

# RCM14-04 SYSTEM - RESIDUAL CURRENT MONITOR

The RCM14-04 System is a Residual Current Monitor intended for the detection of DC and AC Residual currents in UL2231 EV Charging Systems where such currents may flow under a fault condition.

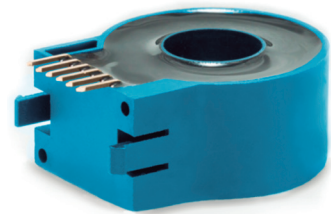
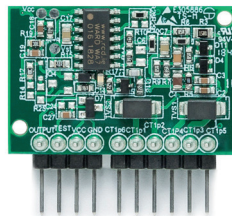
The RCM14-04 System comprises of a CT with 14mm aperture, and a Sensor PCB intended to be mounted directly onto a printed circuit board by OEMs.

The RCM14-04 System may be used to detect 56mA DC and 20mA AC Residual Currents in DC, single phase or 3 phase installations, and is the equivalent of RCM14-04.

This product is fully compliant with the detection requirements of a CCID20 as defined by UL2231-2.

## MAIN FEATURES

- Operates from a 12-24V DC Supply
- External Test Facility
- “Fault” signal output
- Frequency Response DC and 60Hz
- ROHS 2 compliant
- Complies with the DC and AC detection requirements of UL2231-2
- 3000A Surge Current Withstand



Order Code: 90157



## SEE ALSO

RCM14-01 SYSTEM    *6mA DC Detection to IEC62955, 14mm CT Aperture*

RCM14-03 SYSTEM    *6mA DC/30mA AC Detection to IEC 62752, 14mm CT Aperture*

RCM14-04            *56mA DC/20mA AC Detection to UL2231-2, 14mm CT Aperture*

## Supply Conditions

The RCM14-04 System is intended for operation with a supply voltage of 12-24V DC +/-10%. Performance may be compromised if the supply voltage is outside these limits.

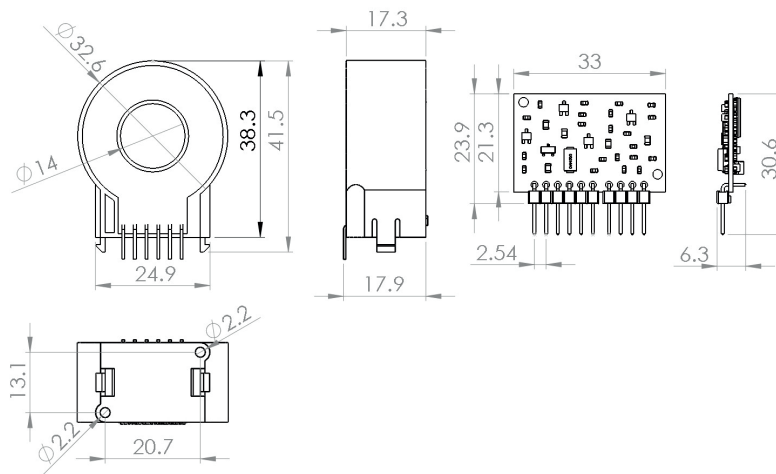
## Fault Operation & Auto Reset

When a Residual Fault Current that exceeds the rated AC or DC level is detected, the RCM14-04 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-034 for Connection Diagram

TECHNICAL DATA	
Relevant Product Standard	UL2231-2
Rated Residual Operating Current - (IΔn)	56mA DC / 20mA AC
Rated Non-operating Residual Current Limits - (IΔno)	15mA AC
Response Time to residual current fault (time between appearance of fault to Output going high)	According to UL2231-2
DC Supply Voltage (Vcc): Supply Current (no fault present @24V) Supply Current (fault current >264mA @24V)	12-24V DC (+/-10%) 5mA 25mA
Test Current Limit on Test Function for 12 – 24V externally applied to Test Pin	2mA DC Min (12V) 4mA 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 (derated below -25°C)
Recommended Screw Type	Self Tapping Screw M2.5× 6 (2pcs.)
Weight	35g



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