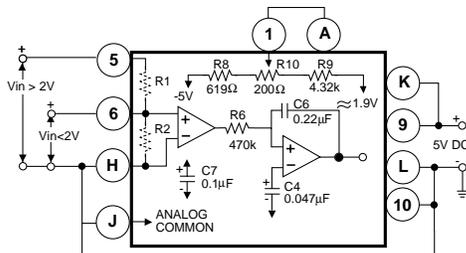
An on board DC to DC converter provides up to 10mA of auxiliary power for external user circuitry.

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.

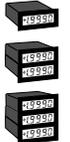


View more application connections and connection instructions on page 3.

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 100M 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 & polarity symbol are displayed with all other digits blank
Power Requirements: +4.5 to +5.5VDC at 200mA
Operating Temperature: 0° to $+60^{\circ}\text{C}$
Storage Temperature: -20° 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)