

3.5 DIGITS LED DC VOLTAGE MODULE – UP5135GX

Improved from our popular item UP5135 with SMD components, and keeping all of its functions and useful features.

1. Employed a renowned industrial grade A/D IC, with its high impedance, good linearity and adjustable Voltage Reference, it is not only directly used as a precision DC Voltmeter/Current meter, but also may be become a Digital Thermometer, Hygrometer and pH meter etc. with the sensor and its linear compensation circuit.
2. Single End/Differential Input and basic range (BR) or range BRx100 may be selected by a jumper on PCB.
3. Adding an Independent Input Ground (IIG) selection. Only simply cut off a path on PCB to get it for some of the special usage need directly connect to the A/D signal input G.
4. With Test Pins and header pins for Inputs, Functions and Decimal Point (D.P.) select. The standard item range is DC 199.9mV/19.99V ; The range DC 1.999V/199.9V may be order.

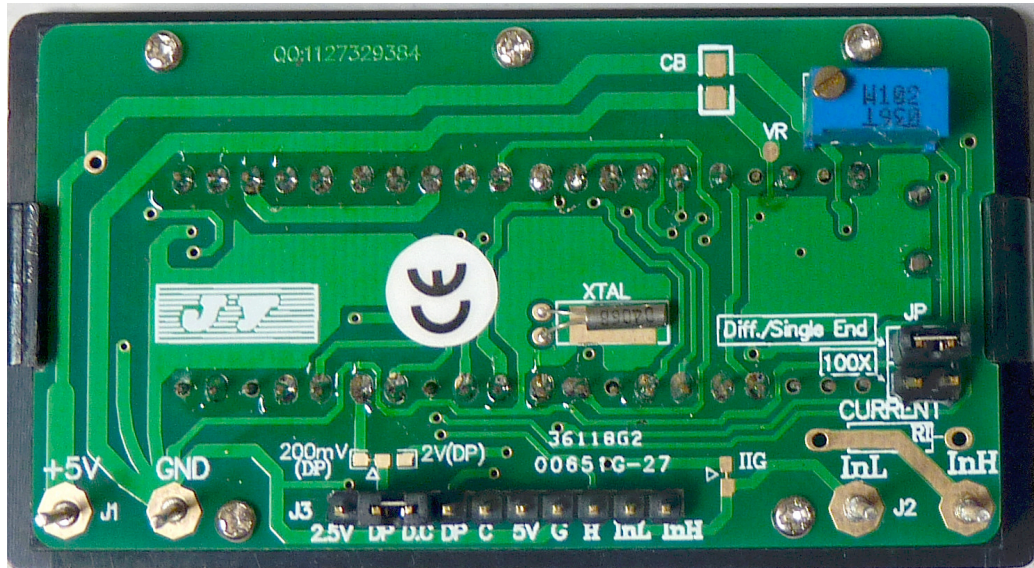
SPECIFICATIONS

POWER SUPPLY	- DC 5V, <50mA
DISPLAY	- 3 1/2 digit red LED with D.P., Digit high 14.2MM (0.56")
OVER RANGE	- Show "1" on left of the display
CONVERSION RATIO	- Approx. 2.5 time per second
FULL SCALES	- DC +/-199.9mV/19.99V or 1.999V/199.9V
INPUT IMPEDANCE	- 200mV/2V >1,000M Ω ; 20V/200V \approx 1 M Ω
ACCURACY & LINEARITY	- 0.2% of reading + 1 digit & +/- 1 digit
TEMP. COEFFICIENT	- Better than 100 PPM/ $^{\circ}$ C
OTHERS	- Auto zero/polarity & Hold reading; DC2.5V Ref. Voltage Output(1mA)
OP. TEMP. & HUMIDITY	- 0 - 50 $^{\circ}$ C & <90%
DIMENSION & WEIGHT	- 79 x 43 x 25MM & 45G
PANEL CUT-OUT/THICKNESS	- 76 X 40/1 – 3MM
CONNECTIONS	- 4P test pin for Power Supply and DC signal inputs, or from 10P single line header for P/S, DC signal inputs & D.P. select 2P(2 x 2P) for Diff/Single End Input and 100X range select

APPLICATIONS

- ◆ Direct use: DC Voltage/Current DPM
- ◆ May be Digital Meters: Thermometer, Hygrometer, pH, Bridge readout, Ohms, Power, AC voltage, AC current, Capacitance, Digital scale and Power supply readout ...

OUTLINE OF UP5135GX



4P TEST PIN DEFINITIONS (J1 & J2)

- | | |
|----------------------------|--------------------------|
| (1) Power supply: DC V+ | (2) Power supply: G |
| (3) DCV signal input: Lo * | (4) DCV signal input: Hi |

10P (1 x 10P) I/O, D.P. HEADER & HOLD PIN (J3)

- | | |
|---|----------------------------|
| (1) DC2.5V (refer to analog G) Ref. Volt. Out (<1mA) | (2) Decimal Point |
| (3) Common of D.P | (4) Decimal Point |
| (5) Analog Common (G) | (6) Power Supply: DC 5V+ |
| (7) Power Supply G | (8) Hold (tie to V+) |
| (9) DC Signal Input: Low * | (10) DC Signal Input: High |

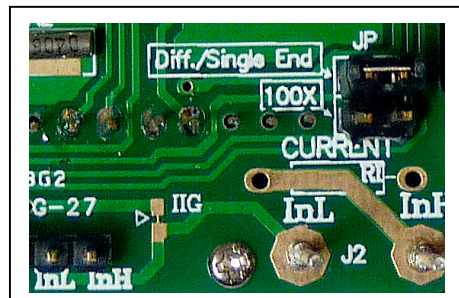
*: Normally the **InL** pin is always tie to Analog G, but If the **IIG** path is cut off, this pin (direct to A/D signal input G) will be open .

2P (2 x 2P) HEADER FOR FUNCTION SELECT (JP)

<u>PCB Marks</u>	<u>ON meaning</u>	<u>OFF meaning</u>
“Diff. / Single End”	Single End Input (default)	Differential Input
“100X”	Basic Range x 100	Basic range (default)

HOW TO GET “IIG”

- 1) Cut off the path which is beside of “IIG” on PCB.
- 2) This time the “InL” Header and Test Pin become open from Analog Common and the other side is directly to the Signal Input Ground of A/D IC.
- 3) It should not work if the “InL” pin stay at Open condition.



DVM TO DC CURRENT METER (“CURRENT R” = Rs)

- 1) The total Watt. of the Rs must be noticed, the wire round resistor is recommended.
- 2) The meter must be in 200mV range for the DC current meter.

