

**VERITEK**

## DC METERS



DC VOLTMETER (96x96)  
VIPS 91D



DC AMMETER (96x96)  
VIPS 92D



DC VOLTMETER (96x48)  
VIPS 91PD



DC AMMETER (96x48)  
VIPS 92PD

## TEST CERTIFICATE

Type : DC VOLTMETER  
DC AMMETER

Accuracy : DC Voltmeter - Class 0.5% For V  
DC Ammeter - Class 0.5% For A

Accuracy Test :  
DC Voltmeter

| VOLTAGE |         |
|---------|---------|
| 10%     | 100%    |
| +/-0.5% | +/-0.5% |
| OK      | OK      |

Accuracy Test :  
DC Ammeter

| AMPS    |         |
|---------|---------|
| 10%     | 100%    |
| +/-0.5% | +/-0.5% |
| OK      | OK      |

Note :

A) For Digital Readouts the error is Computed in Counts.

- Class 1.0 =  $\pm 1\%$  of Full Scale  $\pm 1$  Count
- Class 0.5 =  $\pm 0.5\%$  of Full Scale  $\pm 1$  Count

Tested By : Mr. Sumit

Date :

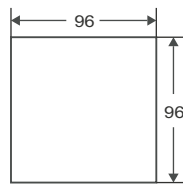
## VERITEK ENGINEERING PVT. LTD.

Plot No. 222, EL-Electronic Zone, MIDC, TTC Industrial Area,  
Mahape, Navi Mumbai - 400701, India  
Tel. : +91 86557 47987

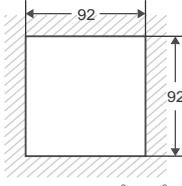
Email : sales@veritekindia.com | Web : www.veritekindia.com

## MECHANICAL DIMENSION

VIPS 91D / VIPS 92D (96x96)



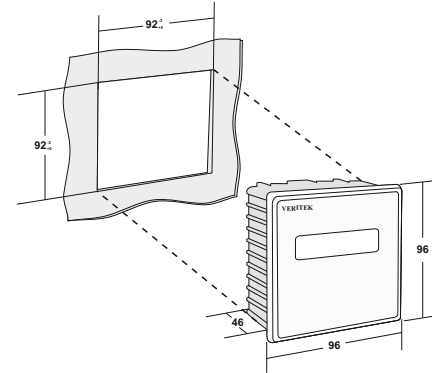
Front View



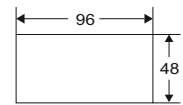
Panel Cutout  
Tolerance:  $92^{+2}_{-0} \times 92^{+2}_{-0}$



Side View



VIPS 91PD / VIPS 92PD (96x48)



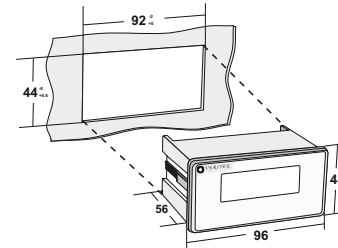
Front View



Panel Cutout  
Tolerance:  $92^{+2}_{-0} \times 44^{+0.6}_{-0}$

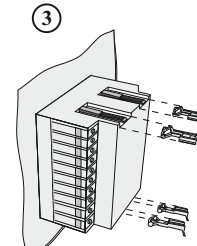
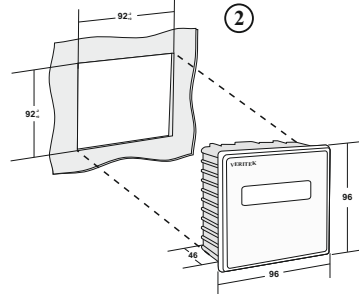
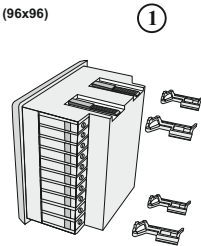


Side View

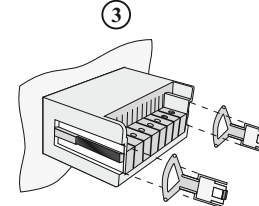
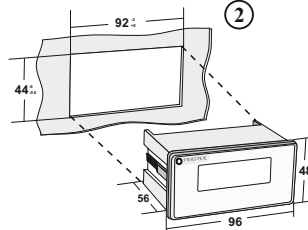
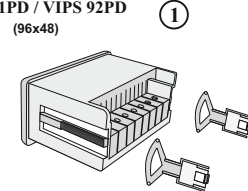


## MOUNTING ARRANGEMENT

VIPS 91D / VIPS 92D  
(96x96)



VIPS 91PD / VIPS 92PD  
(96x48)

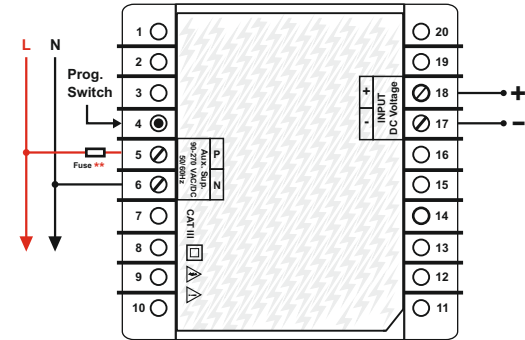


- 1) Remove the mounting clamps
- 2) Gently slide the Meter through the cut-out.
- 3) Put the mounting clamps back in the Meter.

## CONNECTION DETAILS

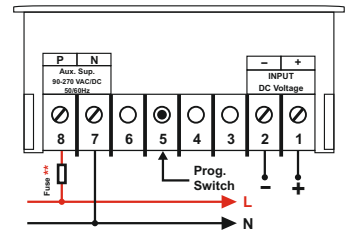
### Electrical Wiring / Connection Diagram

DC Voltmeter (96x96) - VIPS 91D



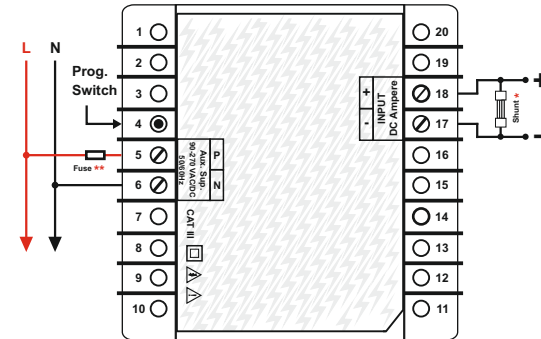
### Electrical Wiring / Connection Diagram

DC Voltmeter (96x48) - VIPS 91PD



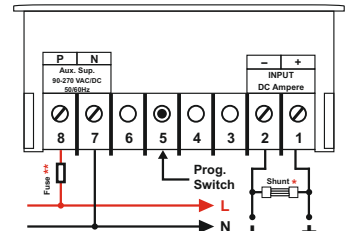
### Electrical Wiring / Connection Diagram

DC Ammeter (96x96) - VIPS 92D



### Electrical Wiring / Connection Diagram

DC Ammeter (96x48) - VIPS 92PD



\* Connect Shunt Only for Shunt Programmable Ammeter  
Shunt not provided with meter \*\* Connect Fuse = 0.25 A

## SPECIFICATION

|                     |                                                                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Input</b>        | : Voltmeter - Range 0 - 10V DC<br>Range 0 - 20V DC<br>Range 0 - 200V DC<br>Range 0 - 1000V DC                                                              |
|                     | : Ammeter - Range 0 - 5A DC<br>Range 0 - 20A DC<br>Range 75mV (Shunt Programmable)                                                                         |
| <b>Aux. Supply</b>  | : 90 - 270 VAC / DC, 50/60 Hz                                                                                                                              |
| <b>Display</b>      | : 1 Line x 4 Digit<br>{ 0.56 Inches 7 Segment LED Display }                                                                                                |
| <b>Ambient</b>      | : -10 to 55°C                                                                                                                                              |
| <b>Storage</b>      | : -20 to 75°C                                                                                                                                              |
| <b>Humidity</b>     | : < 95% Non-Condensing                                                                                                                                     |
| <b>Weight</b>       | : Voltmeter - 120 gms<br>Ammeter - 150 gms                                                                                                                 |
| <b>Dimesions</b>    | : 96 x 96 x 46 mm (L x W x D)<br>96 x 48 x 56 mm (L x W x D)                                                                                               |
| <b>Panel Cutout</b> | : (92 <sup>+2</sup> <sub>-0</sub> )mm x (92 <sup>+2</sup> <sub>-0</sub> )mm<br>(92 <sup>+2</sup> <sub>-0</sub> )mm x (44 <sup>+0</sup> <sub>-0.6</sub> )mm |
| <b>Mounting</b>     | : Flush Mounting with Side Clamps.                                                                                                                         |
| <b>Protection</b>   |                                                                                                                                                            |
| <b>Degree</b>       | : IP20 (Terminals),<br>: IP54 (Front of housing)                                                                                                           |

## MEASUREMENT RANGES

| Description                                                                                                                                       | DC VOLTMETER                                                                                                       | DC AMMETER                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Volts :<br>VIPS 91D-10V<br>VIPS 91PD-10V<br>VIPS 91D-20V<br>VIPS 91PD-20V<br>VIPS 91D-200V<br>VIPS 91PD-200V<br>VIPS 91D-1000V<br>VIPS 91PD-1000V | 0 - 10 VDC<br>0 - 10 VDC<br>0 - 20 VDC<br>0 - 20 VDC<br>0 - 200 VDC<br>0 - 200 VDC<br>0 - 1000 VDC<br>0 - 1000 VDC | —                                                                                                              |
| Amps :<br>VIPS 92D-5A<br>VIPS 92PD-5A<br>VIPS 92D-20A<br>VIPS 92PD-20A<br>VIPS 92D-75mV<br><br>VIPS 92PD-75mV                                     | —                                                                                                                  | 2% to 100%<br>2% to 100%<br>2% to 100%<br>2% to 100%<br>2% to 100% of Shunt Value<br>2% to 100% of Shunt Value |
| Display Update                                                                                                                                    | 1 Sec                                                                                                              |                                                                                                                |
| Resolution                                                                                                                                        | Auto Ranging                                                                                                       |                                                                                                                |
| Accuracy                                                                                                                                          | ±0.5% of full scale for voltage                                                                                    | ±0.5% of full scale for Current                                                                                |

## PROGRAMMING - (only for DC Ammeter)

- 1) Press the push button for 3 seconds behind the meter (long press) at slot no. 4 (96x96), 5 (96x48) to enter into programming mode.
- 2) The following programming menu are available :

| Menu | Symbol      | Discription |
|------|-------------|-------------|
| 1    | <i>SHnt</i> | Shunt       |

- a) To move from one menu to another, short press push key.
- b) To enter into a particular menu, long press for 3 seconds.

## MENU 1 : SHUNT VALUE

When you enter the menu, the following options are available :

| Sr. No | Shunt Value | Sr. No | Shunt Value |
|--------|-------------|--------|-------------|
| 1      | 2           | 19     | 500         |
| 2      | 5           | 20     | 600         |
| 3      | 10          | 21     | 750         |
| 4      | 15          | 22     | 800         |
| 5      | 20          | 23     | 1000        |
| 6      | 25          | 24     | 1200        |
| 7      | 30          | 25     | 1500        |
| 8      | 40          | 26     | 2000        |
| 9      | 50          | 27     | 2500        |
| 10     | 60          | 28     | 3000        |
| 11     | 75          | 29     | 3200        |
| 12     | 100         | 30     | 4000        |
| 13     | 125         | 31     | 5000        |
| 14     | 150         | 32     | 6000        |
| 15     | 200         | 33     | 7500        |
| 16     | 250         | 34     | 10000       |
| 17     | 300         | 35     | 12000       |
| 18     | 400         | 36     | 15000       |

*ESC*

To Escape Page

- 1) Long press the push key to set the particular Shunt ratio. "*SRUE*" appears.
- 2) Short press the push key to move from one option to another.

## MENU 2 : ESCAPE PROGRAMMING

Long press escape to escape programming mode "*done*" appears as conformation.

**Note : If the meter is inactive in programming mode for 30 seconds, it will come out of programming mode.**

## FEATURES

- (1) State of Art Micro controller Based Design
- (2) 1 Line 4 Digit Ultra Bright LED Display
- (3) Auto Ranging
- (4) Universal Aux. Supply
- (5) Site Programmable Shunt (Ammeter)

## SAFETY PRECAUTIONS:

All safety related conditions, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.

If there is physical damage to the unit then do not use it.

Read complete instruction prior to installation and operation of the unit.

## WIRING GUIDELINES :

### Warning

- 1) To Prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
- 2) Wiring shall be done strictly according to the terminal layout with shortest connection. Confirm that all connection are correct.

### CAUTION :



- 1) To ensure the safe operation of unit, check the wiring and connections.