AMMETER
EPM–4D/4C

EPM–4D (Ammeter with Demand): EPM-4D is designed to measure RMS value of AC current which flows from the line and saving the instant and average demands. The current transformer ratio can be set between 5/5A and 10000/5A by the buttons on the panel.

EPM–4C(Ammeter with Setpoint): EPM-4C measures the RMS value of AC current which flows from the line. If the measured AC current is over the high setpoint or it is under the low setpoint, output relay is switched on at the end of adjusted time delay. Also, it includes all functions of EPM-4D.

* **Important Notice:** The secondary value of current transformer must be limited at 5A.

Demand Time (dEt) : Device records measured demand ane maximum demand values. Demand is the average current value measured in demand time. Maximum demand is the maximum average current value measured in demand time. Maximum demand value remains stored, even if the power supply is off and demand value becomes "0" (zero).

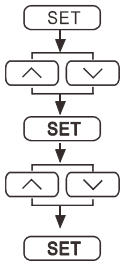
Setpoint (SP H ve SP L): When the AC current which flows through the device is over the high setpoint value or it is under the low setpoint value, the output relay is switched on in order to generate an error signal at the end of programmed delay time. If the AC current value returns within preset limits, before the end of the delay time, the relay resets itself and no tripping occurs.

Latch Function (LAtC) : Latch function is used to select the output relay operation mode. Either "OF" or "On" position may be selected.

- At position "OF": If the current value returns to preset limits, output relay is switched off.
- At position "ON": Even if the current value returns to preset limits, output relay remains switched on and switches off only by pressing the "Set" button.

Instant Tripping (trP) : If the AC current value is over the1.5 times of setting value or it is under the 0.5 times of setting value, the output relay is switched on without any delay time. This function is user-selectable.

Setting of Current Transformer Ratio (For EPM–4C and 4D)



Press SET button for 3 sec . → Ctr

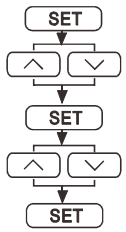
Press *UP or DOWN* button until *Ctr* is displayed. → Ctr

Press SET button. → 0005

Press *Up or DOWN* button until requested value is displayed. (If buttons are pressed continuously, displayed value is changed quickly).

Press SET button to save.

Setting of Demand Time (For EPM–4C and 4D)



Pre ss SET button for 3 sec . → Ctr

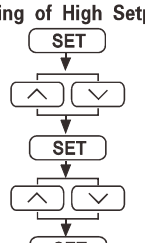
Pr ess *UP or DOWN* button until *dEt* is displayed. → dEt

Press SET button. → 0015

Press *Up or DOWN* button until requested value is displayed. (If buttons are pressed continuously, displayed value is changed quickly). → 0020

Press SET button to save.

Setting of High Setpoint Value (For EPM–4C)



Press SET button for 3 sec. → Ctr

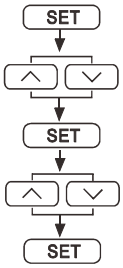
Pr ess *UP or DOWN* button until *SP H* is displayed. → SP H

Press SET button. → 2.500

Press *Up or DOWN* button until requested value is displayed. (If buttons are pressed continuously, displayed value is changed quickly). → 2.750

Press SET button to save.

Setting of Low Setpoint Value (For EPM–4C)



Press SET button for 3 sec. → Ctr

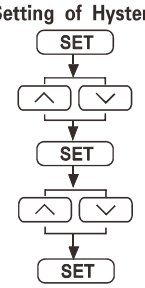
Press *UP or DOWN* button until *SP L* is displayed. → SP L

Press SET button. → 2.500

Press *Up or DOWN* button until requested value is displayed. (If buttons are pressed continuously, displayed value is changed quickly). → 2.250

Press SET button to save.

Setting of Hysteresis Value (For EPM–4C)



Pre ss SET button for 3 sec. → Ctr

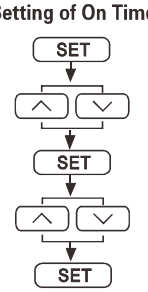
Press *UP or DOWN* button until *HYS* is displayed. → HYS

Press SET button. → 0.100

Press *Up or DOWN* button until requested value is displayed. (If buttons are pressed continuously, displayed value is changed quickly). → 0.200

Press SET button to save.

Setting of On Time Value (For EPM–4C)



Pre ss SET button for 3 sec. → Ctr

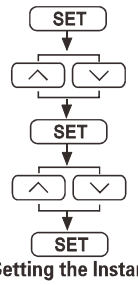
Press *UP or DOWN* button until *On t* is displayed. → On t

Press SET button. → 010.0

Press *Up or DOWN* button until requested value is displayed. (If buttons are pressed continuously, displayed value is changed quickly). → 015.0

Press SET button to save.

Setting of Off Time Value (For EPM–4C)



Pre ss SET button for 3 sec. → Ctr

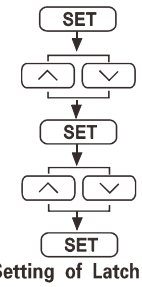
Press *UP or DOWN* button until *OF t* is displayed. → OF t

Press SET button. → 010.0

Press *Up or DOWN* button until requested value is displayed. (If buttons are pressed continuously, displayed value is changed quickly). → 015.0

Press SET button to save.

Setting the Instant Tripping Function (For EPM–4C)



Press SET button for 3 sec. → Ctr

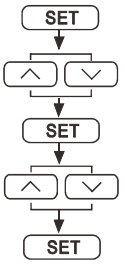
Press *UP or DOWN* button until *trP* is displayed. → trP

Press SET button. → On

Press *Up or DOWN* button until requested value is displayed. → OF

Press SET button to save..

Setting of Latch Function (For EPM–4 C)



Pre ss SET button for 3 sec. → Ctr

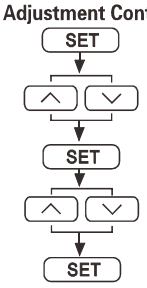
Press *UP or DOWN* button until *LAtC* is displayed. → LAtC

Press SET button. → On

Press *Up or DOWN* button until requested value is displayed. → OF

Press SET button to save.

Adjustment Contact Situation (For EPM–4C)



Pre ss SET button for 3 sec. → Ctr

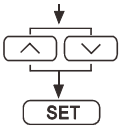
Press *UP or DOWN* button until *Out* is displayed. → Out

Press SET button. → nC

Press *Up or DOWN* button until requested value is displayed. → nO

Press SET button to save.

Escaping the Set Menu (For EPM–4C and 4D)



If you do not request to change any adjustment in the menu;

Press *UP or DOWN* button until *ESC* is displayed. → ESC / 0000

Press SET button.

Displaying of Demand (For EPM–4C and 4D)

Press and hold the *DOWN* button to see the demand value.

Displaying of Max. Demand (For EPM–4C and 4D)

Press and hold the *Up* button to see the max. demand value

Deleting the Demand Values (For EP M–4C and 4D)

Press *Up* and *DOWN* buttons at the same time

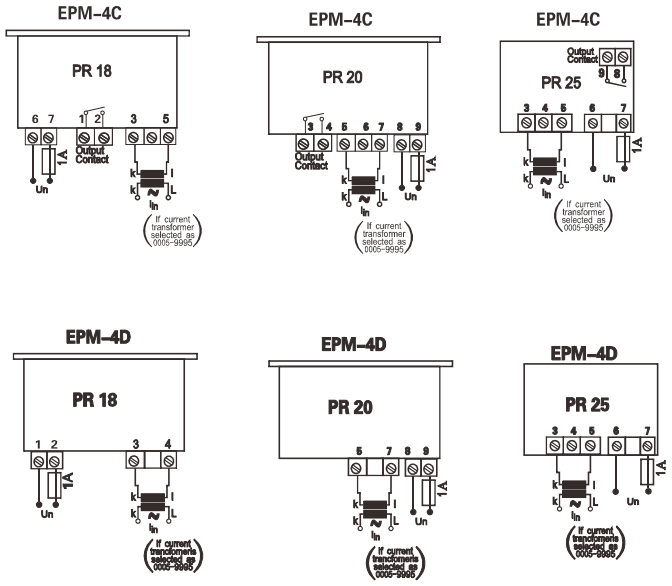
AMMETER
EPM–4D/EPM–4C

PRECAUTIONS FOR INSTALLATION AND SAFE USE

Failure to follow below instructions will result in death or serious injury.

- **Disconnect all power before working on equipment.**
- **When the device is connected to the network, do not remove the front panel.**
- **Do not try to clean the device with solvent or the like, Only clean the device with a dried cloth.**
- **Verify correct terminal connections when wiring.**
- **Electrical equipment should be serviced only by your compedent seller. No responsibility is assured by the manufacturer or any of its subsidiaries for any consequences arising out of the use of this material.**
- **Only for rack panel mounting.**

Connection Diagrams



Waming :

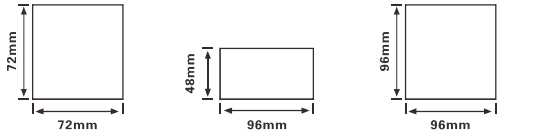
a) A switch or circuit breaker must be connected between the network and the auxiliary supply input of device.
b) Connected switch or circuit breaker must be in close proximity to the device.
c) Connected switch or circuit breaker must be marked as the disconnecting device for the equipment.
d) The type of the used fuse must be FF type and the current of the used fuse must be 1A.
e) No need of a vantilator in the installation area
f) Practical user manual must be put on the panel.

Technical Data

Operating Voltage (U_n),*	
Operating Range (△U)	: AC220V±10%
Operating Frequency (f)	: 45–65Hz
Accuracy	: 0. 5% [(10%–100%) full scale]
Measuring Input (I_{in})	: 0, 05–5, 5A
Current Transformer Ratio (Ct)	: 5...9995 / 5 A
Power Consumption (P_{cons})	: < 4 VA
Burden	: < 1 VA
Output Contact	: 5A, 250V, 1250VA (Resistive) (for EPM–4C)
Ins. Tripping	: >1, 5 × SPH or <0. 5 × SPL (for EPM–4C)
Hysteresis	: 0–0. 5 × Full scale (for EPM–4C)
Delay Times	**:0,0–999.9 sec,(for EPM–4C)**
Demand Time (Average)	**:1–60min.**
Enclosure	: Non–flammable
Equipment Protection	: Double Insulation (□) Measuring CategoryIII
Ambient Temperature	**: –5°C ; + 50 °C**
Installations	**:** Flush mounting with rear terminals

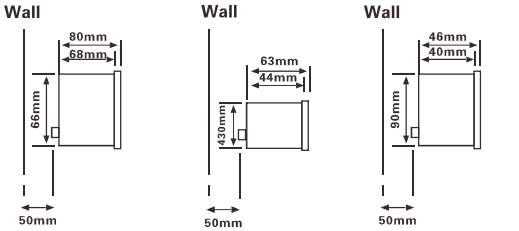
★ **Please check the device label for proper value.**
★ **Different supply voltages are adjustable upon request.**

Dimensions



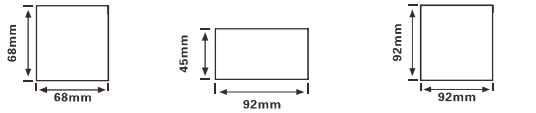
TYPE PR 18 (72x72) TYPE PR 20 (48x96) TYPE PR 25 (96x96)

The area Measurements on The Control Panel



TYPE PR 18 (72x72) TYPE PR 20 (48x96) TYPE PR 25 (96x96)

Control Panel Cut Out



TYPE PR 18 (72x72) TYPE PR 20 (48x96) TYPE PR 25 (96x96)

Factory Settings:

Ctr = 0005	SPL = 0.250	OFt = 010.0	trP = OF
dEt = 0015	HYS = 0.100		LAtC = OF
SPH = 4.000	On t = 010.0		Out = nO

CE