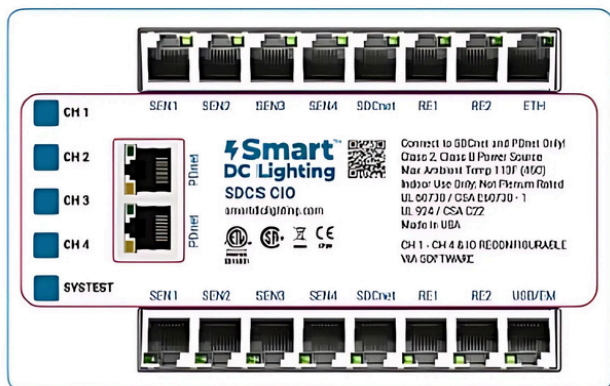


System Controller



Overview

The **SDCS CIO** controller is the brains of the SmartDC lighting system. It provides the data connectivity for both the QuadDCDrive DC to DC drivers and power distribution/data architecture for the SDCnet sensors, inputs & outputs to create a fully functional low voltage direct current lighting system. It acts as the intelligence hub for the lighting network. The controller receives its power from a nearby QuadDCDrive and passes it to daisy-chained devices via the SDCnet Bus.

Features:

- The controller provides real time clock control and command of the lighting system.
- Each system controller supports up to eight (8) **QuadDCDrive®** four-channel drivers and (16) SDCnet devices. Multiple controllers can connect and scale via the 10/100 Ethernet network port.
- RESTful API within the controller will allow for deep integration with 3rd party systems.
- Internal Battery: 10 year shelf life. When not powered, it will maintain its charge for >1 year

Applications:

Theatrical, entertainment, architectural and energy management lighting systems within alternating current electrical systems, low voltage direct current electrical systems, ON Grid / OFF Grid, RV, marine, accessory dwelling units, spacecrafts and more.



Electrical Specifications:

- **Input Voltage:** via PDNET RJ45 port 48VDC nominal
- **Output Voltage:** 24VDC via SDCnet RJ45 ports, 250mA MAX (both outputs combined)
- **Controller Standby Power:** <1W
- **Output Voltage to sensor ports:** 24VDC

Operating Environment:

- **Operating Temperature:** 32°F to 113°F (0°C to 45°C)
- **Relative Humidity (Non-condensing):** 0% to 95%
- **Not Plenum Rated**

Mechanical Construction:

- **Dimensions:** 7.42" x 3.90" x 1.00" Plastic enclosure
- **Weight:** 0.5 lbs (226.8 g) per unit

Certifications:

This product complies with UL 60730, CSA E60730-1, UL-924, CSA C22 and CE. It also meets the requirements of federal procurement law under the Buy America Act (FAR 52.225-9) and the Trade Agreements Act (FAR 52.225-11).

Patents Pending

Warranty:

General Terms & Conditions:

SDCS CIO is backed by a 5-year limited warranty against defects in materials and workmanship under normal use.

I/O

- (4) Relay Control Outputs: Each supports normally open and normally closed
- (8) Sensor Inputs: Each supports NO, NC dry contact 0-10VDC dimming, and 0/24V sensors
- (2) SDCnet Bus Ports: +24VDC power and data comms to SDCnet switch devices on the Bus
- (2) PDnet Bus Ports: power and data comms from multi-channel drivers
- (1) ETH Port: For networking purposes, 10/100, WiFi, Bluetooth
- (1) USB/EM: This dry contact port receives a signal from the inverter to go into EM mode for UL 924 emergency lighting compliance. This port is also used for USB programming.

Specification Ordering Catalog Number

E.g. SDCS CIO

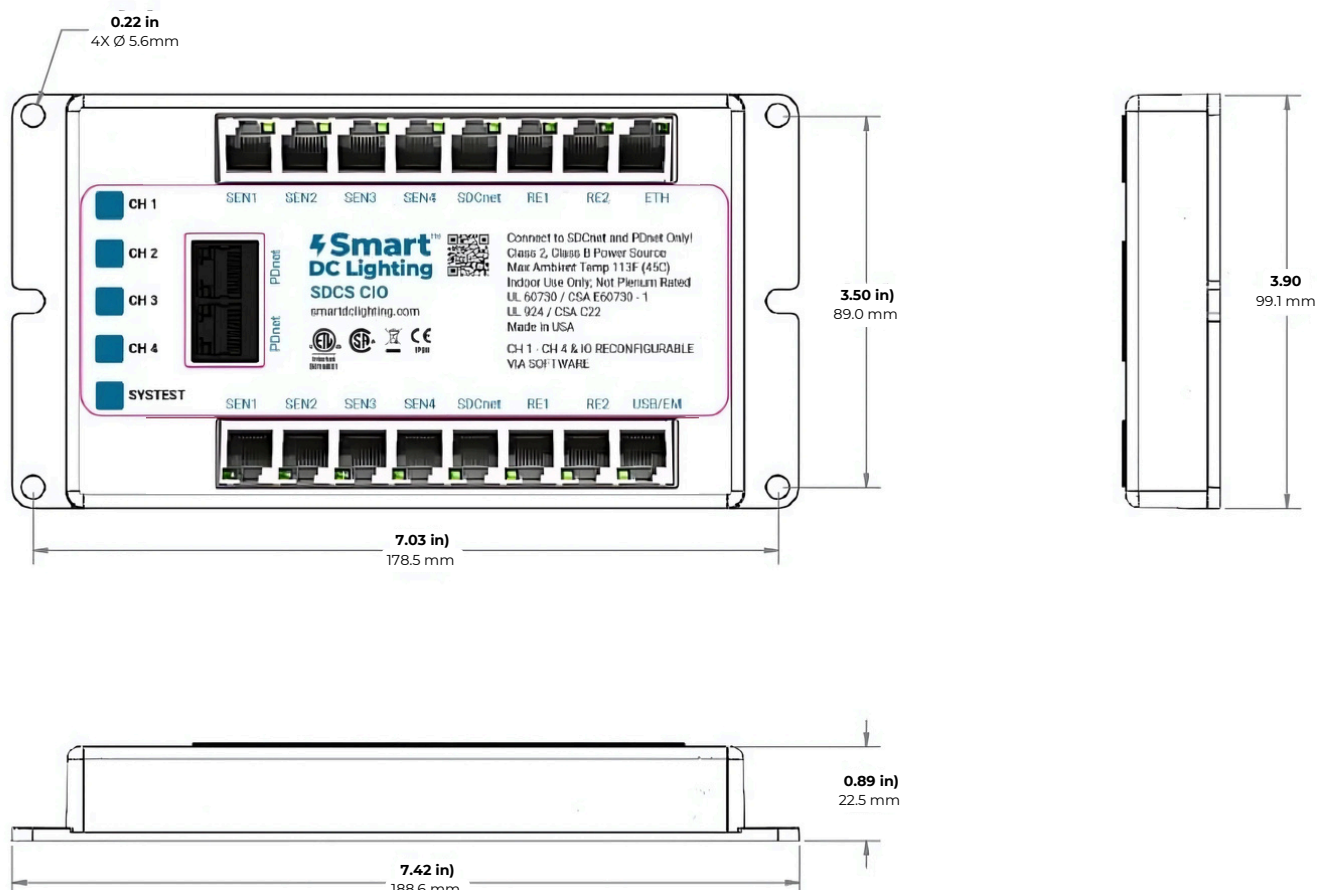
CONTROLLER

SDCS CIO Smart DC Controller with I/O

Internet Communication Protocol

- Ethernet Connection Speed: 10/100 Mbps
- Addressing: IPV4 or Hostname
- Web Server Protocol: HTML5
- Web Server Application Interface: RESTapi

Mechanical Layout

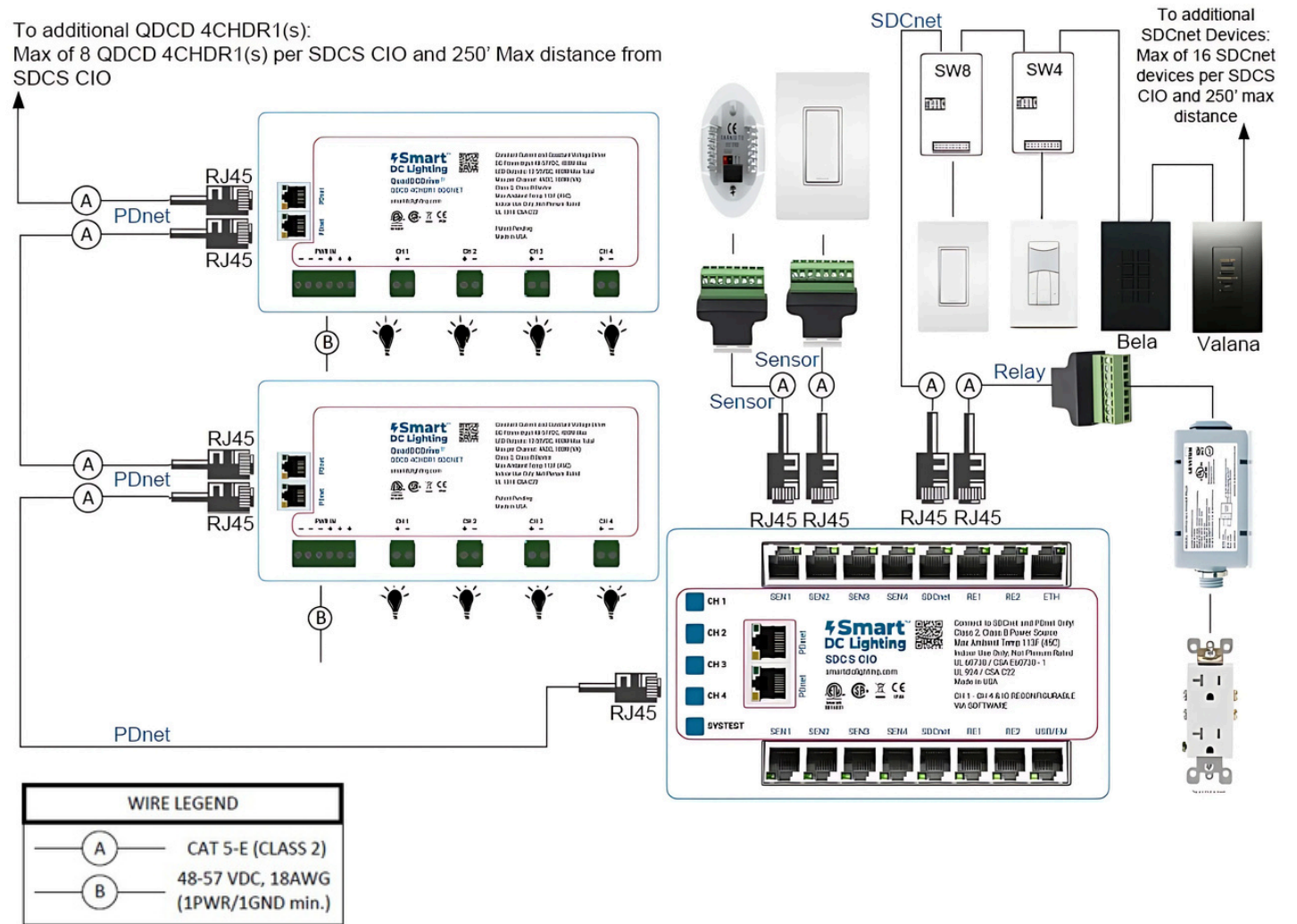


DATE:LOCATION:

TYPE:PROJECT:

CATALOG #:

Typical Smart DC Lighting System Architecture



Visit smartdclighting.com for additional topology and wiring diagrams.

