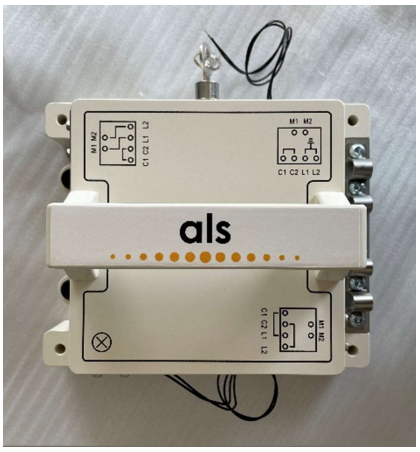
AIRFIELD LIGHTING SYSTEMS UK LTD

SCO – Series Plug Cut Out

The Series Plug Cut Out Switch (SCO) is designed with safety first, second and third in mind. They are designed to safely isolate the series circuit from the CCR's before testing or maintenance on any fittings on the airfield.



They enable the airfield ground lighting field series circuit to be safely disconnected, isolated, and earthed by the simple rotation of the connector lid without exposing the user to high voltages.

The lockable top cover lifts out, rotates and is re-inserted at 90 degrees back into the base unit, then is locked to safely isolate the circuit.

Tough and durable providing reliable multi-use operation, thanks to the shape of the body and "lock and rotate" operation.

Features

- Speeds up maintenance by not having to disconnect cables.
- Lockable for the user to stop any accidental re-energisation of the circuit while in maintenance mode.
- Designed for easy mounting on the CCR cabinet or wall.
- Easy to operate with moulded handle and top cover.
- Permits use on the circuit with safe isolation of power.
- Industrial construction for safety with special flame retardant epoxy ABS but only 3.18Kg weight. This is also better than porcelain for shock resistance.
- Heavy Brass terminals take up to 10mm cable, reinforced with metal outer case.
- Series cable clamps facilitate screened cable to be earthed easily if required.

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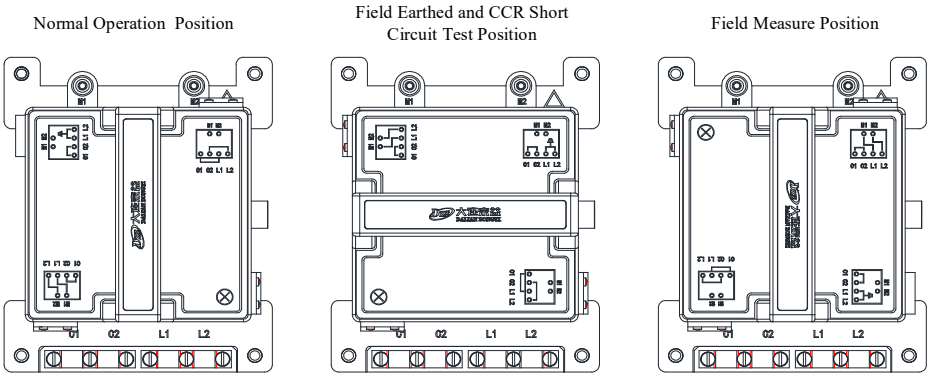
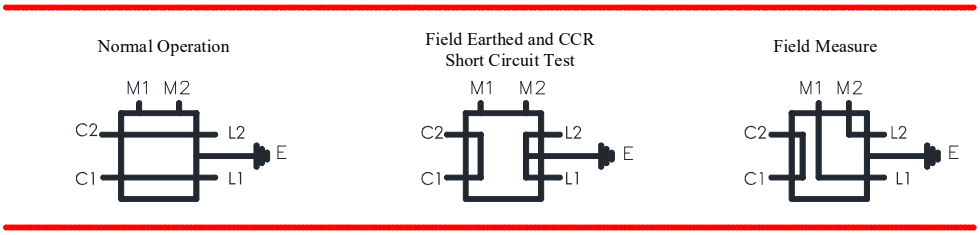
- A safety lock facility is available when in the 'Field Earthed' position allowing easy and safe access for testing of field circuits.
- Circuit breakers are designed to be reinstalled to cable terminals.

How it Works





The Series Circuit Cut Out (SCO) has three operating positions:

- In the **"Normal Operation"** position - the output of the CCR is connected directly to the series circuit.
- In the **"Field Earthed and CCR Short Circuit Test"** position, the output of the CCR is shorted together, isolated from the AGL field circuit, and the field circuit is shorted and connected to earth. This enables commissioning of control system and CCR's without applying power to the series circuit.
- In the **"Field Measure"** position, the output of the CCR is shorted together. Access for instrument connection to both of the load side terminals is provided via 4mm test sockets M1 and M2. This allows for Megger testing and continuity testing of the field circuit.

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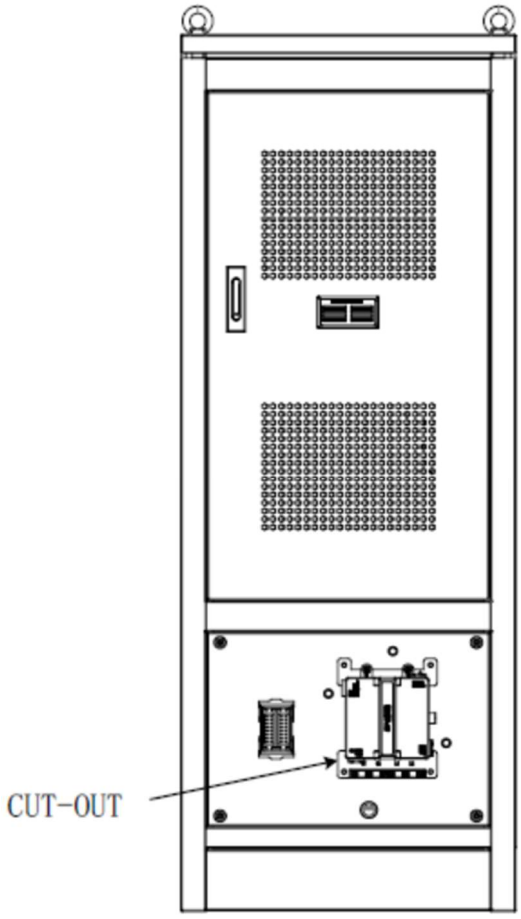
Installation

The SCO can be wall mounted but the most common is on to the body of the CCR itself as shown below on the drawing.

CCR With SCO



Regular CCR for Wall mounting SCO

Technical Specification

- Voltage rating: AC 5 kV
- Current rating: 12A carrying capacity.
- Dielectric strength - Meets requirements of IEC 61822
- Maximum cable cross section 10 mm^2
- Maximum cable insulation diameter: 12mm
- Maximum Megger test voltage： DC 10 kV (“Field Measure” position)
- Temperature range: -30°C to + 55°C

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Compliance

- IEC 61822:2009
- ICAO Doc 9157 Aerodrome Design Manual Part 5
- AENA DIN/DSEYN/PPT/002-05-13

Dimensions

Length: 220mm × Width: 178mm × Height: 134mm

Weight

Gross 3.18Kg