

LOOP POWERED LCD DIGITAL PANEL METERS - EPIC SERIES

4 1/2 Digit LCD Display with Loop Powered Adder Board



Amber Negative



Red Negative



Green Negative

Bezel Mount



No Backlight

Features:

- Low-cost, high-performance replacement for many OEM DPMs
- Optional Red, Green or Amber backlighting
- Snap-in bezel mount eliminates mounting hardware
- Resistant to RF and EMI
- 4 1/2 digits with high-contrast LCD Display
- 4- 20 mA loop powered input
- User selectable, displayed engineering units

Specifications:

| | |
|------------------------|--|
| Display: | |
| Digits: | 4 1/2 digits (±19999 counts) |
| Type: | 0.45" (11.4 mm) 7 segment LCD |
| Backlighting**: | Optional Red Negative (red numbers/black background) Optional Green Negative (green numbers/black background) Optional Amber Negative (amber numbers/black background) |
| Polarity: | Automatic, "+" displayed |
| Annunciators: | °F, °C, PSI, % |
| Decimal Points: | 4 position, user selectable |
| Overload: | Four lower order digits blank for inputs >19999 |
| Inputs: | |
| Ranges: | 4-20mA DC |
| Configuration: | Bipolar Differential |
| Impedance*: | 300 nominal |
| Performance: | |
| Accuracy: | ±(0.1% fs + 2 count) |
| Conversion Rate: | 3 per second |
| Normal Mode Rejection: | >30 db @ 60 Hz |
| Common Mode Range: | ±1V DC max |
| Common Mode Rej.: | >86 dB |
| Adjustments: | Span (gain) and Zero (offset) |
| Warmup: | 10 minutes typical |
| Temperature Coeff.: | ± 100 ppm per °C typical |
| Environment: | |
| Operating Range: | 0 to 50 °C |
| Storage Range: | -20 to 70 °C |
| Power Supply: | |
| | Powered by the Milliamp Control Loop |
| Optional Backlight: | 24V DC at 35 mA typical |
| Mounting: | |
| | Snap-in Bezel mount |
| Connection: | |
| | 2 screw terminal (4 with backlight) |

*Impedance is rated at 24 Vdc and 20mA. Exercise caution to avoid too much impedance in the current loop. Most transmitters are rated 500 to 750Ω.

**Negative backlighting is lighted numerals.
Positive backlighting is lighted background.

Ordering Information:

EPIC Series Loop Powered LCD DPM Part Numbering

Backlight Type:

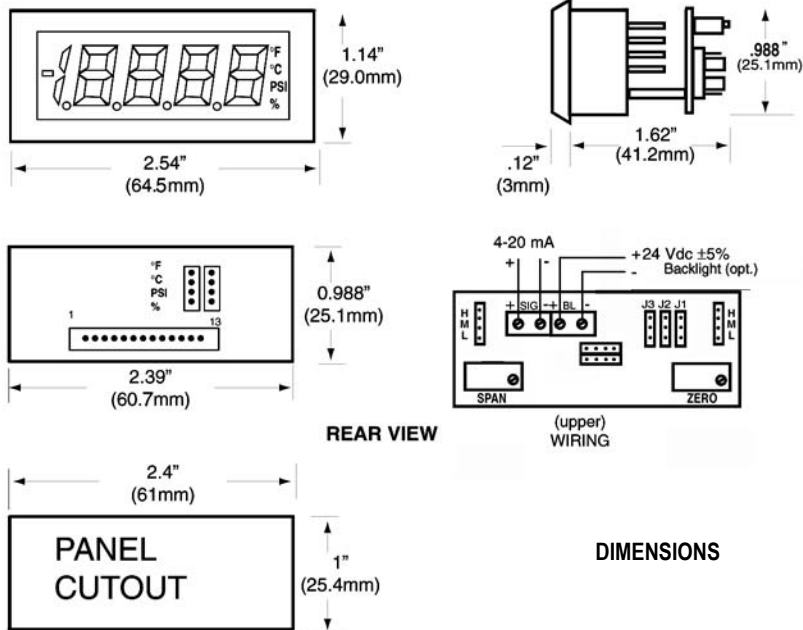
DK791 = Amber Negative
DK793 = Green Negative
DK794 = Red Negative
DK790 = No Backlight

PW2-24Regulated 120V AC to 24V DC Adaptor



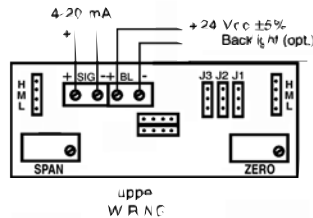
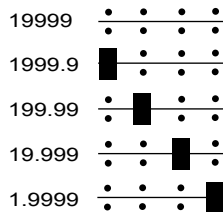
C-TON Industries • PO Box 10129 • Bedford, NH, 03110 • USA

Dimensions



JUMPER SELECTION AND WIRING

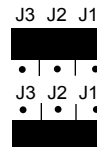
1. DECIMAL SELECTION:



2. J1, J2, J3 SELECTION:

IF: MIN DISPLAY IS 0 **or** MIN DISPLAY IS > 0 **and** MAX DISPLAY ÷ MIN DISPLAY > 5

IF: MIN DISPLAY IS > 0 **and** MAX DISPLAY ÷ MIN DISPLAY 5



3. SPAN JUMPER SECTION:

| SPAN FACTOR | SET JUMPERS |
|-------------|-------------|
| 0-12 | L |
| 10-22 | M |
| 22-32 | H |

IF: MIN DISPLAY IS 0 **or** MIN DISPLAY IS > 0 **and** MAX DISPLAY ÷ MIN DISPLAY > 5

THEN: SPAN FACTOR = $\frac{2.5 (\text{MAX DISPLAY} - \text{MIN DISPLAY})}{4000 + 0.02 (\text{MIN DISPLAY}) - 0.004 (\text{MAX DISPLAY})}$

IF: MIN DISPLAY IS > 0 **and** MAX DISPLAY ÷ MIN DISPLAY 5

THEN: SPAN FACTOR = $\frac{\text{MAX DISPLAY} - \text{MIN DISPLAY}}{1600}$

4. ZERO (OFFSET) JUMPER SELECTION:

| ZERO FACTOR | SET JUMPERS |
|-------------|-------------|
| 0-3994 | H |
| 3320-7314 | M |
| 6640-10634 | L |

IF: MIN DISPLAY IS 0 **or** MIN DISPLAY IS > 0 **and** MAX DISPLAY ÷ MIN DISPLAY > 5

THEN: ZERO FACTOR = $\frac{(250000 + \text{MIN DISPLAY}) \times (83834) - 73200}{(250000 + 400 (\text{SPAN FACTOR}))}$

IF: MIN DISPLAY IS > 0 **and** MAX DISPLAY ÷ MIN DISPLAY 5

THEN: ZERO FACTOR = $\frac{(10634 - (\text{MIN DISPLAY} - 400 (\text{SPAN FACTOR})) \times 83834}{250000}$