Western Automation
RESEARCH & DEVELOPMENT

Making Electricity Safer by Design
www.westernautomation.com

RCM14-03 AC/DC RESIDUAL CURRENT MONITOR

The RCM14-03 is a residual current monitor intended for the detection of DC and AC residual currents in 50Hz/60Hz AC installations.

The RCM14-03 is primarily intended for use in Mode 2 Electric Vehicle In-Cable Control and Protection Devices (IC-CPDs), to disconnect the supply to the Electric Vehicle under an AC or DC residual current fault condition.

The RCM14-03 may be used to detect DC and/or AC residual currents in DC, single phase or multiphase installations.

The RCM14-03 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 IEC62752.

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 compliant
- Complies with the DC and AC detection requirements of IEC62752 (Mode 2)
- 3000A Surge Current Withstand
- 14mm Aperture

Order Code: 90130

SEE ALSO

RCM01-02	*6mA DC/30mA AC Detection to IEC62752, 9mm CT Aperture*
RCM14-01	*6mA DC Detection to IEC62955, 14mm CT Aperture*
RCM14-04	*56mA DC/20mA AC Detection to UL2231, 14mm CT Aperture*
RCM20-03	*6mA DC/30mA AC Detection to IEC62752, 20mm CT Aperture*
RCM14-03 SYSTEM	*6mA DC/30mA AC Detection to IEC62752, 14mm CT Aperture, PCB Mount Sensor Board + CT*

Supply Conditions

The RCM14-03 is intended for operation with a supply voltage of 12V DC +/- 10%.
Performance may be compromised if the supply voltage is outside these limits.

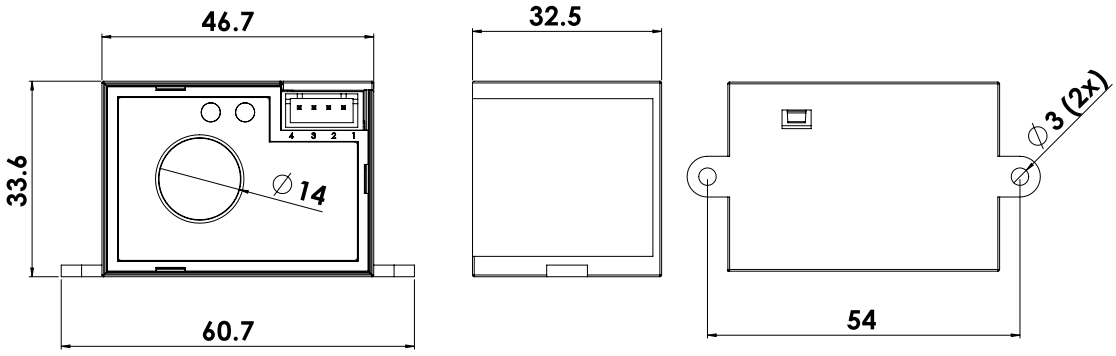
Fault Operation & Auto Reset

When a residual fault current that exceeds the rated AC or DC levels is detected, the RCM14-03 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-015 for Connection Diagram

TECHNICAL DATA	
Relevant Product Standard	IEC62752
Rated Operating Residual Current Limits - (IΔn)	6mA DC / 30mA AC
Rated Non-operating Residual Current Limits - (IΔno)	3mA DC / 15mA AC
Response Time to residual current fault (time between appearance of fault to output going high)	According to IEC62752
DC Supply Voltage (Vcc): Supply current (no fault present) Supply current (fault current >150mA)	12V DC ± 10% 2.2mA 14.5mA
Rated Load Current - Amps The RCM14 modules can accommodate single phase loads up to 100A or three phase loads up to 40A	100A Single Phase 40A 3 Phase
Test Function (Externally applied 12V DC) - Test Current Limit	0.8mA DC
Fault Signal Output Drain Current Pull up Voltage	Active High Open Drain 100mA Maximum +24V Maximum
Environmental Operating Conditions Absolute Temperature	-40°C to +85°C
Weight	45g



All dimensions in mm
CAD model available on request