

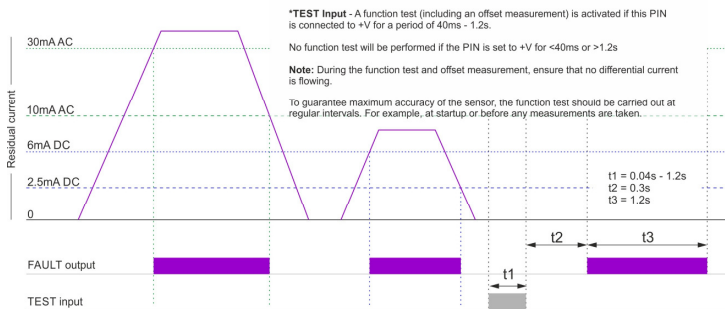
Dims*:
W. 42.5mm
H. 46mm
D. 27mm

*exc. connector pins

- Compliant with IEC 62752
- Fixed 6mA DC and 30mA AC trip levels
- Suitable for Mode 2 and Mode 3 applications
- 3000A surge withstand capability
- Suitable for single phase or three phase loads rated up to 32A
- Built-in current sensor with 13.5mm dia. aperture
- Universal mounting/securing options:
 - Direct to PCB and secured in place using fixing screws
 - Attaching to cable using a cable tie and slots provided
- 4-way (2.54mm pitch) connector – with two options available
 - Male pin header exiting at the underside of the housing (product part no. RCM-EV-01/P)
 - Latching right-angle pin header exiting at the rear of the housing (product part no. RCM-EV-01/S)
- Operates from 5 - 12V DC
- "Test" input
- "Fault" output (Open collector) – Active high¹
- Auto-resets when fault removed



FUNCTION DIAGRAM



INSTALLATION

- BEFORE INSTALLATION, ISOLATE ALL SUPPLIES.
- Mount the device according to the preferred method of use and equipment design.
- DO NOT install the unit in close proximity to equipment generating high magnetic fields.
- Ensure the conductors that pass through the aperture are straight, and as central as possible. Ensure the conductors do not cause any undue stress on the unit itself.
- The earth connection must not pass through the aperture.

Applying power.

- There are no visual indicators or user adjustments. As soon as power is applied the device will begin monitoring for leakage current.

Troubleshooting.

- If the unit fails to operate correctly check that all wiring and connections are good.

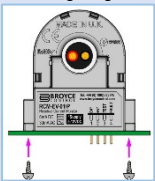


Installation work must be carried out by qualified personnel.

MOUNTING OPTIONS

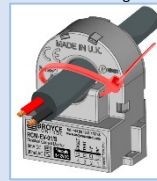
- Depending on model variant, there are two intended methods of mounting:

PCB Mounting using RCM-EV-01/P



2 fixing holes are provided on the underside of the housing allowing M2.5 x 6mm self-tapping screws to be used to secure to PCB.

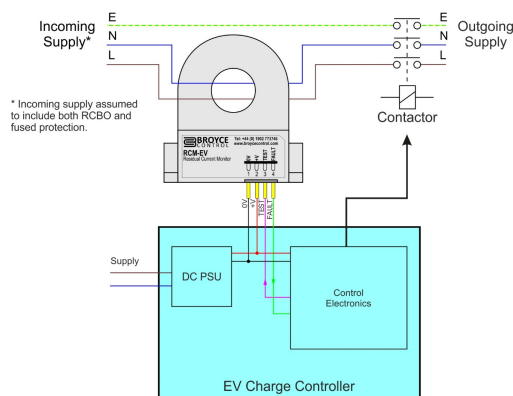
Direct to cable using RCM-EV-01/S



With the cable passing through the aperture, utilising a cable tie and the slots provided, allows the device to be secured in place.

CONNECTION DIAGRAM

Typical connection example for single phase supply



TECHNICAL SPECIFICATION

Auxiliary supply:	
Rated voltage Us (1, 2):	5 - 12V DC (90 – 110% of Us)
Power consumption (max.):	0.6W
Monitored circuit:	
Rated current In:	32A
Rated voltage Un:	230/400V AC
Rated frequency:	50/60Hz
Trip and time delay characteristics:	
Sensitivity/Trip level IΔn:	6mA DC / 30mA AC (fixed)
Residual non-operating current:	0.5 x IΔn
Reset level:	2.5mA DC / 10mA AC <i>Unit resets automatically when current drops below this level</i>
Max. operating time (as per IEC 62752) (for suddenly applied residual current)	
Sinusoidal AC:	6mA 0.3s 0.15s - 0.025s
Pulsed DC (α = 0°):	- 0.3s 0.15s 0.025s
Smooth DC:	10s - 0.3s 0.025s
Accuracy:	±10%
Inputs/Outputs:	
Connection type:	RCM-EV-01/P: 4-way pin header, 2.54mm pitch RCM-EV-01/S: Latching right-angle 4-way pin header, 2.54mm pitch ²
TEST input (3):	Active high (internally pulled down)
Input voltage, high level:	> 2.5V (Max. rating 12V DC)
Input voltage, low level:	< 0.8V
Test input pulse width:	0.04 – 1.2s
FAULT output (4):	Open collector (Max. rating 45V DC, 100mA) ¹ This pin is in a high impedance state during a fault condition
Environmental/Other:	
Ambient temperature:	-40 to +85°C
Storage temperature:	-40 to +85°C
Relative humidity:	Max. 75% @ 40°C
Overvoltage category:	III
Pollution degree:	2
Altitude:	Up to 3000m above sea level
Ingress protection rating:	IP20
Housing:	Grey flame retardant Lexan UL94 V0
Weight:	≈ 32g
Mounting options:	See drawing on the left
Approvals:	Conforms to: IEC 62752 CE, UKCA, and RoHS Compliant.

Numbers in brackets refer to pin numbers on the connector

² Recommended mating connector housing – Molex KK 254 series

SOLDERING PROCESS

Recommended process:	Wave soldering only for the RCM-EV-01/P
Heating temperature:	260°C
Heating time:	5s max.

These products **are not** suitable for re-flow soldering

DIMENSIONS & CONNECTOR PIN-OUT

