

**Micron Meter's MM50** Programmable Smart Panel Meter is like getting up to 6 meters at the price of one. Display DC Voltage, current, strain or process signals. Choose from 6 thermocouples, 2 RTD types, AC (true RMS) voltage and current or low level load cells. The application is up to you. Front panel programming provides push button selectability. Input signals may be displayed as voltage or current, or scaled five full digits from 0 to 99,999 to read directly in engineering units such as ft./lbs, rpm, psi, etc. No calibration equipment is required when changing ranges; all ranges are digitally pre-calibrated at the factory. Temperature scales (Celsius or Fahrenheit) are selectable from the front panel.



ALL MM50 Meters are Certified to UL 3101-1, EN61010-1 (CE Mark).

The MM50 has fast control response ( 60 readings/sec), true peak reading capability, and an analog output that accurately tracks the signal input. It has an adaptive digital filter that automatically selects the best time constant for minimum noise, and yet responds rapidly to an actual change in signal level.

Isolated 5,10, or 24 Vdc outputs are available to power strain gages and transmitters, eliminating the need for an external power supply. The set-points for the two alarm indicators are also front panel programmable, and optional transistors or dual 8 Amp relays can be added to provide control outputs. These outputs can be set to operate above or below the set-point, in a latched or non-latching mode.

Analog outputs are available to drive chart recorders, remote displays or to transmit to a central control room.

You can even add an RS232 or RS485 interface and communicate directly with PLC's or computers. Baud rates can be set from 300 to 19,200. We supply the software to make meter setup fast and easy. We also offer a Palm Pilot kit for entering setup data in the field. Three state, parallel BCD outputs are also available.

**Standard Features**

- Plug in Option Boards
- Five Full Digits Bidirectional
- 50-60 Readings Per Second
- True Peak Hold, Auto Tare, Automatic Adaptive Digital Filter
- Isolated 5,10, or 24 VDC Excitation
- Worldwide AC/DC Power
- NEMA 4 Lens Cover
- 0.56" High Digits
- User Selectable Scaling, Front Panel Programming

**Optional Features**

- Dual 8 AMP Relay Alarm Board
- Open Collector Outputs
- Isolated RS232 or RS485 or Parallel BCD Computer Interface
- Analog Outputs 0-20 mA, 4-20 mA, or 0 to 10 Volts DC

**Selectable Signal Conditioning** (Choice of One)

- DC Volts (200 mV to 660 V) Current (2 mA-5 A)
- True RMS Volts (200 mV to 660 V) Current (2 mA-5 A)
- Temperature J, K, T, E, R, S Thermocouple
- Temperature 100 OHM RTD with 2,3,4 Wire Connection.
- DIN 0.00385 or ANSI 0.003925 ALPHA's
- 4 and 6 Wire Bridge Circuit Connections

<b>DISPLAY</b>	
<b>Model: MM50</b>	5 LED, 7-segment, 14.2mm
<b>Color</b>	Red or Green
<b>Range</b>	-99999 to +99999 and -99990 to +99990
<b>A to D CONVERSION</b>	
<b>Technique (Pat. 5,262,780)</b>	Concurrent Slope TM
<b>Rate</b>	60/s at 60 Hz operation 50/s at 50 Hz operation
<b>Output Update Rate</b>	56/s at 60 Hz 47/s at 50 Hz
<b>Display Update Rate</b>	3.5/s at 60 Hz 3/s at 50 Hz

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MM50 Panel Meter

ACCURACY at 25°C	
DC Volts, Amps, Ratio	0.01% FS ±1Ct.
Thermocouple	0.3°C max.
RTD	0.06°C max.
True RMS (1 to 100%)	0.1% FS, 10 Hz to 10 kHz
Load Cell Meter	0.01% FS ±1 Ct.
Span Tempco	0.003% of reading/°C
Load Cell Meter	0.0015% of reading/°C
Zero Tempco	0.1 Cts./°C
Reference Junction	0.03 degree/degree
NOISE REJECTION	
CMV from DC to 60 Hz	Safety-rated to 250 Vac 4.2 kVp per High Voltage Test
CMR from DC to 60 Hz	130 dB
NMR to 50/60 Hz Line	90 dB with minimum filtering
ENVIRONMENTAL	
Operating Temperature	0°C to 55°C
Storage Temperature	-40°C to 85°C
Relative Humidity	95% at 40°C, noncondensing
OPERATING POWER	
Voltage (std.)	85 to 264 Vac, 90 to 370 Vdc
Voltage (opt.)	8 to 28 Vac, 9 to 37 Vdc
Frequency	DC and 47 to 440 Hz
EXCITATION POWER SUPPLIES	
Outputs	5 Vdc, 5%, 100 mA max. 10 Vdc, 5%, 120 mA max. 24 Vdc 5%, 50 mA max.
Isolation (power gnd.)	Safety-rated to 250 Vac 4.2 kVp per High Voltage Test



The MM50 and MW50 use UL/VDE approved screw terminal connections that plug into the mating printed circuit board jack.

