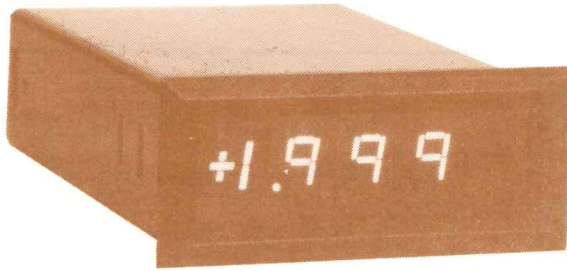


TEXMATE INC



PM-3.5 3 1/2 DIGIT PANEL METER

5VDC POWERED FAST UPDATE CAPABILITY METER WITH MUX BCD AVAILABLE

DESCRIPTION

The PM-3.5 is a single-ended high performance Digital Panel Meter with a fast update capability of up to 40 readings per second. The multiplexed display drive circuitry is user programmable to drive the 0.3" LED displays at maximum possible brightness. The instrument utilizes an autozeroing dual slope analog to digital converter and measures single-ended inputs over four user programmable ranges from ± 1999 VDC to ± 1200 VDC full scale. Maximum resolution is 1mV over ± 1999 counts.

A multiplexed BCD output is available and as an option the meter may be ordered with a length of multiconductor ribbon cable that is attached to the appropriate solder pads on the PC board and out through the rear of the case. Since the output drive is only one TTL load, care should be taken in the cable length selected.

Provision has been made for user selection of many operating modes, including ratiometric measurements. Leading zero blanking is also available; however, its use prevents the display of the MSD digit ("1"999) unless external circuitry is used (see application notes). Other useful features include the ability to reverse the displayed polarity from that of the input signal. Overrange and underrange outputs are also available to facilitate autoranging applications. The power to the A to D converter and logic circuits is independent to that of the display, which enables the display to be dimmed or blanked and operated in a "press-to-read" mode without affecting the function of the meter. The reading is capable of instantaneous display without any settling time.

SPECIFICATIONS

Input Configuration:	Single-ended
Full Scale Ranges:	± 1.999 VDC (standard) ± 19.99 VDC ± 199.9 VDC ± 1200 VDC
Input Impedance:	Exceeds 1000Ω on 2V range; 10Ω on all other ranges
Input Protection:	± 500 VDC or 350VAC maximum on 2V ranges; ± 1200 VDC or 850VAC on all other ranges
Normal Mode Rejection:	30dB at 50Hz and up
Accuracy:	$\pm(0.05\%$ of reading + 2 digits)
Maximum Resolution:	1mV over ± 1999 counts
Temperature Coefficient:	5PPM/°C in ratiometric operation; 50PPM/°C using internal reference on 2V range
Zero Stability:	Autozeroed; $1\mu\text{V}/^\circ\text{C}$ Typ.
Conversion Rate:	3 readings per second nominal, controllable from 1 to 40 per second
Display:	0.3" LED
Polarity:	Automatic; displays both "+" and "-" signs; polarity symbols may be blanked, or reversed
Decimal:	User programmable to 4 positions
Overload Indication:	When input exceeds full scale on any range being used, all digits flash zeros at the A to D conversion rate
Power Requirements:	+4.5 to +5.5VDC at 200mA to 300mA, depending on display brightness
Warmup Time:	10 seconds to specified accuracy
Operating Temperature:	0°C to +60°C

ORDERING INFORMATION

STANDARD 3 1/2 DIGIT PANEL METER (2V Range)
ACCESSORIES: Edge Connector (20 pin solder tabs)

OPTIONS:

Factory Installed 20V Range
Factory Installed 200V Range
Factory Installed 1200V Range
Factory Installed Special Scaling (Specify input signal, the span, and digital reading required e.g. 0 to 5V input to display 0 to 1999; e.g. 0 to 2V input to display 0 to 1800).

Order Part No.

PM-3.5
CN-L10

VF-0020V
VF-0200V
VF-1200V

VS-3.5

RANGE CHANGE KITS: (matched resistors for user installation)

20V Range
200V Range
1200V Range

Order Part No.

VK-0020V
VK-0200V
VK-1200V

EVALUATORS KIT: (selected components to evaluate most circuit applications)

OPTIONAL CASES:

End Mount Case (see back panel for details)
Center Mount Case (see back page for details)
Full Bezel Case (see back page for details)
Slim Line Case (supplied as standard)

PM-3.5 KIT

EM-CASE
CM-CASE
FB-CASE
SL-CASE