

# RCM20-03 RESIDUAL CURRENT MONITOR

The RCM20-03 is a residual current monitor intended for the detection of DC and AC residual currents in 50Hz/60Hz AC installations.

The RCM20-03 is primarily intended for use in Mode 3 Electric Vehicle charging stations, to disconnect the supply to the Electric Vehicle under DC and AC residual fault current condition.

The RCM20-03 may be used to detect DC and AC residual currents in single phase or multiphase installations.

The RCM20-03 is a compact solution designed to be panel mounted. It has a JST connector for easy installation.

This product is fully compliant with IEC62752. It is also used for IEC62955 applications where 30mA AC fault detection is required.

## MAIN FEATURES

- Operates from a 12-24V DC supply
- External Test Facility
- JST XH 2.5mm Pitch Connector JST:B4B-XH-A (LF)(SN)
- "Fault" signal output.
- For use with single or 3 phase loads
- ROHS 2 compliant
- Complies with the DC and AC protection requirements of IEC62752
- 3000A Surge Current Withstand
- 20mm Aperture



Order Code: 90155

## SEE ALSO

RCM20-01	6mA DC Detection to IEC62955, 20mm CT Aperture
RCM20-04	56mA DC/20mA AC Detection to UL2231, 20mm CT Aperture
RCM14-03	6mA DC/30mA AC Detection to IEC62752, 14mm CT Aperture

## Supply Conditions

The RCM20-03 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.

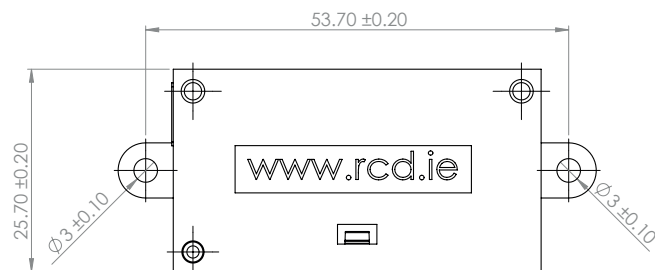
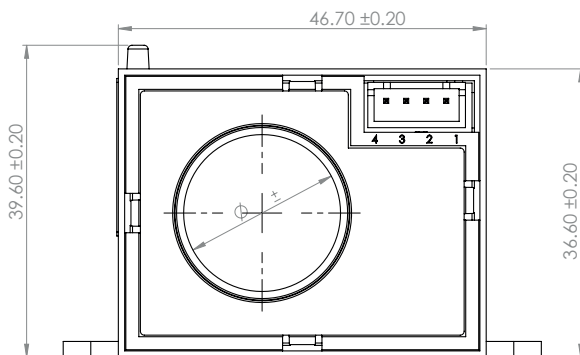
## Fault Operation & Auto Reset

When a residual fault current that exceeds the rated DC level is detected, the RCM20-03 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	12 to 24V+ DC
Pin 3	External Test Facility
Pin 4	Fault Signal Output (Active High Open Drain)

See Application Sheet WA-AS-019 for Connection Diagram

TECHNICAL DATA	
Relevant Product Standard	IEC 62752 / IEC62955
Rated Residual Operating Current - (IΔn)	6mA DC / 30mA AC
Rated Non-operating Residual Current Limit - (IΔno)	3mA DC / 15mA AC
Response Time to residual current fault (time between appearance of fault to output going high)	According to IEC 62752
DC Supply Voltage (Vcc):	12-24V DC ± 10%
Test Function (Externally applied 12V DC) - Test Current Limits	0.8mA DC
Fault Signal Output Drain Current Pull up Voltage	Active High Open Drain 100mA Maximum +24V DC Maximum
Environmental Operating Conditions Absolute Temperature	85°C to -40°C (Derated below -25°C)
Weight	45g
Recommended Screw Type	M3 × 6 (2 pcs.)



All dimensions in mm  
CAD model available  
on request