

RCM14-04 AC/DC RESIDUAL CURRENT MONITOR

The RCM14-04 is a residual current monitor intended for the detection of AC and DC residual currents in 60Hz AC installations.

The RCM14-04 is primarily intended for use in CCID20 Electric Vehicle charging stations to disconnect the supply to the Electric Vehicle under an AC and/or DC residual fault current condition.

The RCM14-04 may be used to detect AC and/or DC residual currents in DC, single phase or multiphase installations.

The RCM14-04 is a compact solution designed to be panel mounted. It has a JST connector for easy installation.

This product is fully compliant with the detection requirements of UL2231-2.

MAIN FEATURES

- Operates from a 12V DC supply
- External Test Facility
- JST XH 2.5mm Pitch Connector JST:B4B-XH-A (LF) (SN)
- “Fault” signal output
- LED Indication for “On” and “Fault”
- For use with single or 3 phase loads
- ROHS 2 compliant
- Complies with AC and DC detection requirements of UL2231 (CCID20)
- 3000A Surge Current Withstand
- 14mm Aperture



Order Code: 90148

SEE ALSO

| | |
|-----------------|--|
| RCM14-01 | 6mA DC Detection to IEC62955, 14mm CT Aperture |
| RCM14-03 | 6mA DC/30mA AC Detection to IEC62752, 14mm CT Aperture |
| RCM14-04 SYSTEM | 56mA DC/20mA AC Detection to UL2231-2, 14mm CT Aperture, PCB Mount Sensor Board + CT |

Supply Conditions

The RCM14-04 is intended for operation with a supply voltage of 12V DC +/- 10%.

Performance may be compromised if the supply voltage is outside these limits.

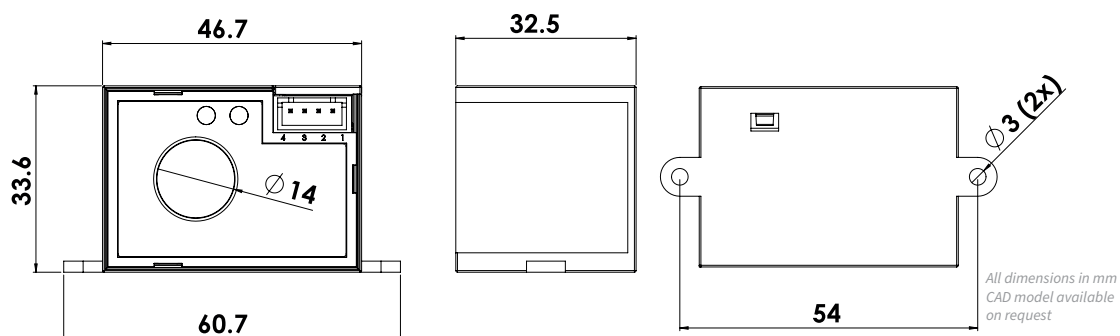
Fault Operation & Auto Reset

When a residual fault current that exceeds the rated AC or DC levels is detected, the RCM14-04 Output pin will switch to the “Fault” state within the specified response times. The Output pin will Auto-Reset when the fault is removed.

| PIN OUT | |
|---------|---|
| Pin 1 | 0V DC |
| Pin 2 | +12V DC |
| Pin 3 | External Test Facility |
| Pin 4 | Fault Signal Output (Active High Open Drain) |

See Application Sheet WA-AS-016 for Connection Diagram

| TECHNICAL DATA | |
|---|--|
| Relevant Product Standard | UL2231-2 (CCID20) |
| Rated Operating Residual Current Limits - (I Δ n) | 56mA DC / 20mA AC |
| Rated Non-operating Residual Current Limit - (I Δ no) | 15mA AC |
| Response Time to residual current fault (time between appearance of fault to output going high) | According to UL2231-2 |
| DC Supply Voltage (V _{cc}): Supply current (no fault present) Supply current (fault current >264mA) | 12V DC \pm 10% 3.5mA 40mA |
| Rated Load Current (single or 3 phase) | 125A Maximum (the absolute maximum temperature of the conductors through the CT must not exceed 105°C) |
| Test Function (Externally applied 12V DC) - Test Current Limit | 3mA DC |
| Fault Signal Output Drain Current Pull up Voltage | Active High Open Drain 100mA Maximum 24V DC Maximum |
| Environmental Operating Conditions Absolute Temperature | -40°C to +85°C |
| Weight | 45g |
| Recommended Screw Type | M3 \times 6 (2 pcs.) |



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