



HLPI-4-XEC Series

4.5 Digit LCD Panel Meter



Features

- Low-cost, high-performance replacement for many OEM DPMs.
- Optional RED, GREEN, AMBER or POS GREEN backlit LCD
- Snap-in bezel mount eliminates mounting hardware
- Resistant to RF and EMI.
- 4½ digits with high-contrast LCD.
- 4-20 mA loop powered input.
- User-selectable, displayed engineering units.
- Clamp and gasket for NEMA applications

Ordering Info

Part #	Backlight Color	Backlight Power
HLPI-4-XEC	NO BACKLIGHT	NONE
HLPI-4A-XEC	NEG AMBER	24VDC
HLPI-4R-XEC	NEG RED	24VDC
HLPI-4G-XEC	NEG GREEN	24VDC
HLPI-4GP-XEC	POS GREEN	24VDC

Accessories

PW2-24	Regulated 120V AC to 24V DC Power Supply
PW1.0	24V AC to adjustable DC output
PW1.5	24V AC to adjustable DC output
CVC	Calibrator

4½ Digit LCD with Loop Powered Board

Specifications

Display

Digits:	4 ½ 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) Optional Green Positive (black numbers/green background)
Polarity:	automatic, "-" displayed
Annunciators:	°F, °C, PSI, % user-selectable
Decimal Points:	4 position, user-selectable
Overrange:	four lower order digits blank for inputs >19999 & < -19999

Inputs

Ranges:	4-20 mA DC
Configuration:	bipolar differential
Impedance:	300Ω nominal @ 20 mA

Performance

Accuracy:	±(0.1% fs + 2 count)
Conversion Rate:	3 per second
Normal Mode Rejection:	>30 dB @ 60 Hz
Common Mode Range:	±1 VDC 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:	-10 to 70 °C

Power Supply

Optional Backlight:	powered by the milliamp control loop 24 VDC at 35 mA typical
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Mounting

snap-in bezel mount
or clamp and gasket

Connection

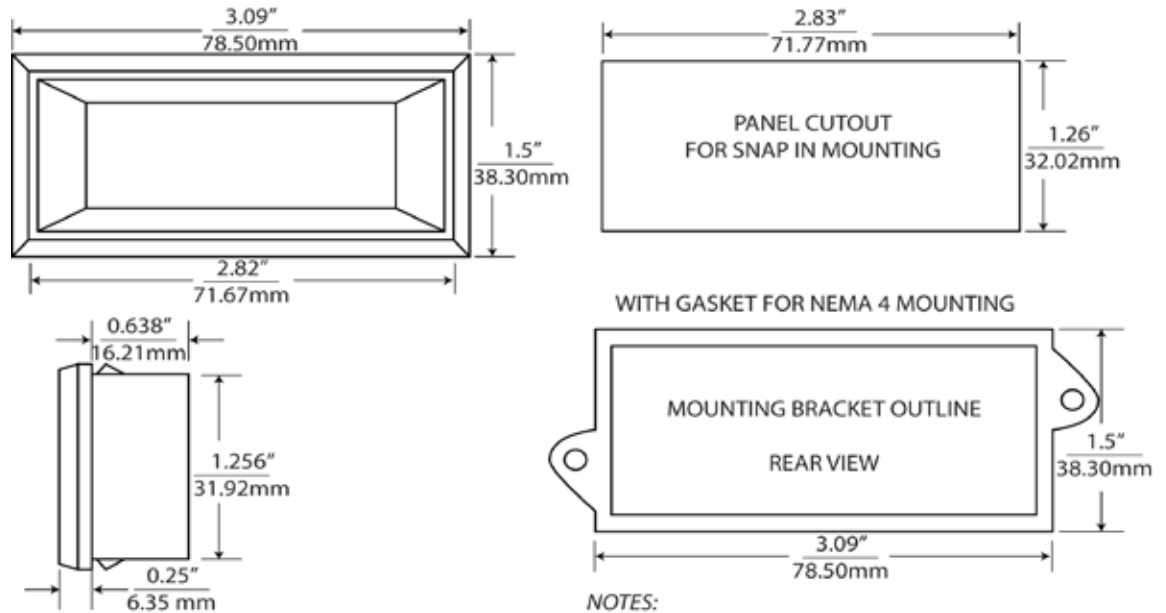
2 screw terminal (4 with backlight)



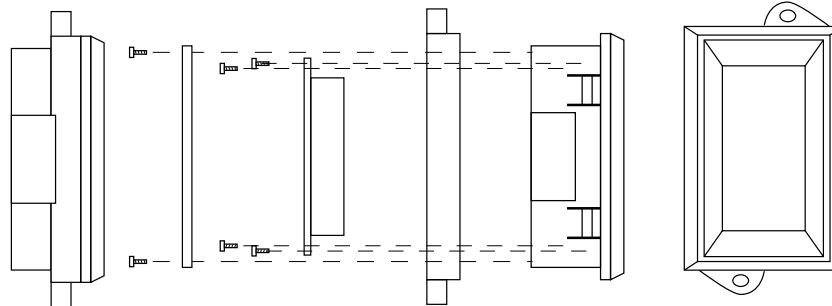
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Dimensions

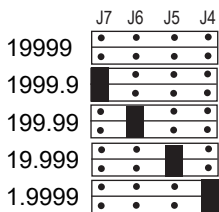


NOTES:
 1. Panel thickness is: 0.032"/0.81mm to 0.25"/6.35mm
 2. Gasket supplied is: 0.09"/2.25mm thick



Jumper Selection & 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 = $\frac{2.5 (\text{Max display} - \text{Min display})}{4000 + 0.02 (\text{Min display}) - 0.004 (\text{Max display})}$

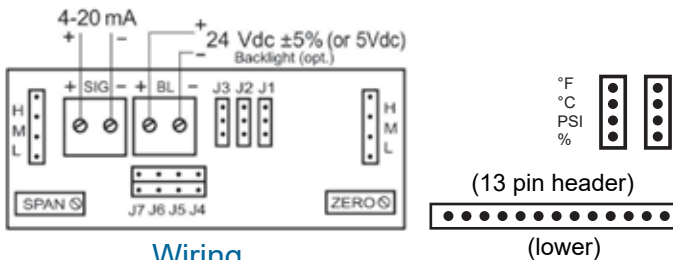
IF: Min display is > 0 and Max display ÷ Min display ≤ 5
Then: Span Factor = $\frac{\text{Max display} - \text{Min display}}{1600}$

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 = $\frac{(250000 + \text{Min display})}{(250000 + 400 (\text{Span Factor}))} \times (83834) - 73200$

IF: Min display is > 0 and Max display ÷ Min display ≤ 5
Then: Zero Factor = $\frac{10634 - (\text{Min display} - 400 (\text{Span Factor})) \times 83834}{250000}$



Wiring

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