

C+C Miniature LCD Digital Panel Meters CX101

CX101 series of digital panel meters proved to be of high reliability, good quality and fine workmanship with competitive pricing for a variety of applications. Combining unmatched performance with a high degree of reliability, the 3-1/2 digit LCD panel meter is the first choice for many applications that require instrumentation.



CX101 series consist of 2 versions:

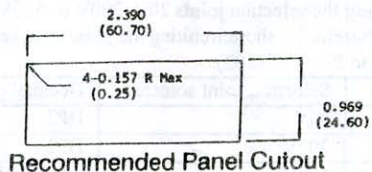
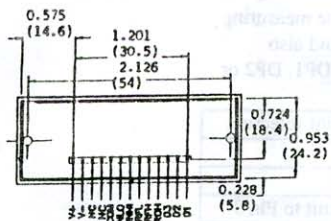
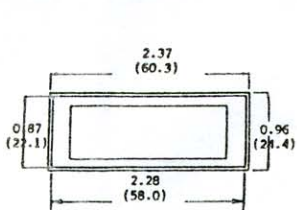
- 1) CX101A: 9V power supply. if connected as overleaf, can be used common grounded.
- 2) CX101B: 5V power supply, common ground

Both versions can be connected in a way that enables the power supply can have common ground with signal to be measured.

Specifications:

Display	CX101A	CX101B
Type of display	LCD	LCD
Digits	3-1/2digits (1999)12.7mm figure height	3-1/2digits (1999)12.7mm figure height
Polarity	Automatic. (-) for negative value	Automatic. (-) for negative value
Power	9V powered	5V powered,common ground
Decimal Point	User selectable	User selectable
Over Range	Display 1	Display 1
Input(Analog)		
Full scale range	200mV	200mV
Configuration	True differential input and reference	True differential input and reference
Bias Current	10pA maximum	10pA maximum
Impedance	10MΩ	10MΩ
Operation		
Accuracy	±(0.1%rdg.+1 dgt.)	±(0.1%rdg.+1 dgt.)
Conversion rate	2.5 per second	2.5 per second
Com ModeVoltage	±1V maximum	±1V maximum
Com Mode Reject	>86 decibels	>86 decibel
Zeroing	Automatic	Automatic
Tempco	Standard +100ppm/°C	Standard +100ppm/°C
Operating Temp	Standard 0 to 50°C	Standard 0-50°C
Storage Temp	Standard -20 to 70°C	Standard -20 to 70°C
Mounting	Window Plug-in	Window Plug-in
Connection Pins	13 pins	13 pins

- | | |
|-----------------------|--|
| Pin 1 - V+ | Pin 8 - RFL |
| Pin 2 - V- | Pin 9 - RFH |
| Pin 3 - No Connection | Pin 10 - ROH |
| Pin 4 - No Connection | Pin 11 - D1 Decimal point left of hundreds digit |
| Pin 5 - COM | Pin 12 - D 2 Decimal point left of tens digit |
| Pin 6 - INLO | Pin 13 - D3 Decimal point left of units digit |
| Pin 7 - INHI | |



Full Scale Adjustment

This is done and Q.C.ed in our factory. However, after adding voltage divider, further adjustment sometimes is needed to the trimpot on the back of this DPM.

Decimal Point Selection

The decimal point is user selectable for three positions by simple pinstrapping. The decimal point is selected as follows:

- Pin 13 shortcircuits to Pin 1 - lights the decimal point left to hundreds digit
- Pin 12 shortcircuits to Pin 1 - lights the decimal point left to tens digit
- Pin 11 shortcircuits to Pin 1 - lights the decimal point left to units digit

Caution

For CX101A, the supply voltage should be between 7.2-12V DC

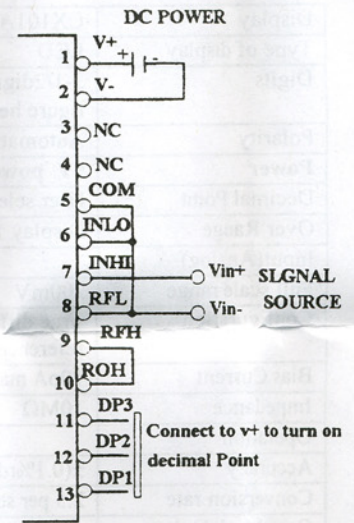
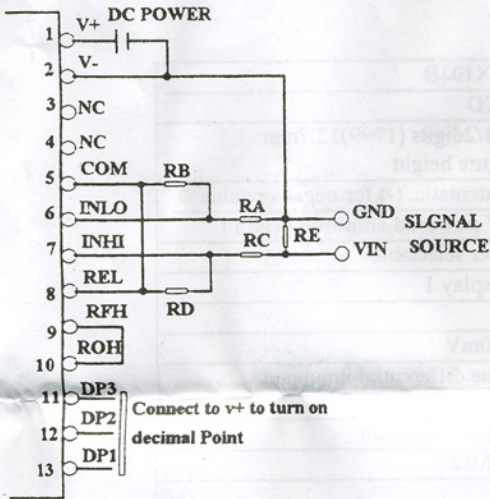
For CX101B, the supply voltage should be between 4.75-5.25V DC.

Outside the operating voltage will damage the units permanently.

CX101A、CX101B DPM Connections

Notes: CX101A: (7-12V POWER)

CX101B: (4.75~5.25V POWER)



Wiring Diagram for CX101A (9V version)
used in a common ground application.

Wiring Diagram for CX101A/B used in
independent power applications

Resistor value of RA, RB, RC, RD, RE for measuring range 0-500V:

	RA	RB	RC	RD	RE
20V	10M	101K	10M	101K	50K 1/2W
200V	10M	10K	10M	10K	50K 1W
500V	10M	1K	10M	1K	100K 3W

RA, RB, RC are Resistors of 1/2W, 0.5%; RE is 5%

How to use the add-on board:

We have also developed an easy-to-use add-on board, to have all the precision voltage divider resistor added thereon.

- 1) The add-on board is used to expand the measuring range from $\pm 200\text{mV}$ DC to $\pm 20\text{V}$, $\pm 200\text{V}$, $\pm 500\text{V}$ DC.
- 2) Make the measuring range selection by soldering the selection joints 20V, 200V or 500V and also select the decimal point therefor by shortcircuiting the points marked DP1, DP2 or DP3 to Pin 1 (CX101) or to Pin 3 (CX102).

Max measuring range	Selection Joint soldered	Decimal point selection
0-20V	20V	DP2
0-200V	200V	DP1
0-500V	500V	no shortcircuit to Pin 3

3. Connect an independent 9V voltage to V+ and V- of the add-on board. And connect the both ends of the voltage to be measured to Vin and GND on the board.
4. Insert the pins on the back side of CX101 or CX102 into the socket of the add-on board, pin by pin, 13 pin socket for CX101 or 10 pin socket for CX102. especially pay attention to polarity.
5. The miniature digital panel meter and the add-on board are ready to use.