

# LCD DIGITAL PANEL METERS

Large, low-cost 3 1/2 Digit LCD Display



**No Backlight**  
Window/Surface Mount (Actual size)



**Red Negative**  
Window Mount (Actual size)

## Features:

- Low-cost, high-performance replacement for many OEM DPMs
- Mounting choices:
  - Window mount for custom OEM
  - Surface mount with minimum space behind the panel
- Low power: choice of 180µA (9V, ±5V) or 2.5mA (+5V)
- Space-saving design: only 1" (25 mm) deep
- Occupies less than 2.5 X 1.1 inches of front panel space
- 3 1/2 digits with high-contrast LCD Display

## Specifications:

<b>Display:</b>	
Digits:	3 1/2 digits (±1999 counts)
Type:	0.5" (12mm) high-contrast reflective LCD
Polarity:	Automatic, "-" displayed
Decimal Points:	3 position, user selectable
Overload:	Three lower order digits blank for inputs >1999 & <-1999
Hold:	Available OEM option, contact factory
<b>Inputs:</b>	
Ranges:	±200.0mV, ±2.000V, ±20.00V DC
Configuration:	Bipolar & Differential
Protection:	±350V DC, (±100V DC on 200mV range)
Impedance:	>10 Megohm, (>1 Megohm on 20V range)
<b>Performance:</b>	
Accuracy:	±(0.1% + 1 count) typical ±(0.1% + 2 counts) maximum
Conversion Rate:	2.5 per second
Normal Mode Rejection:	>30 db @ 60 Hz
Common Mode Range:	±1V DC
Common Mode Rej.:	>86 dB
Zero Adjustment:	Automatic
Warmup:	10 minutes typical
Temperature Coeff.:	± 100 ppm per °C typical
<b>Environment:</b>	
Operating Range:	0 to 50 °C
Storage Range:	-20 to 70 °C
<b>Power Supply:</b>	
5V powered DPM:	+5V DC (±5%) at 2.5 mA
9V(±5V) powered:	+7.2 to +12 V at 180 uA
<b>Mounting:</b>	
	Surface or Window Mount
<b>Connection:</b>	
	13 pins, 0.025" square on 0.1" centers - pin 3 missing

## Ordering Information

MODEL	DESCRIPTION
DK101	3 1/2 digit, 9V power, 200mV Input
DK102	3 1/2 digit, 9V power, 2V Input
DK103	3 1/2 digit, 9V power, 20V Input
DK301	3 1/2 digit, 5V power, 200mV Input
DK302	3 1/2 digit, 5V power, 2V Input
DK303	3 1/2 digit, 5V power, 20V Input
DK311	3 1/2 digit, 9V power, 200mV Input, Pos. GREEN
DK312	3 1/2 digit, 9V power, 2V Input, Pos. GREEN
DK331	3 1/2 digit, 5V power, 200mV Input, Pos. GREEN
DK332	3 1/2 digit, 5V power, 2V Input, Pos. GREEN
DK411	3 1/2 digit, 9V power, 200mV Input, Neg. GREEN
DK412	3 1/2 digit, 9V power, 2V Input, Neg. GREEN
DK431	3 1/2 digit, 5V power, 200mV Input, Neg. GREEN
DK432	3 1/2 digit, 5V power, 2V Input, Neg. GREEN
DK511	3 1/2 digit, 9V power, 200mV Input, Neg. RED
DK512	3 1/2 digit, 9V power, 2V Input, Neg. RED
DK531	3 1/2 digit, 5V power, 200mV Input, Neg. RED
DK532	3 1/2 digit, 5V power, 2V Input, Neg. RED

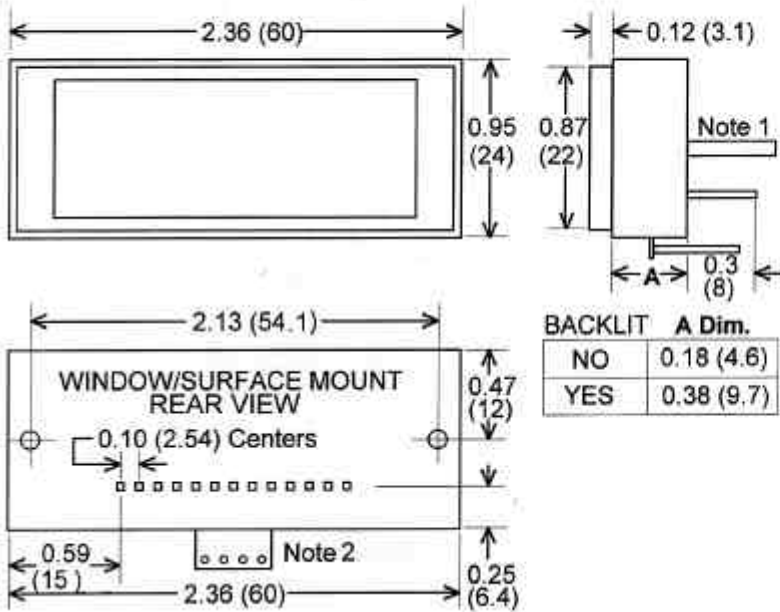
**J4C13** .....13 Pin Connector / Wire Assembly .....  
**PW2-5**.....Regulated 120V AC to 5V DC Adaptor .....



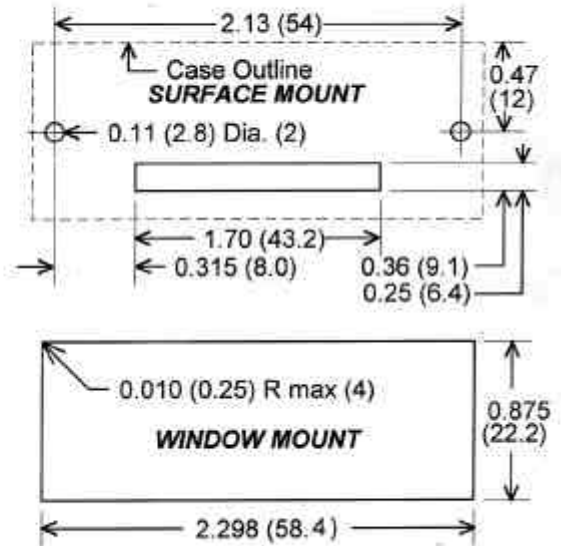
**C-TON Industries** • PO Box 10129 • Bedford, NH, 03110 • USA  
 03110-0129

# Dimensions

## WINDOW/SURFACE MOUNT DIMENSIONS



## PANEL CUTOUTS



## CONNECTION DESCRIPTION

PIN#	13-PIN	DESCRIPTION
1	V+	POSITIVE DPM PWR SUPPLY
2	V-	NEG PWR FOR 9V OR +/-5V DPMS
3	NC	NO PIN
4	TST	NEG/GRD FOR +5V DPMS
5	COM	ANALOG COMMON
6	INLO	NEGATIVE INPUT SIGNAL
7	INHI	POSITIVE INPUT SIGNAL
8	(CLK)	OPTIONAL HOLD INPUT
8	RFL	NEGATIVE REFERENCE INPUT
9	RFH	POSITIVE REFERENCE INPUT
10	ROH	INTERNAL REFERENCE OUTPUT
11	D3	1.XXX DECIMAL POINT
12	D2	1X.XX DECIMAL POINT
13	D1	1XX.X DECIMAL POINT



### BACKLIGHT POWER CONNECTIONS

(OPTIONAL)

Solder on front tab.

BACKLIGHT	SUPPLY CONNECTIONS	
COLOR	POSITIVE (+)	NEGATIVE (-)
GREEN	L1	L2
RED	L2	L1

### NOTES:

1. Check DPM P/W for correct voltage.
2. The backlight power is separate from the DPM power. To reduce noise, the returns of the supplies should be connected together.