



3½D LCD Digital Panel Meter

Model : LC035



User Manual

1. FEATURES :

- 200mV full scale input sensitivity.
- Single 9V DC operation.
- Decimal point selectable.
- 13mm figure height.
- Automatic Polarity indication.
- Guaranteed zero reading for 0 volt input.
- High input impedance (> 100 MΩ)
- Easy Bezel fixing Method.

2. APPLICATIONS :

- a) Voltmeter
- b) Thermometer
- c) PH Meter
- d) DB Meter
- e) Watt Meter
- f) Current Meter
- g) Capacitance Meter
- h) Lux Meter
- i) LCR Meter
- j) Other industrial & domestic uses.

3. SPECIFICATIONS :

- Maximum Input : 199.9mV DC
- Maximum Display : 1999 counts (3½ Digit) with automatic polarity indication
- Indication Method : LCD Display
- Measuring Method : Dual-Slope Integration A-D converter system
- Overrange indication : " 1 " shown in the display.
- Reading rate time : 2-3 reading per second.
- Input Impedance : > 100MΩ
- Accuracy : ± 0.5% of full scale (23±5°C < 80%RH)
- Power Dissipation : 1mA DC
- Decimal Points : Selectable with wire jumper
- Supply Voltage : 7-11V DC
- Size : 68mm x 44mm

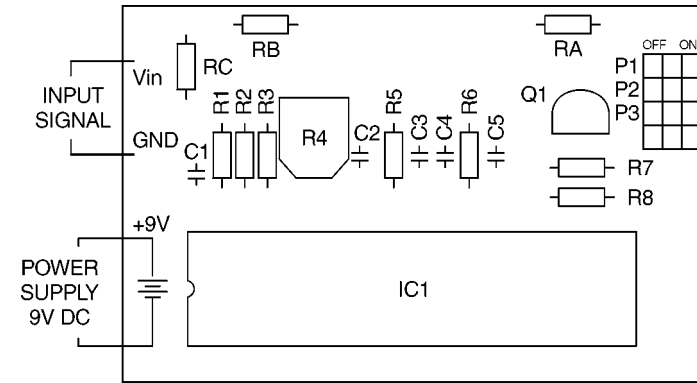
4. OPERATION :

- a) If needed, add proper voltage dividers (not included) and decimal point wire jumper.

Max. Voltage to be measured	Proper Voltage Divider	Decimal Point fixing method
200mV	-	Shortcircuit P1 on & P2, P3 off
20V	Disconnect wire jumper in RB RA = 100KΩ, RB = 9.9MΩ	Shortcircuit P2 on & P1, P3 off
200V	Disconnect wire jumper in RB RA = 10KΩ, RB = 9.99MΩ	Shortcircuit P2 on & P1, P3 off
500V	Disconnect wire jumper in RB RA = 1KΩ, RB = 9.999MΩ	

Shortcircuit N on to enable polarity sign function or shortcircuit N off to disable polarity sign function RA and RB are ½ W 0.5% Metal film resistors.

- b) Connect 7-11 DC power supply to panel meter. Pay attention to the proper polarity.
- c) For range other than 200mV, input accurately ½ x Max. Voltage generated by calibrator (e. g. 100.0V for 200.0V range) and carefully adjust the semi-fixed resistor R4 to have some reading in L.C.D.
- d) Connect the input voltage to be measured to V in and GND. The input voltage should be DC only.



NOTE



MECO INSTRUMENTS PRIVATE LTD.

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3½D LED Digital Panel Meter

Model : LC135



User Manual

1. FEATURES :

- 200mV full scale input sensitivity.
- Single 5V DC operation.
- Decimal point selectable.
- 14.2mm figure height.
- Automatic Polarity indication.
- Guaranteed zero reading for 0 volt input.
- High input impedance (> 100 MΩ)
- Easy Bezel fixing Method.

2. APPLICATIONS :

- a) Voltmeter
- b) Thermometer
- c) PH Meter
- d) DB Meter
- e) Watt Meter
- f) Current Meter
- g) Capacitance Meter
- h) Lux Meter
- i) LCR Meter
- j) Other industrial & domestic uses.

3. SPECIFICATIONS :

- Maximum Input : 199.9mV DC
- Maximum Display : 1999 counts (3½ Digit) with automatic polarity indication
- Indication Method : LED Display
- Measuring Method : Dual-Slope A-D converter
- Overrange indication : " 1 " or " -1 " shown in the display.
- Reading rate time : 2-3 reading per second.
- Input Impedance : > 100MΩ
- Accuracy : ± 0.5% of full scale (23⁰±5⁰C < 80%RH)
- Power Dissipation : <1W
- Decimal Points : Selectable with wire jumper
- Supply Voltage : 5V DC
- Size : 68mm x 44mm

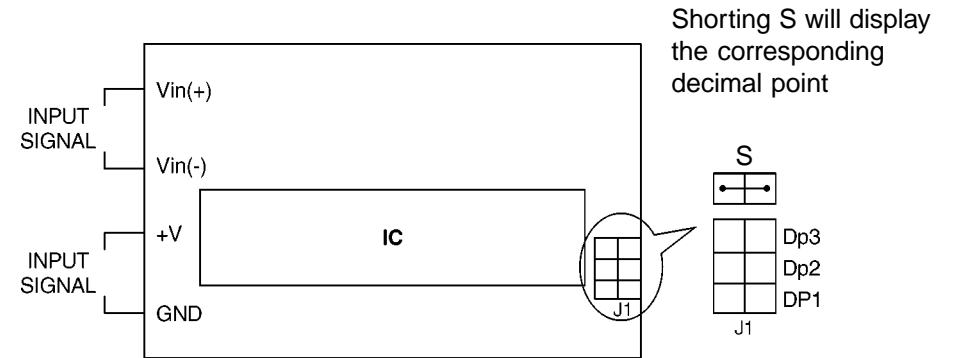
4. OPERATION :

- a) If needed, add proper voltage dividers (not included)

Max. Voltage to be measured	Proper Voltage Divider
200mV	-
2V	Disconnect wire jumper in RA RA = 1.1MΩ, RA = 9.9MΩ
20V	Disconnect wire jumper in RA RA = 100KΩ, RB = 9.99MΩ
200V	Disconnect wire jumper in RA RA = 10KΩ, RB = 9.99MΩ
500V	Disconnect wire jumper in RA RA = 1KΩ, RB = 9.999MΩ

RA and RB are ½W 0.5% Metal Film Resistors.

- b) Connect 5DC power supply to panel meter. Pay attention to the proper polarity.
- c) For range other than 200mV, input accurately ½ x Max. Voltage to be measured, (e. g. 100.0V for 200.0V range) and carefully adjust the semi-fixed resistor pot R2 to have some reading in LED display.
- d) Connect the input voltage to be measured to V in (+) and V in (-). The input voltage should be DC only.



Note :
Please ensure that when shunt is use, it must be connected on the ground / common side of the load and not on the supply side.

NOTE



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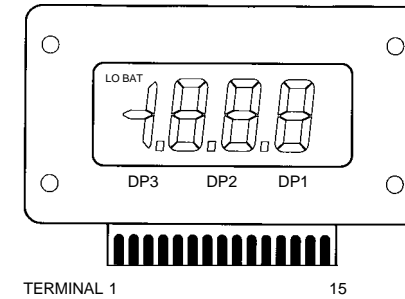
3½ Professional LED Module Model : GM035



Connection Specification

1

Terminal Pin Connection for GM035



2

Terminal	Output	Description
1	BP	Blackplane output

Terminal	Input	Description
2	V+	Positive power supply 9V - 5mA
3	V-	Negative power supply
4	DP3	Decimal point select. The decimal point will show if connected to V+ and will be off if kept floating.
5	DP2	
6	DP1	
7-13	N.C.	No Connection
14	In HI	Full scale input if "In HI" is lower than "In LO" display will show negative.
15	In LO	

Note : Power Supply 9V DC must be isolated. Ground should not be connected to input LO signal i.e. pin 3 & 15 must not be shorted.

3



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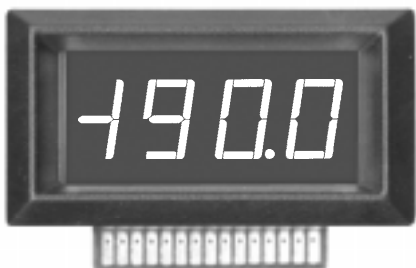
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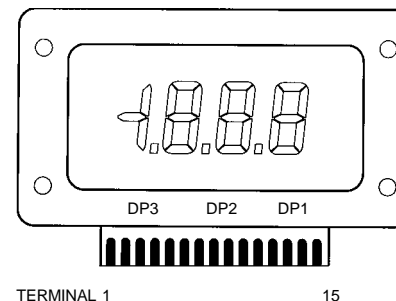
3½ Professional LCD Module Model : GM135



Connection Specification

1

Terminal Pin Connection for GM135



2

Terminal	Output	Description
1	BP	Backplane output

Terminal	Input	Description
2	V+	Positive power supply 9V - 5mA
3	V-	Negative power supply
4	DP3	Decimal point select. The decimal point will show if connected to V+ and will be off if kept floating.
5	DP2	
6	DP1	
7	DS	
8-13	N.C.	No Connection
14	In HI	Full scale input if "In HI" is lower than "In LO" display will show negative.
15	In LO	

3



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4



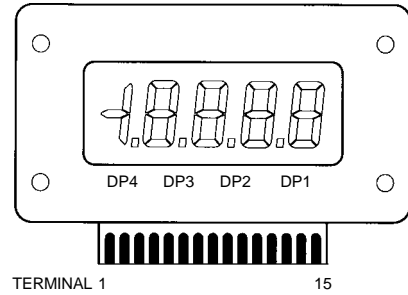
**4½ Professional
LCD Module
Model : GM045**



Connection Specification

1

**Connection Specification
for GM045**



2

Terminal	Input	Description
1	Latch/Hold	When floating, A/D converter operates in the free-run mode. When connected to V(+), the last displayed reading is held.
2	V+	Positive power supply 9V DC
3	V-	Negative power supply
4	DP4	Decimal point select. The decimal point will show if connected to V+ and will be off if floating.
5	DP3	
6	DP2	
7	DP1	
8	Continuity	
9,10	N.C.	No Connection
11	Range	When floating select 200mV full scale When connected to V(+), select 2V full scale.
12,13	N.C.	
14	In HI	200mV or 2V full scale input if "In HI" is lower than "In LO" display will show negative.
15	In LO	

Note : Power Supply 9V DC must be isolated.
Ground should not be connected to input LO signal.

3



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