The Series DPML-4 LCD Digital Panel Meter offers a large 4-1/2 digit LCD display with a choice of red, amber or green segments for easy viewing at a distance. The meter accepts loop powered 4-20 mA DC input. Standard features include field engineering units and decimal point positions. A separate 24 VDC power supply is required for the operation of the back light.

**SPECIFICATIONS**

- **Inputs:** 4-20 mA DC.
- **Input Impedance:** 300 Ω nominal.
- **Accuracy:** ±(0.1% FS ± 2 count).
- **Backlight Power Supply:** 24 VDC @ 35 mA typical.
- **Span and Zero:** Adjustable (±19999 counts).
- **Display:** 4-1/2 digits, 7 segments, 0.45˝ (11.4 mm) H.
- **Decimal Points:** 4-position, user selectable.
- **Annunciator:** °F, °C, %, PSI.
- **Polarity:** Automatic, “-” displayed.
- **Operating Temperature:** 32 to 122°F (0 to 50°C).
- **Storage Temperature:** -4 to 158°F (-20 to 70°C)
- **Mounting:** Snap-in bezel mount.
- **Connection:** Screw terminals.
- **Weight:** 2 oz (56.7 g).
- **Conversion Rate:** 3 per second.
- **Normal Mode Rejection:** > 30 db @ 60 Hz.
- **Warm-Up:** 10 minutes typical.

**INSTALLATION**

The Series DPML-4 is designed to snap into a 2.4˝ (61 mm) W x 1˝ (25.4 mm) H panel cutout. No additional hardware is required.

**WIRING**

The unit is powered by a 4-20 mA loop and the screw terminal for wiring is located on the back of the adder board marked with + SIG -. The backlighting requires a 24 VDC power supply and should be connected to terminals identified with + B/L -.

**OPERATION**

Selecting Engineering Units

Four sets of jumper pins are located in the back of the meter, between the meter and the adder board. Move the jumper to fit over the appropriate pins which correspond to the desired engineering unit. See Figure 2.
Span & Zero Adjustment
The unit is equipped with a span adjustment and a zero to L,M,H. Then use the potentiometer for the zero adjustment.

Span Adjustment:
If:
Min Display is \( \leq 0 \) or
Min Display is > 0 and Max Display/Min Display > 5
Then:
Span Factor = \( \frac{2.5 \times (\text{Max Display} - \text{Min Display})}{4000 + 0.02 \times (\text{Min Display}) - 0.004 \times (\text{Max Display})} \)

If:
Min Display is > 0 and Max Display + Min Display \( \leq 5 \)
Then:
Span factor = \( \frac{\text{Max Display} - \text{Min Display}}{1600} \)

<table>
<thead>
<tr>
<th>Span Factor</th>
<th>Set Jumpers</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12</td>
<td>L</td>
</tr>
<tr>
<td>10-22</td>
<td>M</td>
</tr>
<tr>
<td>22-32</td>
<td>H</td>
</tr>
</tbody>
</table>

Zero Adjustment:
If:
Min Display is \( \leq 0 \) or
Min Display is > 0 and Max Display + Min Display > 5
Then:
Zero Factor = \( \frac{[250,000 + \text{Min Display}] \times 83,834}{(250,000 + 400 \times (\text{Span Factor}))} - 73,200 \)

If:
Min Display is > 0 and Max Display + Min Display \( \leq 5 \)
Then:
Zero Factor = \( 10,634 \times \frac{[\text{Min Display} - 400 \times (\text{Span Factor})] \times 83,834}{250,000} \)

<table>
<thead>
<tr>
<th>Zero Factor</th>
<th>Set Jumpers</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3994</td>
<td>H</td>
</tr>
<tr>
<td>3320-7314</td>
<td>M</td>
</tr>
<tr>
<td>6640-10634</td>
<td>L</td>
</tr>
</tbody>
</table>

MAINTENANCE
Upon final installation of the Series DPML-4 LCD Digital Process Meters, no routine maintenance is required. A periodic check of the system calibration is recommended. The Series DPML-4 is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return good authorization number before shipping.