

# MICRO-P DISPLAY



## Micro-P Displays—Total Compatibility With UniMeasure Analog Transducers!

The Micro-P digital panel meters are the perfect complement to UniMeasure analog series linear position transducers. With simple front panel setup, the Micro-P can be programmed to directly display the output voltage or current from the transducer or, with the input of suitable scale factors, can be programmed to display the output in engineering units such as inches, millimeters or rate values. The Micro-P makes 60 readings per second (50 per second for 50 Hz operation) for fast control response, true peak reading capability, and an analog output that accurately tracks the signal input. The Micro-P has an adaptive digital filter that can automatically select the best time constant for minimum noise, yet responds rapidly to an actual change in signal level. The peak value input signal can be displayed by the push of a button. Auto tare allows the meter display to be set to zero for any input signal level. The Micro-P provides an isolated 5 VDC, 10 VDC, or 24 VDC output to power the transducer, eliminating the need for an external power supply. There are two alarm indicators with the setpoints programmed by front panel push-buttons. Open collector transistors or dual 10 amp relays may be added to provide control outputs. The outputs can be set to operate above or below the setpoint in a latched or non-latching mode. Time delays of the outputs are digitally selectable. 0 to 10 V or 0 to 20mA (4–20 mA) analog outputs are available to drive chart recorders, remote displays or for transmission to a central control room. Outputs are scaled through front panel push buttons. Adding RS-232 or RS-485 enables the meter to communicate with PLC's or computers. Baud rates can be set from 300 to 19,200. Software provided with these options makes meter setup even easier. Three state, parallel BCD outputs are also available.

## SPECIFICATIONS

### DISPLAY

Type ..... 5 Digit, 7-segment, 14.2 mm (.56") high digits and 3 LED indicators  
 Color ..... Red  
 Range ..... -99,999 to +99,999

### A TO D CONVERSION

Technique..... Concurrent Slope  
 Rate ..... 60/s at 60Hz operation  
               50/s at 50Hz operation  
 Output Update Rate ..... 56/s at 60Hz  
                                   47/s at 50Hz  
 Display Update Rate ..... 3.5/s at 60Hz  
                                   3.0/s at 50Hz

### ACCURACY AT 25°C

DC Volts, Amps, Ratio ..... 0.01% FS ±1 Count  
 Span Tempco ..... 0.003% of Reading/°C  
 Zero Tempco ..... 0.1 Counts/°C

### NOISE REJECTION

CMV from DC to 60Hz ..... Safety-rated to 250 VAC  
 CMR from DC to 60Hz ..... 130 dB  
 NMR to 50/60Hz Line..... 90 dB with minimum filtering

### ENVIRONMENTAL

Operating Temperature ..... 0°C to +55°C  
 Storage Temperature..... -40°C to +85°C  
 Operating Humidity ..... 95% at 40°C, non-condensing

### EXCITATION POWER SUPPLIES

Outputs ..... 5 VDC, 5%, 100 mA max.  
                                   10 VDC, 5%, 120 mA max.  
                                   24 VDC, 5%, 50 mA max.

Isolation (power ground) ... Safety-rated to 250 VAC

### OPERATING POWER

Voltage (standard) ..... 85 to 264 VAC, 90 to 370 VDC  
 Voltage (optional) ..... 8 to 28 VAC, 9 to 37 VDC  
 Frequency ..... DC and 47 to 440Hz

## MODEL NUMBER CONFIGURATION



### BASIC CONFIGURATION

**MRO-HHH-MVI3**

<b>0</b>	<b>DISPLAY</b>
MR .....	Red LED
<b>1</b>	<b>METER POWER</b>
0 .....	85 to 264 VAC, 90 to 370 VDC
1 .....	8 to 28 VAC, 9 to 37 VDC

<b>2</b>	<b>ANALOG OUTPUT</b>
H .....	None
J .....	0 to 10 VDC
K .....	0 to 20 (4-20) mA DC

<b>3</b>	<b>SETPOINT OUTPUT</b>
H .....	None
R .....	Dual 8 A Relay
C .....	Form A 130mA Solid State Relay

<b>4</b>	<b>DIGITAL INTERFACE</b>
H .....	None
2 .....	RS-232
4 .....	RS-485
B .....	Parallel BCD

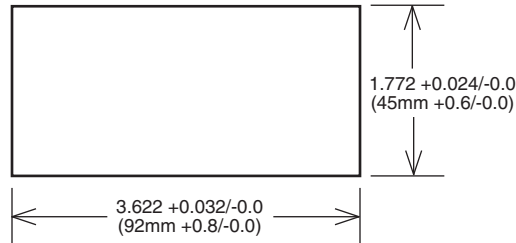
<b>5</b>	<b>SIGNAL CONDITIONERS</b>
MVI3 .....	20.000 V=20.000 For Voltage Input
MC12 .....	20.000 mA=20.000 For Current Input

## DIMENSIONAL INFORMATION

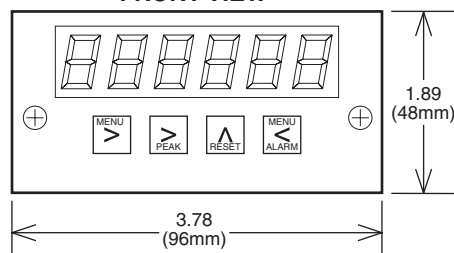
MICRO - P SERIES

MICRO - C SERIES

### PANEL CUTOUT



### FRONT VIEW



### BOTTOM VIEW

