



# 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.

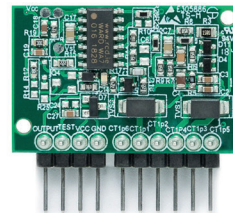
The RCM14-01 System comprises of a CT with 14mm aperture, and a Sensor PCB intended to be mounted directly onto a printed circuit board by OEMs.

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.

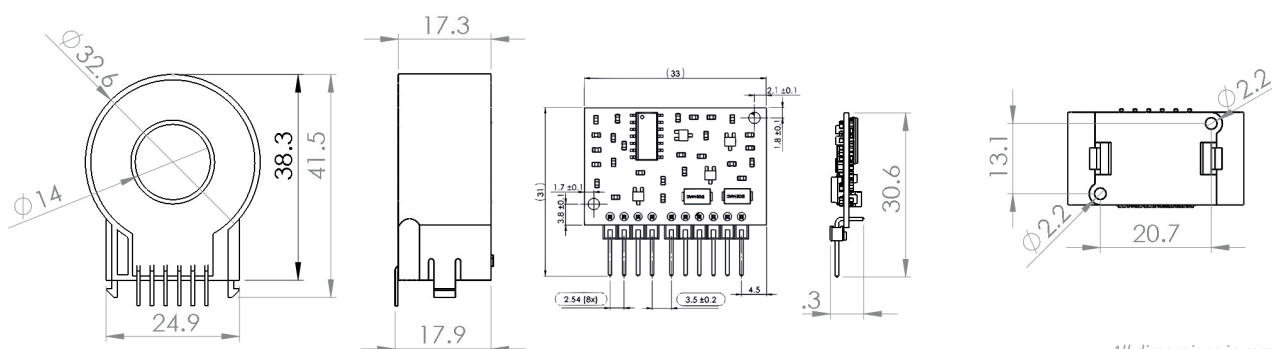
## Fault Operation & Auto Reset

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
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 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

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