



## MIC 1880™

### Process and AC/DC Volts & Current Metering

#### 1/8 DIN Process Meter with Alarm

#### DESCRIPTION

The Partlow brand MIC 1880 is a series of 1/8 DIN instruments which offer breakthrough display technology as well as easy-to-program user setup. Its large LED display features the ability to change color based on process status such as exceeding the count preset. Therefore, when monitoring critical values, the MIC 1880 panel meter provides operators with an instant visual alert to changes in the application's status.

Models with input characteristics for temperature, DC Process, and AC or DC Volts/Amps are available. These intelligent units offer multiple control & alarm outputs, optional serial communication, and specialized functions on analog input units. The front panel is rated NEMA 4X/IEC IP65 for use in washdown or dusty environments.

#### APPLICATIONS:

The Partlow MIC 1880 digital indicator is an easy-to-use, low cost solution for indication and display within industrial temperature and process measurement applications – providing high visibility and excellent accuracy in a compact size.

#### INDUSTRIES

- Industrial and lab ovens/furnaces
- Plastics and thermal forming
- Packaging applications
- And any other display of process measurement especially where visible notification an out-of-range alarm condition is a requirement

#### FEATURES/BENEFITS

- Large Red/Green Color Selection Display also may be set to change color at alarm condition.
- 1/8 DIN - NEMA 4X/IP65 Front Panel Sealing
- Thermocouple, Process, Voltage and Current Input
- Optional Serial Communications
- Relay, Open-Collector and Linear Outputs
- High or Low Alarm Conditions

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Indicators

#### SPECIFICATIONS\*

##### STANDARD FEATURES

4 per second input sample rate  
Universal input  
Simple 4 button operation, Large 4 digit 18mm high red or green display with color change on alarm possible  
Plug-in output modules – install just the function needed  
Multipoint scaling & Tare functions  
Jumperless input configuration  
Auto-detection of installed output modules  
Process alarms  
Rugged ABS Plastic housing

##### ENVIRONMENTAL CHARACTERISTICS

**Operating Temperature:** 0° to 55° Celsius, 32° to 131° Fahrenheit  
**Storage Temperature:** -20° to 80° Celsius, -4° to 176° Fahrenheit  
**Relative Humidity:** 20% to 95% non-condensing

##### ELECTRICAL

**Supply Voltage:** 90-264 VAC, 50/60 Hz, or 20-50 VAC/VDC  
**Power Consumption:** 5 Watts

##### DISPLAY:

**Type:** Red/Green, 7 segment LED, 5 digit primary display, single digit secondary display  
**Height:** 0.71" (18mm) primary display, 0.3" (7mm) secondary display  
**Annunciators:** Output 1 & 2 status

##### CONTROL INPUTS:

**Type:** Sinking, Edge Sensitive  
**Logic:** Low  $\leq$  2.0 VDC, High  $\geq$  3.0  
**Response Time:** 25 ms  
**Impedance:** 4.7 k $\Omega$  to +Voltage  
**Function:** Programmable

##### SENSOR/PROCESS INPUTS:

**Temperature:** B, J, K, N, S, & T thermocouples, 3 & 4 wire RTDs  
**DC Process:** to 50 mA,  $\pm$ 10Volts DC,  $\pm$ 100 mV  
**AC Volts/Amps:** from 0-1 VAC to 0-600 VAC, 0-1 mA to 0-1 amp  
**DC Volts/Amps:** from 0-100 mV to 0-600 VDC, 0-1 mA to 0-2 amps

##### OUTPUTS

**Solid State:** NPN open collector, 30 VDC max., 100 mA max.  
**Relay:** SPDT, 5A resistive @110 VAC  
**Latency:** 75  $\mu$  seconds, plus 8 ms for relay pull-in  
**Linear Outputs:** 0-20mA, 4-20mA, 0-10V, 2-10V, 0-5V, 1-5V (field selectable)  
**Accessory Power Supply:** 24VDC nominal; 30mA max.

##### OUTPUT FUNCTIONS

**Alarm Modes (Alarm 1 and 2):** High/Low

##### ELECTRICAL PERFORMANCE

**Accuracy:**  $\pm$ 0.1% of span ( $\pm$ 0.01% of span for DC Process)

##### COMMUNICATIONS INTERFACE

**Interface:** RS-485; West ASCII  
**Baud Rate** selectable from 9600, 4800, 2400, or 1200  
**Maximum Zones:** 99

##### RATINGS/AGENCY APPROVALS

**Conformance:** UL, CUL, CE

##### PROTECTION

IEC IP65 (NEMA 4X) front panel

##### PHYSICAL DIMENSIONS

**Panel Cutout:** 1.77" x 3.62" (45mm x 92mm)  
**Width:** 3.78" (96mm)  
**Height:** 1.89" (48mm)  
**Depth:** 3.93" (100mm)  
**Weight:** 9 oz. (254g)  
**Mounting:** Panel Mount (bracket supplied)

##### WARRANTY

1 Year

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Partlow Brand MIC 1880 Data Sheet (7/05)

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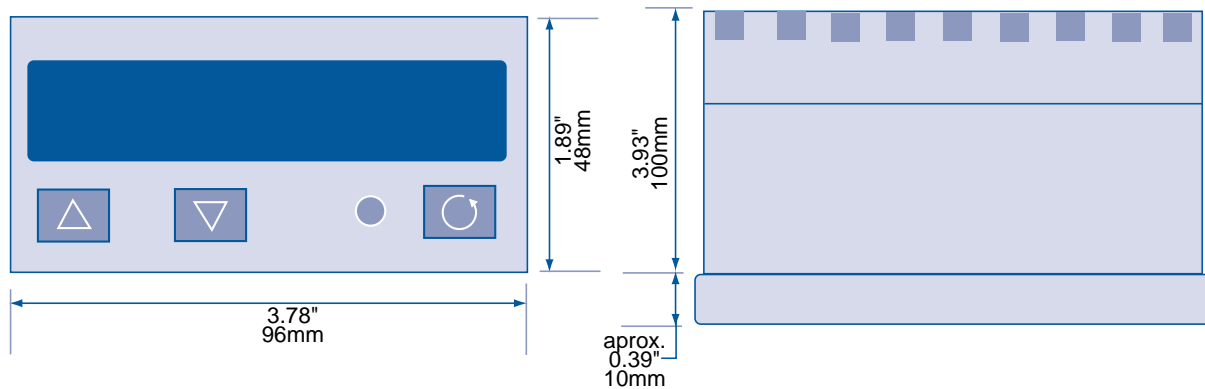
**Indicators**

**1/8 DIN Process Meter with Alarm**

## MODELS

Code 1: Model #	Code 2: Function	Code 3: 2nd Relay Option	Code 4: Linear Output Option	Code 5: Serial Communication Option	Code 6: Power Supply
<b>1880</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1/8 DIN Analog Input Process Indicator with Alarms	<b>1</b> Temperature <ul style="list-style-type: none"> <li>• Thermocouple</li> <li>• RTD</li> </ul> <b>2</b> DC Process <ul style="list-style-type: none"> <li>• 0 to 50mA</li> <li>• ± 10 Volts DC</li> <li>• ± 100mV</li> </ul> <b>3</b> AC Volts/Amps <b>5</b> DC Volts/Amps	<b>0</b> None <b>1</b> 2nd Relay	<b>0</b> None <b>3</b> Linear Output	<b>0</b> Not fitted <b>5</b> RS-485 Serial Comms <b>6</b> Digital Input Option	<b>0</b> 90-264 VAC <b>2</b> 20-50 VAC/VDC

## DIMENSIONS - 1/8 DIN



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Partlow Brand 1880+ Data Sheet (7/05)

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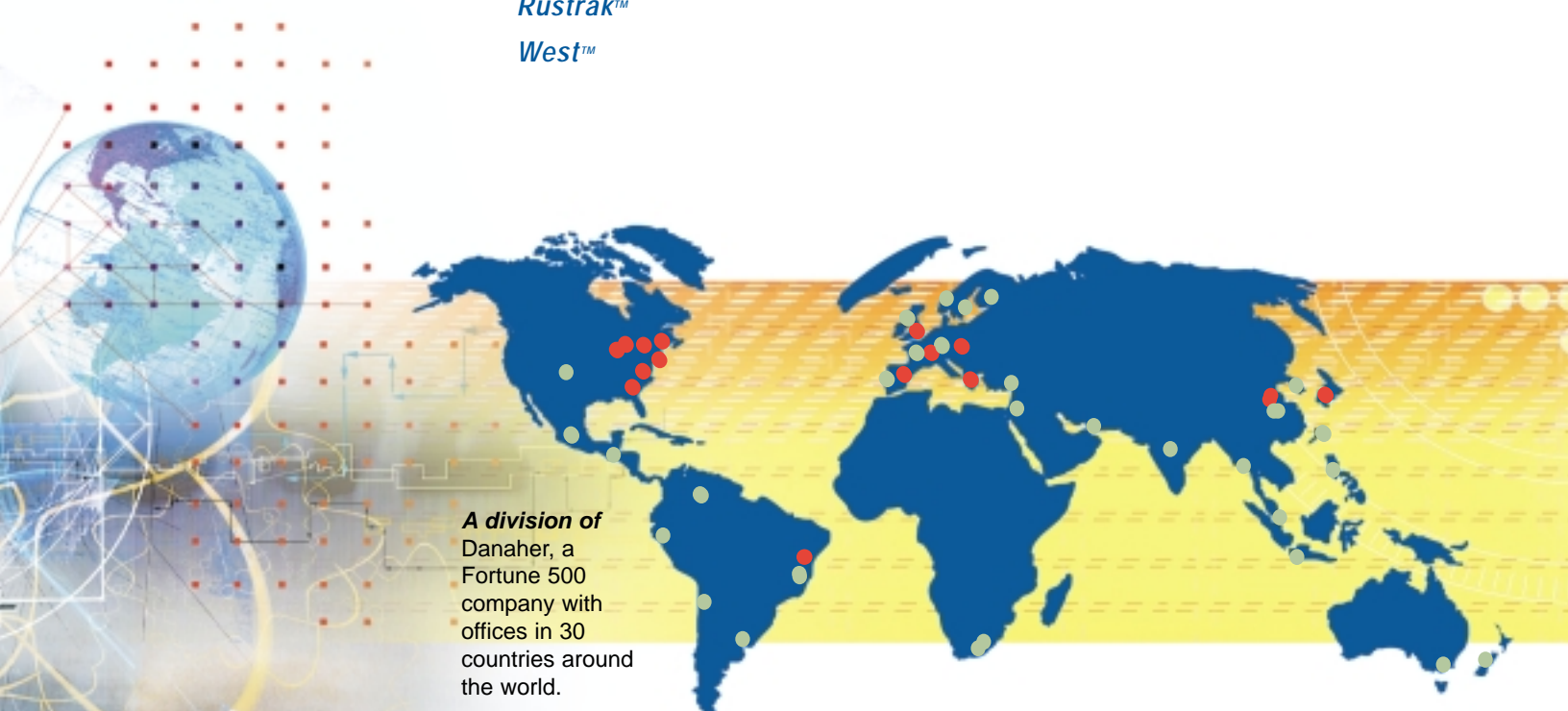
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For additional information or a full-line catalog, contact DICG Customer Service or visit our web site.

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