## 38739 ME Battery Monitor, 12V

Battery Monitor Module with Adjustable Under & Over Voltage points. Separate Power & Measurement Inputs. (Common -) Multi Function Output Relay programmable modes Supply Voltage: 12VDC Measurement Input : 10-14V Adjustable Upper/Lower Limit Resolution: 0.1V Relay SPST-NO Isolated contacts 10A @ 30VDC/125VAC Refresh Rate: 300mS Operating Temperature: -40°C to +85°C Input reverse polarity protection: YES L: 56mm (2-3/16") W: 44mm (1-3/4") H: 20mm (3/4") WT: .06



## **General Setting of High & Low Limits**

1. In the non-setting (Normal) Mode, short press the SET Key to cycle through the following display of present values. Modes: Working (Normal) Mode (F03) ->Lower voltage limit (F02) -> Upper voltage limit (F01) -> Calibration (F04).

2: In non-setting Mode, press and hold the SET Key for 2 seconds to enter the parameter setting Mode; the display shows F01, press the + or - Keys to select the parameter to be set, F01 (upper limit voltage), F02 (Lower limit voltage), F03 Working mode, F04 voltage calibration value. (More On Calibration to Follow)

3: After selecting the parameters to be set, short press the SET Key to enter the parameter setting state, press the + or - Keys to adjust, when the Lower limit voltage is greater than the Upper limit voltage, the display will show **Err** for 1 second to prompt the user. When the Lower limit voltage is equal to the upper limit voltage, the relay output function is turned off.

4: After setting each parameter value, short press the SET Key to return to the parameter list.

5: After setting the parameters, press and hold SET Key for 2 seconds to exit and save the values.

6: In non-setting Mode, press and hold the SET <u>and</u> + Keys simultaneously for 2 seconds to restore to factory settings.

7: Long press - Key to the LED Display Turn Off or On. (energy saving mode)



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## **Alarm Relay Output Functions**

Please note that before setting this parameter, please set the Upper Limit Voltage as needed.

In the F03 non-setting (Normal) Mode

<u>Press and Hold</u> SET Key to select the F03 working mode, use + and - to select the required Relay function, then press and hold SET to save and exit.

H-1: Charging Monitoring: when the monitored voltage is lower than the Lower Limit Voltage, the relay is energized, and when it is higher than the Upper Limit Voltage, the relay is disconnected.

H-2: Discharge Monitoring: when the monitored voltage is higher than the Upper Limit Voltage, the relay is energized; when the voltage is lower than the Lower Limit Voltage, the relay is disconnected.

H-3: Outside the Range: the relay is disconnected when the monitored voltage is between the Upper Limit Voltage and the Lower Limit Voltage. The relay is closed in other states.

H-4: Interval Energized: When the monitored voltage is between the Upper Limit Voltage and the Lower Limit Voltage, the relay is energized. The relay is disconnected in other states.

H-5: Fixed-point Monitoring: When the monitored voltage is higher than the Lower Limit Voltage, the relay is energized, and when it is lower than the Lower Limit Voltage. The relay is disconnected.

H-6: Fixed-point Self-locking Monitoring: When the monitored voltage is higher than the Lower Limit Voltage. The relay is energized and remains energized until manual intervention or power failure.

H-7: Fixed-point Pulse Monitoring: When the monitored voltage is equal to the lower limit voltage (±0.1V), the relay outputs a Pulse signal.

#### Calibration

Calibration Mode: long press SET Key to enter Setting Mode (when not in setting Mode), + or - to select F04. Short press SET Key.

After setting the correction value: press and hold SET Key for 2 seconds to exit and save.

The default is "0" error, if you need to set it, adjust it as needed.

Press + or - as required to Add or Subtract displayed value

For example 1: if the actual input voltage is 12.5V, the module displays 12.4V.

You can set the error to 0.1V here, i.e. 12.4+0.1=12.5

For example 2: if the actual input voltage is 12.5V, the module displays 12.6V.

You can set the error to -0.1V, i.e. 12.6-0.1=12.5.



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