

# SCA0410

## 4 Channel x 10 Amp Adaptive Source Controller

### Key Features

- 4 x 10 Amp fully rated programmable and adaptive source controller module
- 128 scene memory
- Each channel can be set for leading or trailing edge dimming suitable for resistive, inductive and capacitive loads
- Complete with iProtect™ lamp protection and auto short circuit protection
- Multiple choice of circuit protection and security door to MCBs
- Optional RCBO per channel
- Fail to full safety feature
- iCAN Network inputs
- Audio Visual Port (RS485)
- Optional: DMX512 input
- Panic/fire alarm input
- Configuration stored in Non Volatile EEPROM
- Firmware storage in reflashable FLASH memory over iCAN network
- CE compliant to all relevant standards
- Designed and manufactured to ISO9001:2015 standards

### Overview

This 4 x 10 amp adaptive source controller is designed to provide scene set dimming of lighting loads that require either leading or trailing edge dimming. This FET based adaptive dimmer is suitable for resistive, inductive and capacitive loads. In the event of reactive loads being detected, it uses patented circuitry to protect both itself and the connected load. With a 128 scene integral memory this device offers multiple control options to meet the most demanding specifications.

The device is complete with dynamic voltage and current monitoring. This facility provides short circuit protection, and protects the lamps from thermal shock and so extends the lamp life. It is completely silent in operating mode when using trailing edge dimming. In addition to the network connectivity,

it also has an audio visual port and auxiliary, as well as a DMX512 optional input. The versatility and adaptability of this product makes it the perfect device for hotel ballrooms, museums, visitor centres, entertainment venues, and as part of large integrated systems.



## Mechanical Data

Weight: 9kg

### SCA0410S - Mains Cable Access:

4 x 25mm and 1 x PG29 knockouts

Control Cable Access: 1 x 25mm knockout

### SCA0410N & SCA0410D - Mains Cable Access:

4 x PG16 and 1 x PG29 knockouts

Control Cable Access: 1 x PG16 knockout

### Climate Range:

Temperature: +2°C to +40°C

Humidity: +5 to 95% non condensing

**Temperature Monitor:** This unit is complete with thermal monitoring. Should it over-heat the unit will automatically switch off

### Control Inputs:

Two sets of terminals for the iCANnet™ network

Suitable for Belden 1502

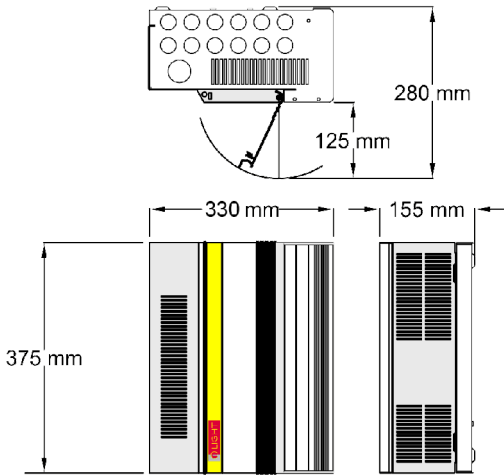
One RJ12 socket for programming iCANnet™ network

One set of terminals for the Audio Visual Port, RS485

One set of terminals for the panic/fire alarm input

**Optional:** DMX512 input card (add X to the end of the part number)

## Dimensions



SCA0410 RCBO & RCBOX versions - Consult iLight

## Electrical Data

**Maximum Load:** 40 Amp single phase @ 40°C

**Maximum Channel Current:** 10 Amp\*

\*Please note: There are no industry standards for mains dimmable LED designs. Individual lamp performance and dimming ranges vary considerably between manufacturers, models and even over time. Always refer to the lamp manufacturer's recommended limits for leading/trailing edge operation, derating of load due to inrush current and maximum number of lamps per circuit. This is often limited to less than 10 lamps per circuit regardless of load. It shall be the responsibility of the installer to check lamp compatibility in advance or arrange proving tests/quantities as necessary.

**Supply:** 415/230 volts +/- 10% 50/60 Hz (optionally, 220/127 volt 60 Hz)

**Protection:** 10 Amp MCBs Type C, 10KA rated plus internal electronic short circuit protection, input isolator not included

### Options

SCA0410S - Single pole

SCA0410RCBO - RCBO Breakers

SCA0410RCBOX - 4 x SP MCB (For field fit of RCBOs)

### Load Types:

Incandescent 230 volt lamps

Low voltage inductive lamps (wire wound or electronic)

Low voltage electronic (capacitive)

Cold cathode (Check the iLight help desk for details)

**Minimum Load:** 20 watts per channel

**Dimmed Outputs:** 2 x 45 Amp FET's per circuit

### Switched Outputs:

The Dimmed outputs may be configured as switches for non-dimmed loads. They require a minimum load of 30mA for them to latch. Before connecting discharge lamps, consult the iLight help desk.

### Terminal Sizes:

Incoming supply, max cable size: 10mm<sup>2</sup>

Loads, max cable size: 1 x 4mm<sup>2</sup> or 2 x 2.5mm<sup>2</sup> per circuit

iCANnet™ network cable size: 5 x 1mm<sup>2</sup>

Audio Visual Port: RS485 2 x 1mm<sup>2</sup>

Panic/fire alarm input: 2 x 1mm<sup>2</sup>

### Memory

FLASH memory to be able to upgrade firmware

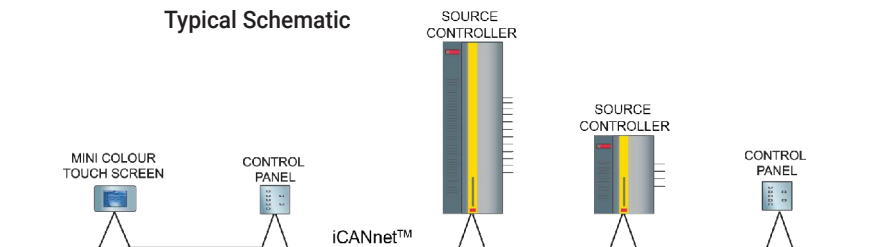
EEPROM for 128 scene memory

**Fade Times:** 0.1 seconds to 60 minutes

**Mains Stabilisation:** 50:1

**Other Adaptive Source Controllers:** SCA1210 and SCMA0402

## Typical Schematic



## Contact Us

+44 (0)1923 495495

enquiries@iLight.co.uk

www.iLight.co.uk

**Cooper Lighting Solutions**  
20 Greenhill Crescent,  
Watford Business Park,  
Watford, Herts, WD18 8JA. UK

Changes to the products, to the information contained in this document, and to prices are reserved; so are errors and omissions.

iLight is a registered trademark.

All other trademarks are property of their respective owners.