PROGRAMMABLE AMP. HOUR METER MODEL 810AH

INTRODUCTION:

This micro-controller based programmable Amp-Hour Meter is designed to integrate and display DC current flowing respect to time. It becomes a measure of the total current energy.

A preset limit of this integrated current can be pre-programmed and when the limit is reached, a relay is switched ON to trigger an alarm. A 6 digit display for Ampere Hour and a 4 digit display for Current is provided.

In addition, an internal limit of 10.5V is preset so that a 12V Battery can be tested for its' A-H. As soon as the 12V battery discharges to a voltage below10.5V the Amp-Hour meter stops automatically.

The instrument reads current also. For different ranges, the equipment can be user-programmed for different shunt resistances.

APPLICATIONS:

- Maintaining a preset constant thickness in Electroplating irrespective of fluctuations in voltage, current etc., since the plating thickness is proportional to the integrated current.
- Checking the A-H of a charged 12V battery.
- Displaying high Direct Current using a shunt calibrated for 75mV.

SPECIFICATIONS:

1. Display   : 6 RED 7 Segment LEDs of 0.56" character height. 4 Digit Green display for Current

2. Current   : Max 9999 Amps using a shunt of current/75mV. User programmed.

3. Amp-Hour   : Max 999999 A-H for each preset cycle.

4. Amp-Min   : Max 999999 A-Min for each preset cycle

5. Max shunt   : Max value of 9999 Amp corresponding to 75mV

6. Totaliser   : 6 Digits for Amp-Hour or Amp-Min. i.e. 99,99,99

7. Limit   : Up to 999999 AH or Amin. setting

8. Relay Contact : One NO-P-NC of 5 Amp rating

9. Trigger start   : By pressing front panel switch or closing a rear external contact.

10. Battery   : Not required. All programmed values and readings including A-H stored in EEPROM

11. Lock   : Electronic lock for calibration

12. Low Voltage   : Set at 10.5V internally. For testing 12V Battery AH

13. Supply   : 220V AC $\pm$ 10%

14. Size   : Front Fascia: 96mm x 96mm. Depth: 50mm.

15. Weight   : 800 grams

16. Mounting   : Panel mounted

17. Resolution   : 0.1AH or 0.1AMin user selectable through front panel

SETTING UP THE INSTRUMENT

Set Limit of Ampere Hr/Min
- Press the Mode switch. Lower Display shows 'Set' while upper display shows Set Limit
- Relay ON for Ampere Hour/Minute value < Set Limit
- Relay OFF for Ampere Hour/Minute value > Set Limit
- Use Increment and Decrement switches to make changes. The range is 0-999999
- After changes have been made, press the Mode switch to save changes and go to next setting

Totalized Ampere Hr/Min Value
- After previous setting, Lower display shows '**Totl**' while upper display shows Totalized AH/Amin value.
- This represents a totalized/cumulative AH/Min value. It is a cumulative AH/Amin value of AH/Amin of every cycle. Usually after every cycle, when AH reaches Set Limit, pressing reset switch resets the AH/Amin value. However, the Totalized AH/Min value does not reset.
- To reset this Totalized Value, press the Reset switch when Totalized value is displayed.
- After viewing this value, press Mode switch to go to next setting