

# 1 PHASE VOLTMETER



## FEATURES

State of Art Microcontroller Based Design

1 Line 4 Digit ultra bright LED display

Site programmable PT ratio

True RMS measurement

Harmonics THDV

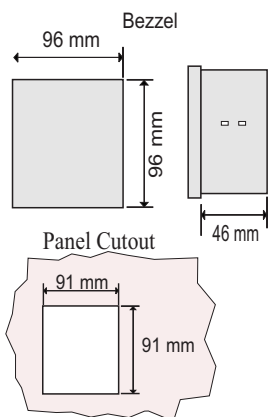
Auto Ranging

Universal Aux. Supply

## PARAMETERS

- ✓ Volts : L-L or L-N
- ✓ Frequency : System
- ✓ THDV

## MECHANICAL DIMENSION



## DISPLAY PAGES

There are two modes of operation :

- 1) Fixed Mode : In this mode the display shows voltage.
- 2) Auto Scroll Mode : In this mode the display shows the parameters in the below fashion.

Page	Symbol	Parameter
1	$u_{oLL}$	Voltage
2	$FrE9$	Frequency
3	$uLhd$	Harmonics Voltage THDV

**Note : For programming there is a push button behind the meter at slot no. 4**

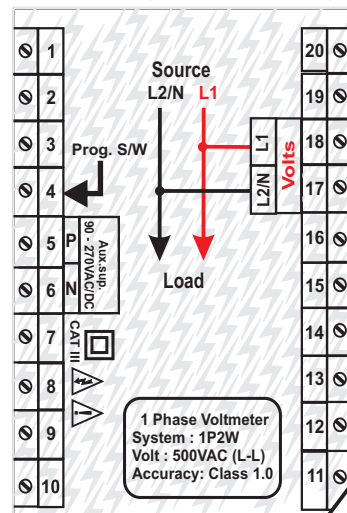
## SPECIFICATIONS

Input	: 1Phase 2wire
Volts	: Range 10-500v
Burden	: 0.2 VA max. per input for Voltage 3 VA max. on Aux. Supply
Aux. Supply	: 90 - 270 VAC / DC
Display	: 1 Line x 4 Digit (0.56 Inches 7 Segment LED Display)
Computation	: True RMS
Frequency	: 45 Hz - 65 Hz.
Ambient	: -10 to 55°C
Storage	: -20 to 75°C
Humidity	: < 95 % Non-condensing
Weight	: 120gms
Dimensions	: 96 X 96 X 46 mm ( L x W x D )
Panel Cutout	: ( 90 <sup>+1</sup> )mm X ( 90 <sup>+1</sup> ) mm
Mounting	: Flush Mounting with side clamps.

## Measurement range :

Volts	: 10 - 500VAC L-L
Display update:	1Sec
Hz	: 45.0 to 65.0HZ
Resolution	: Auto ranging
Accuracy	: ±0.5% of full scale for voltage
Frequency	: ± 0.1% for Hz

## Electrical Wiring / Connection Diagram



## DISPLAY PAGES

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

Menu	Symbol	Description
1	$PLPr$	PT Ratio
2	$ScRL$	Select Scroll
3	$USPd$	Scroll Speed
4	$ESc$	Escape

- 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 : PT Ratio

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

Option	Explanation
1	No PT
30	3.3KV/110V
60	6.6KV/110V
100	11KV/110V
200	22KV/110V
300	33KV/110V
600	66KV/110V
1200	132KV/110V
$ESc$	To Escape page

- 1) Long press the push key, to set option of particular PT ratio.  $ESc$  appears.
- 2) Short press the push key to move from one option to another.

## Menu 2 : Select Scroll

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

Option	Explanation
$dS$	Disables scrolling enters fixed mode
$En$	Enables scrolling enters auto scroll mode
$ESc$	To escape page

- 1) Long press the push key to set particular option for scroll.  $ESc$  appears.
- 2) Short press the push key to move from one option to another.

## Menu 3 : Scroll Speed

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

Option	Explanation
$AUG$	Average
$FRSt$	Fast
$uFRS$	Very Fast
$ESc$	To Escape page
$uSLo$	Very Slow
$SLo$	Slow

- 1) Long press the push key to set scroll speed ratio.  $ESc$  appears.
- 2) Short press the push key to move from one option to another.

## Menu 4 : Escape Programming

Long press escape to escape programming mode  $ESc$  appears as confirmation.

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

## Safety Precautions :

All safety related codifications, 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 :

- 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.