



# 4-1/2 DIGIT LCD PANEL DISPLAY MODELS LPI-3C-A, G, R

## DESCRIPTION

The **Model LPI-3C** is a 4-20 mA, brightly-lit 4-1/2 digit display. Along with the standard black digits, colors of amber, green, and red, powered by 24 VDC, are also available. The **Model LPI-3C** also features jumper-selectable, built-in engineering units of °F, °C, PSI, %, or no units. For those units with colored digits, the same 24 VDC power supply can be used to provide power to the 4-20 mA loop, and the display.

## FEATURES

- 4-20 mA signal input
- Optional, bright 4-1/2 digit LCD colored display
- Available in black, amber, green, or red digits
- Snap-in panel mounting
- Large, easy-to-read LCD display
- NEMA 4X Enclosure available
- Precalibrated before shipping for desired range
- Negative to positive indication
- Jumper-selectable engineering unit display

## APPLICATION

- Temperature
- Humidity
- Pressure
- Differential or static pressure
- Kilowatt demand



LPI-3C-A-WMB



LPI-3C  
(typical panel mount)



LPI-3C-G-E



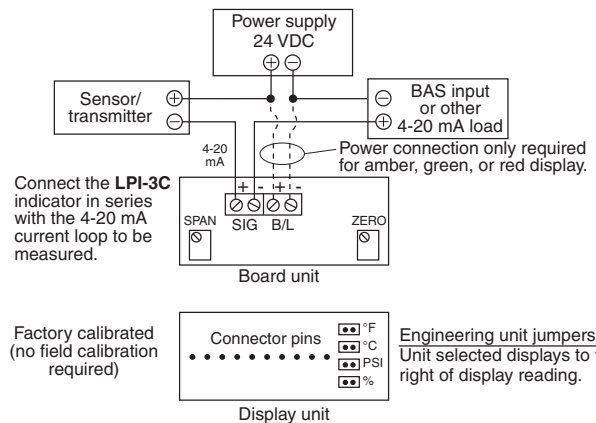
LPI-3C-R-E-DBL

- Gallons per minute
- Voltage
- Current
- Many other 4-20 mA applications

## SPECIFICATIONS

<b>Power (backlight)</b>	24 VDC @ 35 mA for colored digits
<b>Input signal</b>	Loop-powered 4-20 mA signal
<b>Impedance</b>	300Ω nominal @ 24 VDC
<b>Accuracy</b>	0.1% FS
<b>Digit size</b>	0.5" (1.27 cm) LCD
<b>Decimal point</b>	Four positions or none (1.0.0.0.0)
<b>Range</b>	-19999 to +19999
<b>Operating temp</b>	32° to 122°F (0° to 50°C)
<b>Humidity</b>	95% noncondensing
<b>Cutout required</b>	1.00"H x 2.40"W (2.54 x 6.10 cm)
<b>Panel clearance</b>	1.97" (5.00 cm)
<b>Enclosure option E (NEMA 4X)</b>	6.0"H x 6.0"W x 3.0"D (15.2 x 15.2 x 7.62 cm)
<b>WMB</b>	2.12"H x 3.12"W x 1.75"D (5.4 x 7.94 x 4.45 cm)
<b>Weight (display only)</b>	2.3 oz (56.7g)

## WIRING



## ORDERING INFORMATION

\*Displays are custom calibrated at no charge before shipping.

Specify signal input scale, range, engineering units, and decimal location when ordering.

MODEL	DESCRIPTION
LPI-3C	4-1/2 digit LCD panel display*
-	4-1/2 digit display with black digits
A	4-1/2 digit display with amber digits. (This unit not RoHS compliant)
G	4-1/2 digit display with green digits
R	4-1/2 digit display with red digits
-	No enclosure
E	4-1/2 digit LCD panel display with NEMA 4X enclosure
WMB	4-1/2 digit LCD panel display with small enclosure
E-DBL	Two 4-1/2 digit LCD panel displays in a single NEMA 4X enclosure

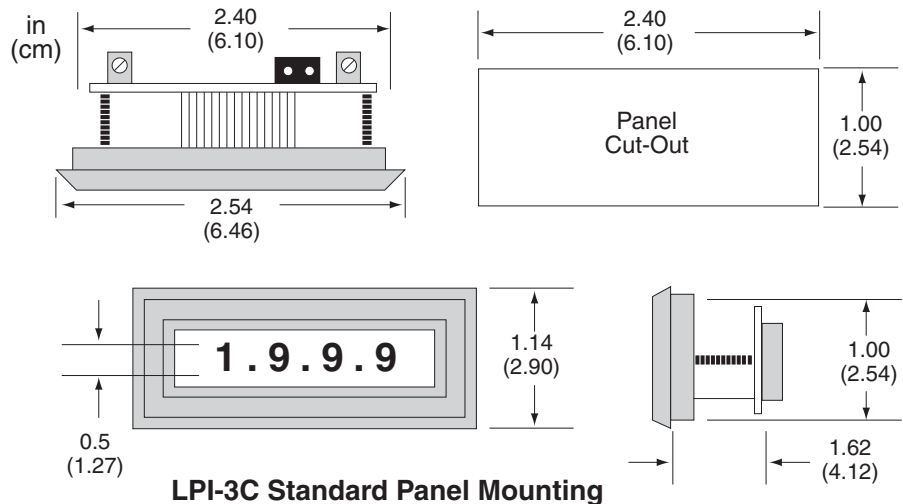
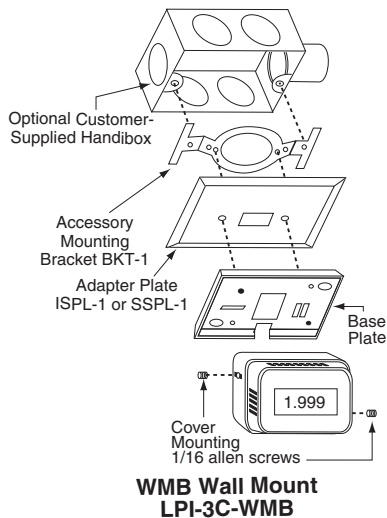
LPI-3C - A - E-DBL Example: LPI-3C-A-E-DBL Two amber 4-1/2 digit LCD displays mounted in a single enclosure.

## RELATED PRODUCTS

GP3420  
GP3430

LPI-1C, LPI-3C, VPI-1C mounting plate, 3.40" x 2.00" (8.6 x 5.1 cm)  
LPI-1C, LPI-3C, VPI-1C mounting plate, 3.40" x 3.00" (8.6 x 7.6 cm)

## DIMENSIONS/MOUNTING INFORMATION



## RECALIBRATION INFORMATION

### Decimal Point Setup

Install one jumper (J4, J5, J6, or J7) to display decimal.

<b>19999</b>	=	<b>No Jumper</b>
<b>1999.9</b>	=	<b>J7</b>
<b>199.99</b>	=	<b>J6</b>
<b>19.999</b>	=	<b>J5</b>
<b>1.9999</b>	=	<b>J4</b>

### Range Setup

- If minimum display is negative, or  
If minimum display is zero, or  
If minimum display is positive and  $\frac{\text{max display}}{\text{min display}} > 5$

Then, perform the following,

1. Set jumpers J1, J2, J3, to "A" position.
2. Compute "Span Factor" from  

$$\text{Span Factor} = \frac{2.5 (\text{max display} - \text{min display})}{4000 + 0.02 (\text{min display}) - 0.004 (\text{max display})}$$
3. Set span jumper according to Table 1.
4. Compute "Zero Factor" from  

$$\text{Zero Factor} = \frac{(250,000 + \text{min display})}{(250,000 + 400 (\text{span factor}))} \times (83,834) - 73,200$$
5. Set zero jumper according to Table 2.

- If minimum display is positive and  $\frac{\text{max display}}{\text{min display}} \leq 5$

Then, perform the following:

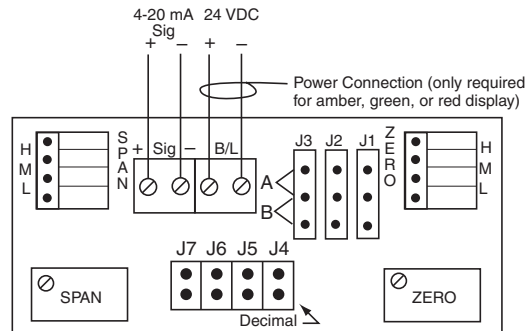
1. Set jumpers J1, J2, J3 to "B" Position.
2. Compute "Span Factor" from  

$$\text{Span Factor} = \frac{\text{max display} - \text{min display}}{1600}$$
3. Set span jumper according to Table 1.
4. Compute "Zero Factor" from  

$$\text{Zero Factor} = 10,634 - \frac{(\text{min display} - 400 (\text{span factor})) \times 83,834}{250,000}$$
5. Set zero jumper according to Table 2.

### Final Adjustment Setup

1. Apply 4.00 mA, and adjust the zero pot for the desired low numeric display.
2. Apply 20.00 mA, and adjust the span pot for the desired maximum numeric display.
3. Repeat steps 1 and 2 until both desired high and low readings are obtained (four to five passes typical).



**TABLE 1. SPAN FACTOR**

For Span Factor of	Set Span Jumpers to
0 - 12	L
10 - 22	M
20 - 32	H

**TABLE 2. ZERO FACTOR**

For Zero Factor of	Set Zero Jumpers to
0 - 3994	H
3320 - 7314	M
6640 - 10634	L