

MICRO-C DISPLAY



Micro-C Displays – Compatible with UniMeasure Digital Transducers!

The Micro-C digital panel meter may be used with UniMeasure digital position transducers for the measurement of linear position or velocity. The microprocessor based Micro C features easy front panel programming, terminal strip detachable connectors on the rear face and a wide range of options to allow an exact configuration for the application.

With the Quadrature Signal Conditioner, the Micro C is capable of receiving quadrature inputs from UniMeasure transducers with either standard 5 VDC TTL output or optional 5 VDC differential output. Transducer electrical power is received from the meter. With simple jumper connections, counting mode may be set at X1, X2 or X4 to increase resolution accordingly. The meter may be scaled by using an offset and scale factor derived from the calibration constant supplied with UniMeasure transducers or scaling may be done using the two point method to give an output directly in engineering units.

With the extended version, MCRE, the Micro C can be configured to read rate from the pulse signal of UniMeasure digital transducers. Rate counting is possible in X1, X2 or X4 counting mode. The rate may be programmed to read in engineering units. The Micro-C display has two alarm indicators with setpoints that may be programmed from the front panel pushbuttons. Optional open collector transistors or dual 10 amp relays allow outputs to be set 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 20 mA (4 to 20 mA) analog outputs are available to drive chart recorders or for transmission to a central control unit. Adding RS-232 or RS-485 enables the displays to communicate with PLC's or computers. Software provided with these options allow programming the meter from a host computer.

SPECIFICATIONS

DISPLAY

Type 6 LED, 7-segment, 14.2 mm (.56")
high digits and 3 LED indicators
Color..... Red
Range -999,999 to +999,999

CONVERSION PERIOD

Gate Time..... 0 TO 199.99 sec.
Technique (frequency)..... 1/Period time
Rate..... Gate time + 10 ms + 2 periods of
the input signal

ACCURACY AT 25°C

Time Base (crystal) Calibrated to ±1 Count
V to F Converter 0.015%FS ± 1 Count
Span Tempco ±1PPM/°C
Long Term Drift..... ±5PPM/year
CMV (DC to 60Hz) Safety rated to 250 Vac

SIGNAL INPUT SPECIFICATIONS, CHANNELS A & B

High Level Input Max 250 VAC
High Level Input Min 0.25 VAC
Low Level Input Max 50 VAC
Low Level Input Min 0.01 VAC
Input Coupling..... AC or DC
Frequency Response 200 kHz max

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 (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

ENVIRONMENTAL

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

Model Number Configuration

Display

MCR Red LED (for Position)
MCRE Red LED (for Position or Rate)

Meter Power

0 85 to 264 VAC,
90 to 370 VDC
1 8 to 28 VAC,
9 to 37 VDC

Analog Output

H None
J 0 to 10 VDC
K 0 to 20 (4-20) mA DC

Setpoint Output

H None
R Dual 10 A Relay
C Open Collector

Signal Conditioners

Q Quadrature

Digital Interface

H None
2 RS-232
4 RS-485
B Parallel BCD

NOTE

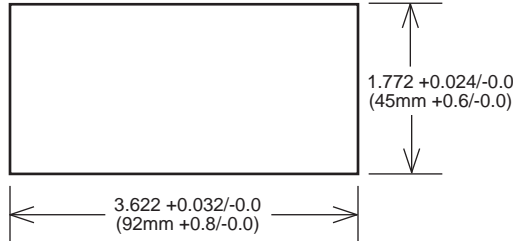
1) Shaded options available at additional cost.

Example

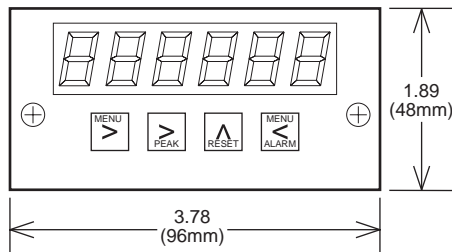
MCR-0-H-R-2-Q

DIMENSIONAL INFORMATION

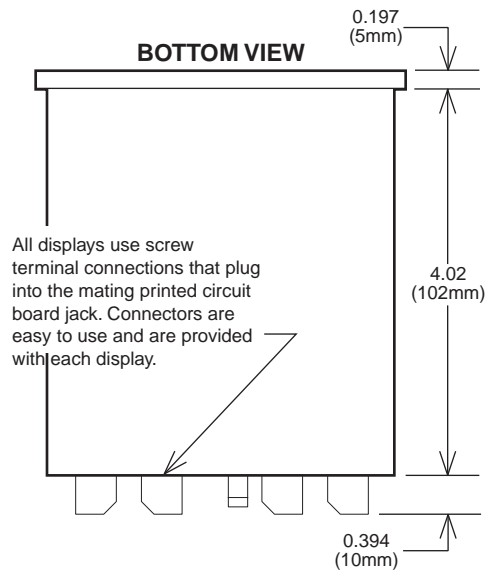
PANEL CUTOUT



FRONT VIEW



BOTTOM VIEW



All displays use screw terminal connections that plug into the mating printed circuit board jack. Connectors are easy to use and are provided with each display.