

# RCM14-01 SYSTEM - RESIDUAL CURRENT MONITOR

The RCM14-01 System is a Residual Current Monitor intended for the detection of DC Residual currents in Mode 3 EV Charging Systems where such currents may flow under a fault condition.

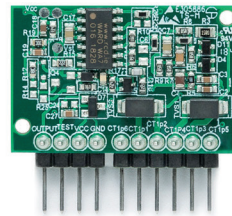
The RCM14-01 System comprises of a CT with 14mm aperture, and a Sensor PCB intended to be mounted directly onto a printed circuit board by OEMs.

The RCM14-01 System may be used to detect 6mA DC Residual Current in DC, single phase or 3 phase installations, and is the equivalent of RCM14-01.

This product is fully compliant with the detection requirements of IEC62955.

## MAIN FEATURES

- Operates from a 12-24V DC Supply
- External Test Facility
- “Fault” signal output
- 6mA DC Detection
- ROHS 2 compliant
- Complies with the DC detection requirements of IEC62955 (Mode 3)
- 3000A Surge Current Withstand



Order Code: 90149

## SEE ALSO

RCM14-01	6mA DC Detection to IEC62955, 14mm CT Aperture
RCM14-03	6mA DC/30mA AC Detection to IEC 62752, 14mm CT Aperture
RCM14-04 SYSTEM	56mA DC/20mA AC Detection to UL2231-2, 14mm CT Aperture
RCM14-03 SYSTEM	6mA DC/30mA AC Detection to IEC 62752, 14mm CT Aperture

## Supply Conditions

The RCM14-01 System is intended for operation with a nominal supply voltage of 12-24V DC +/-10%. Performance may be compromised if the supply voltage is outside these limits.

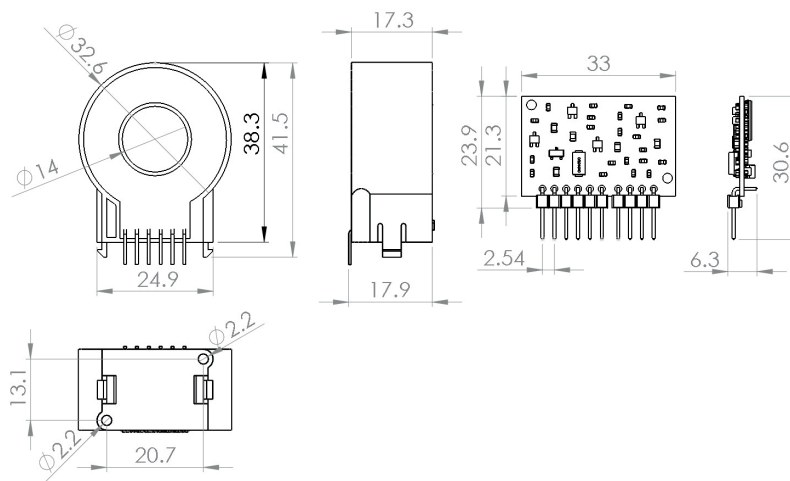
## Fault Operation & Auto Reset

When a Residual Fault Current that exceeds the rated DC level is detected, the RCM14-01 System 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	
1	CT 1
2	CT 2
3	CT 3
4	CT 4
5	CT 5
6	CT 6
7	GND
8	VCC
9	Test
10	Output

See Application Sheet WA-AS-031 Rev A for Connection Diagram

TECHNICAL DATA	
Relevant Product Standard	IEC62955
Rated Residual Operating Current - (I <sub>Δn</sub> )	6mA DC
Rated Non-operating Residual Current Limits - (I <sub>Δno</sub> )	3mA DC
Response Time to residual current fault (time between appearance of fault to Output going high)	According to IEC 62955
DC Supply Voltage (V <sub>cc</sub> ): Supply Current (no fault present @24V) Supply Current (fault current >200mA @24V)	12-24V DC (+/-10%) 4mA 12.5mA
Test Current Limit on Test Function for 12 – 24V externally applied to Test Pin	0.8mA DC Min (12V) 1.6mA DC Min (24V)
Fault Signal Output Drain Current Pull up Voltage	Active High Open Drain 100mA Maximum +26.4V DC Maximum
Environmental Operating Conditions Absolute Temperature	85°C to -40°C
Recommended Screw Type	Self Tapping Screw M2.5× 6 (2pcs.)
Weight	35g



All dimensions in mm  
CAD model available on request

**Disclaimer:** Whilst every effort has been made to ensure the technical accuracy of this document, changes may be made to the document without notice based on information received by WA which necessitate such changes. WA ensures compliance of its products/technology with Product Standards relevant to the WA technology. However, the User of our products/technology has the sole responsibility to ensure that any Product that they produce which uses WA technology complies with the relevant Product Standards and Installation Rules as applicable to the end Product using the WA technology.