

Residential 6kA Residual Current Devices (RCDs)

Standards and approvals

All Sentry RCDs are designed to fully comply with the requirements of BS EN 61 008:1995. IEC 1008:1990

They all feature positive contact status indication in accordance with 17th edition IEE Wiring Regulations (537.2.2.2 and 537 .3 .2 .2).

Technical specification

Electrical

Rated making and breaking capacity /m:

16 - 40A = 500A 63 - 80A = 800A

Type AC

Rated short-circuit current / inc:

16A - 40A = 6,000A (100A Fuse)

Rated residual short-circuit current /IAM: 16 - 100A = 6,000A

Rated voltages:

2 pole devices, 230V

Operating voltages:

2 pole devices, 230V - 100V to 250V

Tripping Time:

1 x IAn ~300ms

5 x IAn ~40ms

Physical

Ambient operating temperature: -25°C to + 40°C

IP rating:

Front face after installation of enclosure IP40

Terminal capacity:

Solid standard - 1 x 1.5 - 35mm² Flexible with female - 1 x 1 .5 - 35mm²

Tightening torque: 3Nm

Max. installation altitude: 2000 metres



Description

The Sentry range of RCDs offer a comprehensive selection of devices designed to meet most residential, commercial and light industrial requirements.

The range is two pole, a.c. fault current sensitive with a selection of current ratings from 16 to 80A and is available in a variety of tripping sensitivities.

When in the OFF position a contact gap of 4mm is present, enabling Sentry RCDs to be used as isolating switches where appropriate.

The operating dolly may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate, i.e. the RCD is 'trip-free'. It is not possible to hold the contacts closed when a fault condition exists.

All Sentry RCDs incorporate a filtering device to provide protection against transient surges in the supply to the unit, thus reducing the occurrence of unwanted tripping.

Features

- Meet BS EN and IEE Wiring Regulation requirements
- Extensive range to suit all specifications
- Protect against unwanted tripping
- Positive contact status indication
- Suitable for most residential, commercial and light industrial applications
- Offer a high degree of protection against electrocution in accidental shock hazard situations
- Two module, double pole units available up to 80A

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Rating specification

Double pole, 2 module

Rating	Tripping current	List No.
16A	30mA	7816s
32A	30mA	7832s
40A	30mA	7840s
63A	30mA	7860s
80A	30mA	7880s
63A	100mA	7560s
80A	100mA	7580s
63A	300mA	7660s
80A	300mA	7680s

Operation

The RCD provides an indication of an earth fault and contact status as detailed below.

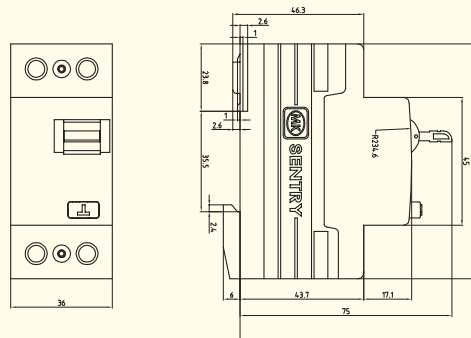
The operating dolly provides the following indication:

I = Switched ON

O = Switched OFF

The contact status is shown via dolly markings.

In the event of an Earth Fault in the installation or the operation of the test button, the dolly will move to the OFF position. To re-connect the supply the dolly must be reset by moving it to the ON position.



Testing

If an RCD is installed as additional protection for basic protection, it is a requirement of the IEE Regulations that the effectiveness of the RCD be verified. This must be achieved by a test simulating an appropriate fault condition and be independent of any test facility incorporated in the RCD. The test currents to be applied are as follows:

Test current	Condition
0.5 x I _{Δn}	RCD must not trip
1.0 x I _{Δn}	RCD must trip within 300ms
5.0 x I _{Δn}	RCD must trip within 40mS

Where I_{Δn} is the RCD's rated tripping current in accordance with wiring regulations and product standard BS EN 61008.