



**DIGITAL
VOLTMETER
AMPERMETER**

*EPA
EPV*



True RMS



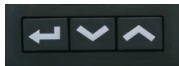
USER GUIDE

Electrical connection and Button functions



You can see electrical connection diagram on the last page. On the devices there are two connectors. One of them is for power supply, the other one is for measurement input. If you make this connection to the relay input or current measurement input you can give big damage to the devices. For this reason first connect the power supply and see '0.000' value. When device is energized do not change connectors. When you de-energized the device you can change connections.



Buttons :


There are three buttons on the device. These buttons are used to enter SET value and for reading data from memory. Standard ammeter and voltmeter after reset process hold the biggest and the smallest value on the memory.








Relay Functions

2 Relay models of ammeters and voltmeters are available. Functions are described for relays. These functions are explained below. Press  and  buttons at the same time to enter function adjustment.

 DOWN button shows the smallest value  UP button shows the biggest value.

 ENTER button is used for reset and for clearing data on the memory (the smallest and the biggest value). You see on the display reset.

Entering fixed values :

To change device SET values you should press  and  buttons at the same time. On the ammeter display you see 'ct', on the voltmeter display you see 'vt'. 'Ct' is current transformer ratio, 'vt' is voltage transformer ratio. Use  and  buttons to enter value and press  button. When you use current transformer or voltage transformer you should enter the right value. For example: If you use 600/5 current transformer 'ct' value is 120. On the direct connection (without current transformer) you should enter 1 for 'ct' value.

LO: Lower Limit Value:

If the measurement value lower than this value relay output function is active.

HI: Upper Limit Values:

If measurement value higher than this value or equal , relay output is active

ST: Relay Operating Delay:

It determines when the relay function is activated according to power reaching time to the device (Waiting time)

DT: Decision Delay:

Time values are entered here if a status appears which requires a function to work.

PL: The time for the towed relay:



If Relay desired to be towed for a short time during each reading , a non-zero value is entered here. This value is the time required for the relay remains towed in milliseconds

Zr: Zero-value function:

In general, the current is zero when the system is not running. LO function is not required to work. However, in the systems that can be considered as an error, you may need to see zero amps such as low flow . In this case, if the zero is made 1, ampere value of 0 is processed by accepting it as the low current value.

Hr: The sealing function

If the user wanted it to remain towed even the relay current turns to normal and when the relay output is given, this function is entered as a value of 1.

Thus, the relay remains towed until the energy goes or you press  up and down  buttons.

Sr: Limit adjustment function

This function allows you to make settings by comparing the highest value and HI value using measured values in a certain period of time.

If the highest value you read is lower than the LO, LO relay, if it is bigger than HI value, HI relay is energized.

It can be used Inrush current strokes. For example, welding machine current, such as on-off tests

HZ: Reading speed function

It is a reading speed setting function various the reading speed of the base can be increased or reduced according to the various applications.

Thus, slow or reflex operation of the device can be achieved. The value entered here, shows how many reads the device does within 10 seconds. If 1 is entered, the display rate is 1 in 10 seconds.

Default value is 1, but can be increased up to 50. So, reading speed can be increased. up to 5 seconds.

Effect on other functions: If PL adjustment to be made a non-zero value, should not be entered in the accelerated system. For example, the relay operates continuously towed in a system that makes 5 readings per second, if it is entered close or higher than 200 milliseconds.

Voltmeters

You can measure phase-neutral voltages between 0 and 500 VAC with EPM series voltmeters. Device has three digit display. When you use proper voltage transformer you can measure Up to 999V. If you want kV Measurement you should inform that on your orders. Ampermeters displays, Which is programmed to measure to kV , shows point between values.

Ampermeter :

EPA series ampermeter Measures AC current of any Line. You can use with current Transformer (you should enter Current transformer ratio). Device with 4 digit display can measure Up to 9.999 A. (you should use proper current transformer)

Direct Ampermeters

On this models with own current transformer device can measure up to 50 A. And measurement is more accurate comparing the other models.

50A.: ePA750 series, 72 case and Measure up to 50 Amper.

Note: Ampermeter with case 96, ePA920 can measure up to 200 A. Floating point of current transformer



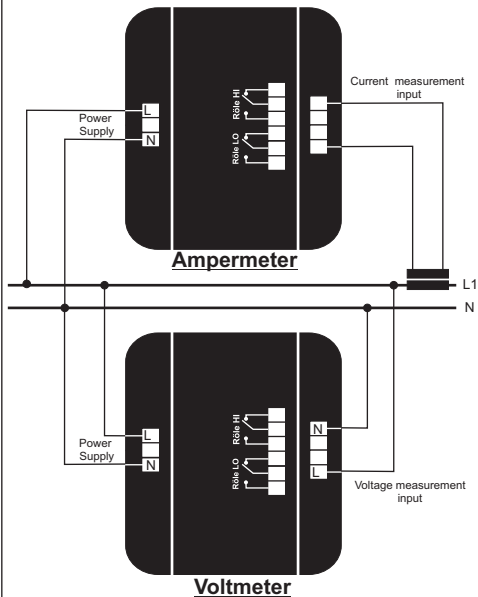
EPV SERIES

Model	Case	Measmnt.limits	Additional features
EPV 72	72X72	0...500V	
EPV 96	96X96	0...500V	
EPV 96R	96X96	0...500V	2 Relay

EPA SERIES

Model	Case	Measmnt.limits	Additional features
EPA 72	72X72	0..9999A	
EPA72C60	72X72	0...60A (AC)	Transformer
EPA96	96X96	0..9999A	
EPA96R	96X96	0..9999A	2 Relay
EPA96C60	96X96	0...60A (AC)	Transformer
EPA96 C60R	96X96	0...60A (AC)	Transformer 2 Relay
EPA96C200	96X96	0..200A (AC)	Transformer
EPA96C200R	96X96	0...200A (AC)	Transformer 2 Relay
EPA96 60MVR	96X96	60mV R.çıkışlı	2 Relay

Connection diagram



Note : Relay output is option.

Dimensions

