

## BATTERY VOLTAGE MONITORING RELAY

Type:  
BMCA low  
BMCD high & low

### FEATURES

- Supply from the battery
- Programmable voltage 12V, 24V, 48V & 110V
- LEDs indicate the state of the input
- Programmable OFF delay 0-10 sec or 0-100 sec
- Programmable Latch for over voltage

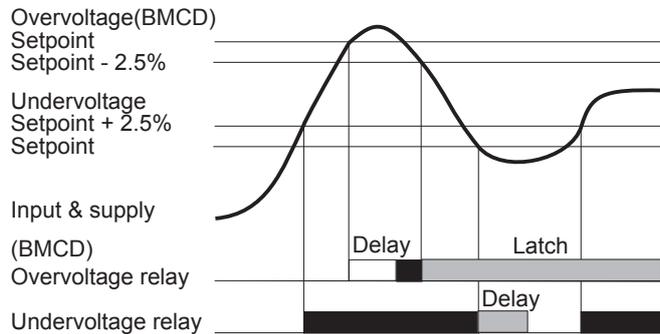
### Description:

The BMCA battery voltage relay is designed to measure battery voltage for under voltage. The BMCD battery voltage relay is designed to measure battery voltage for under voltage and over voltage. The relays are Programmable for 12V, 24V, 48V or 110V battery systems, can be set by DIP switch.

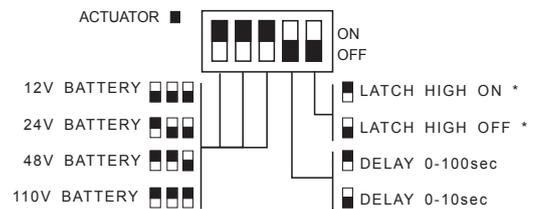
### Application:

Avoiding deep discharging, or overcharging in UPS, stationary battery equipment and mobile battery equipment. Alarm function in case of faulty batteries or charges.

### FUNCTION DIAGRAM



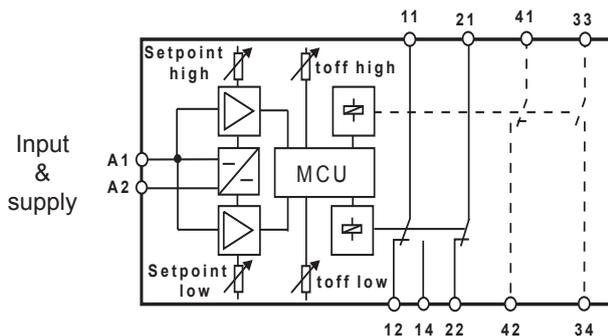
### PROGRAMMABLE FEATURES



\* LATCH ONLY ON TYPE BMCD

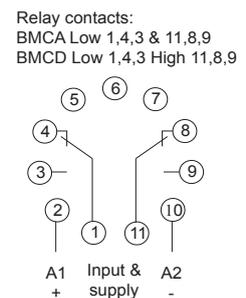
### CONNECTION DIAGRAM

Rail mounting



Relay contacts:  
BMCA Low: 11,12,14 & 21,22  
BMCD Low: 11,12,14 & 21,22  
BMCD High: 41,42 & 33,34

Socket mounting



## SPECIFICATIONS

### INPUT

|              |  |
|--------------|--|
| BMCA & BMCD  | 12 V, range int. adjustable<br>Under voltage from 9 to 12 V<br>Over voltage from 12 to 15 V<br>Precision 12V ± 0.1 V       |
|              | 24 V, range int. adjustable<br>Under voltage from 18 to 24 V<br>Over voltage from 24 to 30 V<br>Precision 24V ± 0.2 V      |
|              | 48 V, range int. adjustable<br>Under voltage from 36 to 48 V<br>Over voltage from 48 to 60 V<br>Precision 48V ± 0.4 V      |
|              | 110 V, range int. adjustable<br>Under voltage from 83 to 110 V<br>Over voltage from 110 to 137 V<br>Precision 110V ± 0.9 V |
| Differential | Under voltage<br>Approx. setpoint + 2.5 %  |
|              | Over voltage<br>Approx. setpoint - 2.5 %   |

### PERFORMANCE PARAMETERS

|                     |                  |
|---------------------|------------------|
| TIMING              |                  |
| Time range accuracy | ±5 %             |
| ELECTRICAL          |                  |
| Repeat accuracy     | < 0.5 %          |
| Temp. dependence    | Typ ±0.02 % / °C |

### OUTPUT

|                 |                              |
|-----------------|------------------------------|
| Under voltage   | Relay, 1 C/O and 1 N/C, AgNi |
| Over voltage    | Relay, 1 N/O and 1 N/C, AgNi |
| Contact rating  | 6 A, 250 VAC, 1500 W         |
| Mechanical life | 30 Million operations        |

### SUPPLY

|                   |   |
|-------------------|---|
|                   | DC voltage, supply and input<br>internal connected<br>From 8 to 180 V |
| Power consumption | 2,5 W   |

### GENERAL

|                         |                              |          |
|-------------------------|------------------------------|----------|
| Temperature range       | - 25 °C to + 55 °C           |          |
| Humidity                | Up to 90 % RH non-condensing |          |
| Dielectric test voltage | Coil to relay contacts       | 4000 VAC |
|                         | Pole to pole                 | 2500 VAC |
| Weight                  | 0.14 kg                      |          |



|                              |                             |  |
|------------------------------|-----------------------------|--|
|                              | International Standards     |  |
| EMC directive 89/336:        | EN50081 - Emission          |  |
|                              | EN50082 - Immunity          |  |
| Low voltage directive 73/23: | EN60255 - Electrical Relays |  |

## ORDERING INFORMATION

### EXAMPLE:

**TYPE**  
Battery multi control relay under volt. BMCA  
Battery multi control relay over & under volt. BMCD

**Supply range**  
form 8 to 180V

**ADJUSTMENT**  
Trimpot adj.

**HOUSING**  
Rail mounting  
Socket 11 pin

**SIZE**  
35 mm.

**CODE**  
Extend code  
Code end

