

Order No.	Description
1809969004	CoreSync Compact Driver, 4xCV, 24V

# CoreSync Compact Driver, 4xCV, 24V



INSTALLATION INSTRUCTIONS

395000005 3.50mm Pitch Eurostyle Horizontal Plug, 5 Circuits (Included)

## IMPORTANT SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS

#### 1. CAUTION AND WARNING

- **CAUTION** Observe precautions for handling electrostatic sensitive devices.
- WARRANTY Voided if device has been modified from its original configuration or in the event of hot plug/hot swap.
- **WARNING** Risk of Electric Shock. Do not handle energized module with wet hands or when standing on wet or damp surfaces.
- Use only with Class 2 Power Unit 60VDC Max.
- Do not use outdoors.
- Suitable for damp locations
- Conforms to UL960730-1, CAN/CSA-E60730-1. For CSA, device is intended to be installed in a restricted access area.
- Suitable for Use in Other Environmental Air Space (Plenums) in accordance with Section 300.22, (C) of the National Electrical Code
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- Maximum temperature is 30°C ambient.
- Input: PoE voltage range of 42-57V.

CONSTANT VOLTAGE DRIVER MUST BE INSTALLED BY A CORESYNC CERTIFIED TECHNICIAN (CHECK WITH LOCAL AND NATIONAL CODES FOR PROPER INSTALLATION)



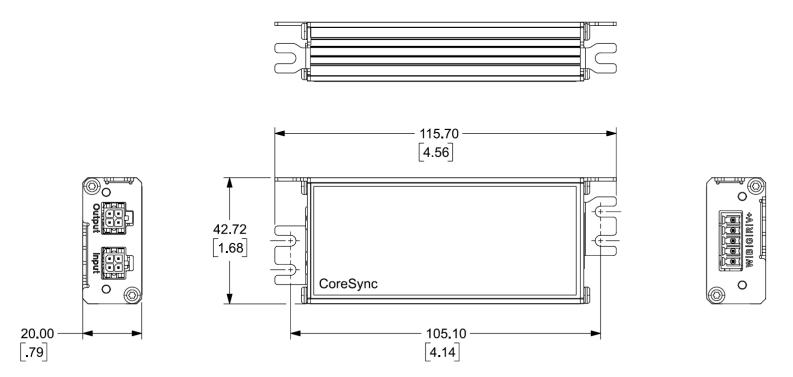
## 2. Product Description:

The CoreSync Compact Driver is a low voltage, DC/DC LED driver for driving Constant Voltage LED engines in a wide variety of light fixtures. Controlled and powered by a Molex CoreSync Gateway. The CoreSync Compact Driver can be embedded in a fixture or placed remotely. The Driver is connected to the CoreSync Gateway using rugged and reliable CoreSync Harness.

#### 3. Procedures

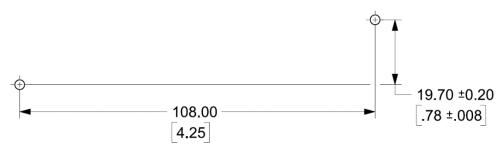
Step 1. Ensure that the Gateway being utilized to power and control this driver is deenergized to prevent hot plugging.

Step 2. Refer to the dimensions and mounting patterns below to mount the constant voltage driver. Dimensions for CoreSync constant voltage driver:

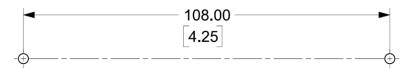




Mounting pattern for CoreSync 90W 802.3bt Gateways:

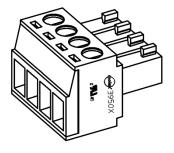


MOUNTING HOLES LOCATION, OFFSET MOUNTING FOR A #6-32 SELF TAPPING SCREW



MOUNTING HOLES LOCATION, VERTICAL/CENTER MOUNTING FOR A #6-32 SELF TAPPING SCREW

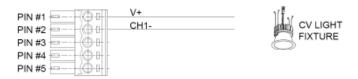
Step 3. Attach the LED fixture wires to the Molex 5 position screw plug connector. Tighten the screws to secure the wire inside the terminal block. Terminal block wiring is dependent on the fixture type and number of fixtures.



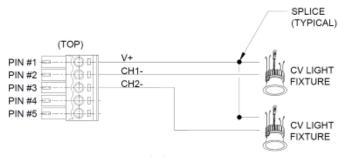
Step 4. The Constant Voltage Driver can operate either Mono-lights, Tunable-lights, or RGBW-lights. Differing fixture types can also be connected to one device following the wiring below.



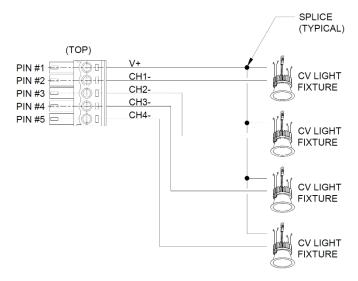
Mono-Light 1. A single 40W fixture can be supported since an individual channel can support a maximum of 1.8A.



Mono-Light 2. Multiple single channel fixtures of differing wattage can be connected to one driver as long as the total amperage does not exceed 1.8A.

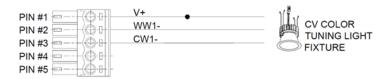


**Mono-Light 3.** All 4 channels can be utilized for control of single channel fixtures.

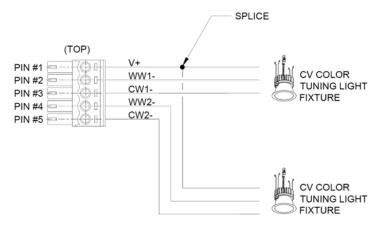




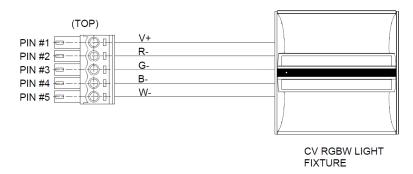
Tunable-Light 1. A single 40W fixture can be supported since an individual channel can support a maximum of 1.8A.



Tunable-Light 2. Two tunable fixtures of differing wattage can be connected to one driver as long as the total amperage does not exceed 1.8A.

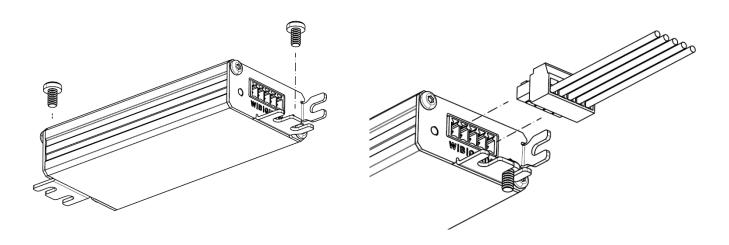


RGBW-light. Both Mono lights and tunable lights can be controlled by the same driver as long as the full set of connections are available for the channel used.

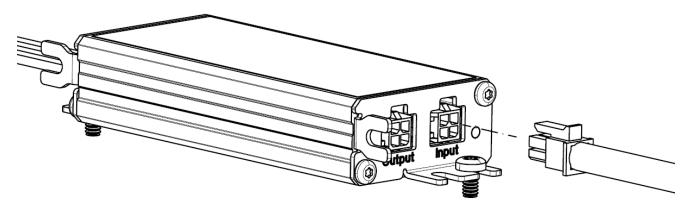




Step 5. Use #6 self-tapping screws to mount the driver as shown below (Screws not provided). It is recommended that the driver is not connected to earth ground.



Step 6. ENSURE THE GATEWAY IS DEENERGIZED TO PREVENT HOT PLUGGING. After connection to the LED fixture, snap in the CoreSync cable harness 2x2 PIN end as shown below to the INPUT side.

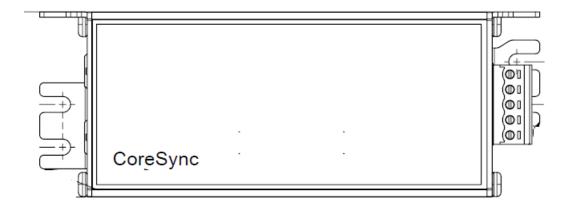


Step 7. The other end of the wire harness goes into the Gateway or the previous daisy-chain device's output port. The Gateway is supplied separately.



# 4. Calculating Case Temperature

The constant voltage driver has been tested to 40°C ambient temperature, type IC. This means it may be installed separately in a surface mounted or a recessed mounted location and is inherently protected when installed in a ceiling space with insulation, all up to an ambient temperature of 40°C. The driver may be installed in a fixture or other enclosure if the Tc point on the driver does not exceed 90°C when fully powered. Please see the image below for Tc location. For proper measuring, the label must be removed before placing a thermal sensor.



#### 5. CALCULATING MAX CONNECTED DEVICES:

The IEEE 802.3bt standard guarantees at least 71.3W at the input of the Gateway. Using this number and the max power consumption of 3.2W for this gateway, provides 68.1W of connected devices. Please use individual data sheets of the connected devices in tandem with the CoreSync Harness Length Calculator to determine the maximum power consumption. For further details please refer to the CoreSync Academy Module "Device Layout & Design Overview".

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