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RCM20-01 DC RESIDUAL CURRENT MONITOR

The RCM20-01 is a residual current monitor intended for the detection of DC residual currents in 50Hz/60Hz AC installations.

The RCM20-01 is primarily intended for use in Mode 3 Electric Vehicle charging stations, to disconnect the supply to the Electric Vehicle under DC residual fault current condition.

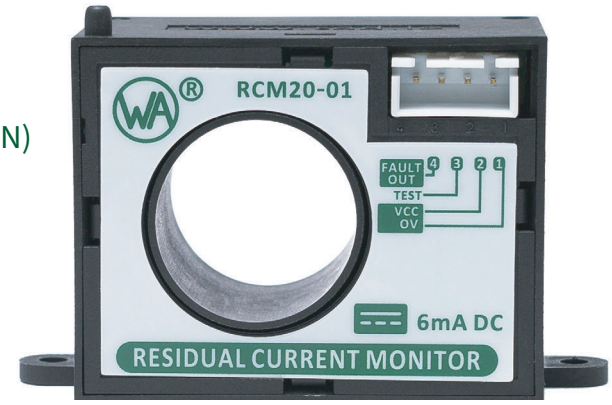
The RCM20-01 may be used to detect DC residual currents in DC, single phase or multiphase installations.

The RCM20-01 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 IEC62955.

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 detection requirements of IEC62955 (Mode 3)
- 3000A Surge Current Withstand
- 20mm Aperture



Order Code: 90122

SEE ALSO

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

Supply Conditions

The RCM20-01 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 RCM20-01 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
Pin 2	VCC
Pin 3	External Test Facility
Pin 4	Fault Signal Output (Active High Open Drain)

See Application Sheet WA-AS-017 for Connection Diagram

TECHNICAL DATA	
Relevant Product Standard	IEC 62955
Rated Residual Operating Current - (IΔn)	6mA DC
Rated Non-operating Residual Current Limit - (IΔno)	3mA DC
Response Time to residual current fault (time between appearance of fault to output going high)	According to IEC 62955
DC Supply Voltage (Vcc): Supply Current (no fault present @24V) Supply Current (fault current >200mA @24V)	12-24V DC ± 10% 4.2mA 13mA
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 for 12 – 24V externally applied to Test Input	0.8mA DC Maximum
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
Weight	37g
Recommended Screw Type	M3 × 6 (2 pcs.)

All dimensions in mm
CAD model available on request