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Product Manual

CEN-SWPOE-5AC

5-Port PoE Network Switch

Crestron Electronics, Inc.

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All other languages are a translation of the original document.

Regulatory Model: M202214001

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Overview

The CEN-SWPOE-5AC is a 5-port unmanaged Gigabit Ethernet switch that provides Power over Ethernet (PoE) from four of its ports. Power over Ethernet provides a one-wire solution for connecting Crestron touch screens, gateways, and other devices, delivering power and data over a single CAT5/6 network cable. Auto-negotiating and auto MDI/MDIX allows the ports to negotiate device connection types. All five ports are Gigabit capable to ensure maximum bandwidth for multimedia and critical control data.

Using the CEN-SWPOE-5AC, there is no need to install a separate power supply at each networked device location. The CEN-SWPOE-5AC can simply be mounted at a convenient location on a wall or in an equipment rack, providing a single power source for four separate 802.3af/at compliant PoE powered devices. Non-PoE devices may also be connected to any port on the CEN-SWPOE-5AC without risk of damage to either component.

Key features include:

- 5-port unmanaged Ethernet switch
- All ports support 1000BASE-T Gigabit Ethernet
- Provides PoE and PoE+ (802.3af/at) on four ports
- Auto-negotiating and auto MDI/MDIX
- Rugged metal enclosure
- Mounting options for flat surface or ceiling, junction box, and DIN rail applications
- Supports lighting control for room-to-room communication

Specifications

Product specifications for the CEN-SWPOE-5AC.

Product Specifications

Ethernet

Ports	(5) 100BASE-TX/1000BASE-T
Ethernet Network Standards	IEEE 802.3, 802.3u, 802.3ab, 802.3x, & 802.3af /at
Transmission Method	Store-and-forward

Indicators

PoE 1 – 4	(4) green LEDs, indicate a PoE powered device is connected to each corresponding Ethernet port
Uplink	(1) green LED and (1) amber LED; indicate Ethernet link status, speed, and activity at the Uplink port
1 – 4	(1) green LED and (1) amber LED per each of (4) Ethernet ports; indicate Ethernet link status, speed, and activity at each corresponding port
Power	(1) green LED, indicates operating system

Connectors

Uplink	(1) 8-wire RJ-45, female; 100BASE-TX/1000BASE-T Ethernet port
1 – 2	(2) 8-wire RJ-45, female; 100BASE-TX/1000BASE-T Ethernet ports and PoE+ Power Sourcing Equipment (PSE) outputs; Ports 1 and 2: 30 W per port
3 – 4	(2) 8-wire RJ-45, female; 100BASE-TX/1000BASE-T Ethernet ports and PoE Power Sourcing Equipment (PSE) outputs; Ports 3 and 4: 15.4 W per port

Power Requirements

Input Range	100-277VAC 50/60Hz
Input Current	2A @ 115VAC, 1A @ 277VAC max

Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (noncondensing)
Heat Dissipation	10 BTU/hour

Construction

Chassis	Metal, black finish, with (2) integral mounting flanges
Mounting	Freestanding, surface mount, ceiling wall box, DIN 49073, DIN Rail or attach to a single rack rail

Dimensions

Height	4.72 in. (120 mm)
Width	7.34 in. (187 mm)
Depth	1.85 in. (47 mm)

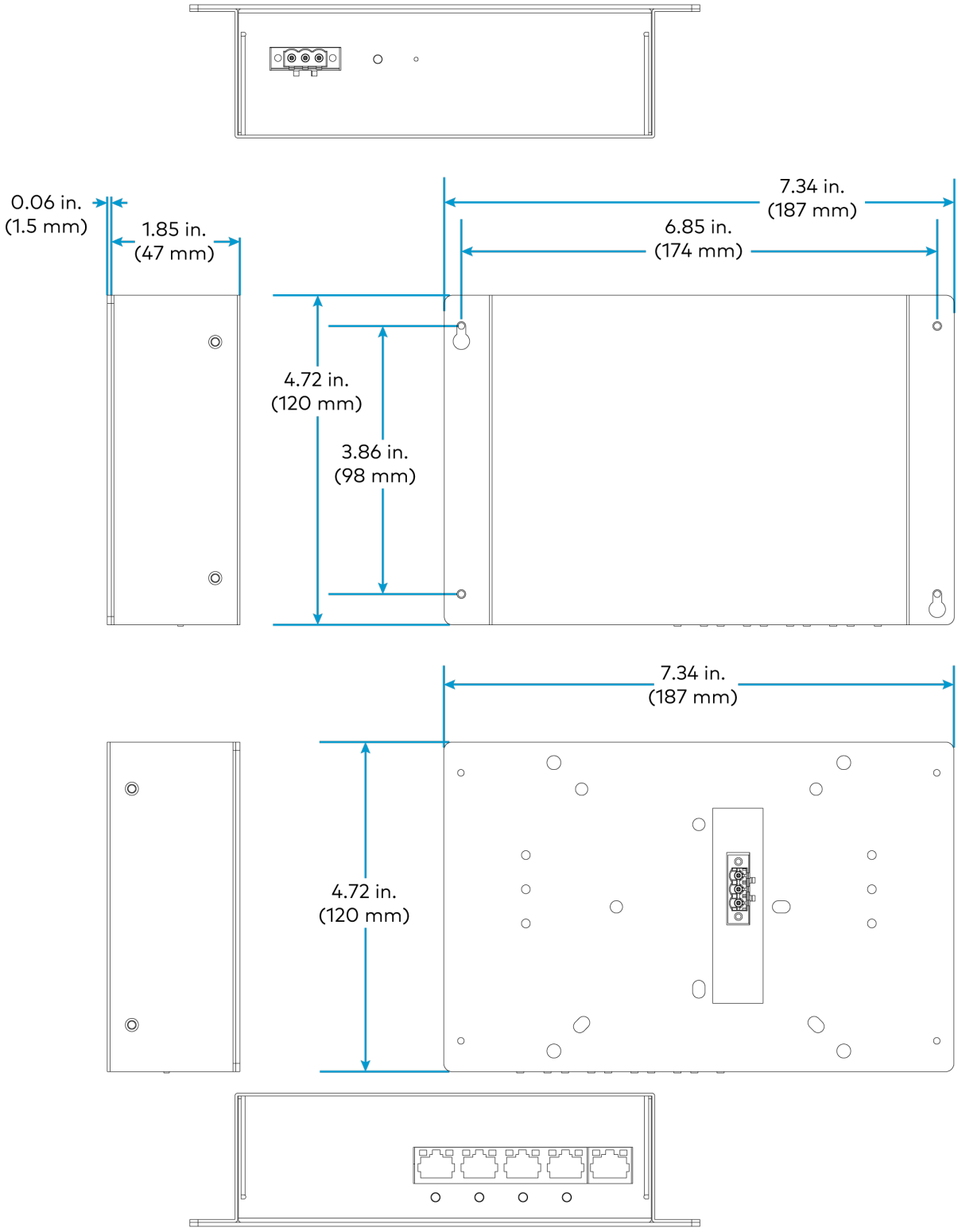
Weight

30 oz (850 g)

Compliance

Regulatory Model: M202214001
FCC Part 15 Class B, IC Class B, CE, UL® Standards for US and Canada

Dimension Drawings



Installation

The CEN-SWPOE-5AC PoE switch can be installed to a four-inch square electrical box or 68 mm (2.68 in.) standard round EU electrical box, DIN Rail, or the flat surface of a cabinet.

WARNINGS:

- To avoid fire, shock, or death, turn off the power at the circuit breaker or fuse and test that the power is off before wiring!
- The switch is not designed for connecting to any network equipment or cables for outdoor use. Connecting it outside the building could result in damage or decreased performance of the product.
- There are two location options for connecting line power. Only one location may be used at a time. The unused location must be covered by the included shield.

NOTES:

- Install and use this product in accordance with appropriate electrical codes and regulations.
- A licensed electrician must install this product.
- When installing in an enclosure, group high-voltage devices separately from low-voltage devices.
- Use copper conductors only.
- Only use 12-28AWG wire for the terminal block. Tighten the terminal block to 4.5 lb-in.

The following sections include:

- In the Box
- Required Equipment
- Determine Mounting Orientation and Line Power Location
- Mount to Electrical Box
- Mount to DIN Rail in DIN Cabinet
- Mount to Flat Surface
- Replace a CEN-SW-POE-5
- Connections

In the Box

Qty.	Description
1	CEN-SWPOE-5AC, 5-Port PoE Network Switch
	Additional Items
1	Backplate
1	Terminal block connector (2062404)
2	DIN rail adapters (2062406)
4	M3 X 6 mm screws (2062403) (for attaching the switch to the backplate)
4	M3 X 10 mm flathead sheet metal screws (2062405) (for DIN rail adapters)

Required Equipment

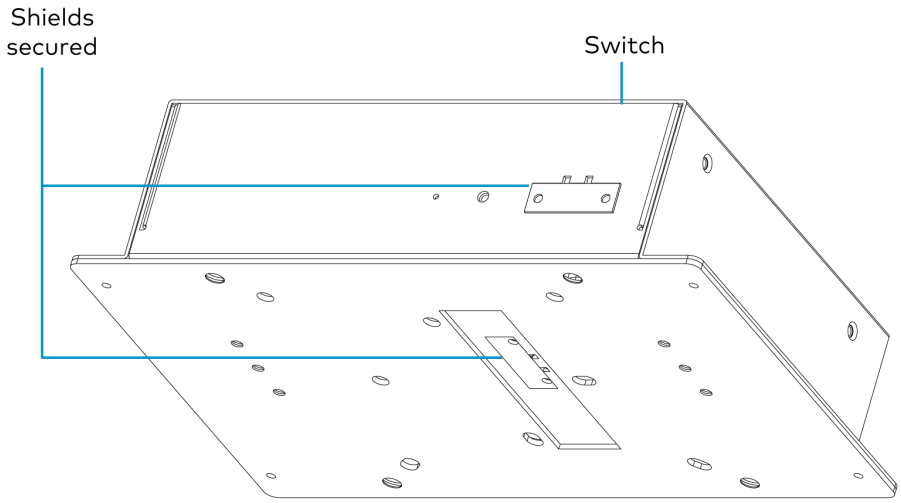
Equipment not included but is required for installation:

- Junction box or flat surface mounting to a cabinet:
  - Philips head screwdriver
  - 2-4 mounting screws for mounting the backplate to a four-inch square electrical box, 68 mm (2.68 in.) standard round EU electrical box, or flat surface
  - If the junction box is flush with a flat surface, use 3 mm washers when securing the M3 screws.
- DIN rail mounting: #1 bit screwdriver for attaching DIN rail adapters

Determine Mounting Orientation and Line Power Location

Determine the mounting location and verify the proper orientation of the backplate and the CEN-SWPOE-5AC. There are two location options for connecting the line power: the bottom of the switch, which can still be accessed when the backplate is attached, and the side of the switch. Out of the box, both locations are covered by a shield.

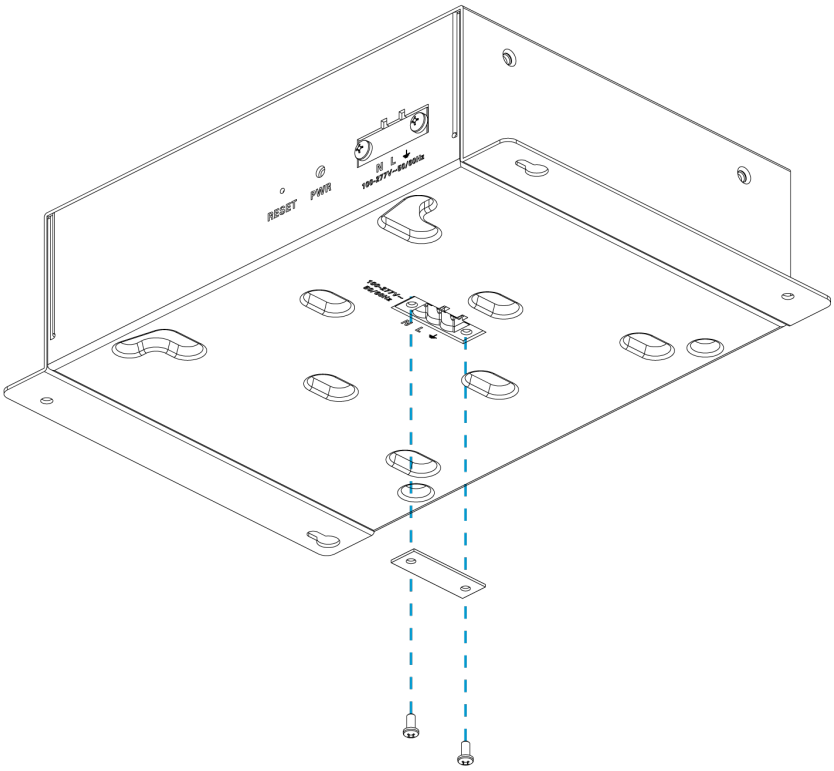
WARNING: Only one set of line power connections may be used.



To connect the terminal block for the power connection:

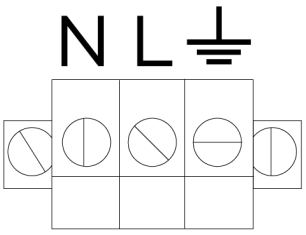
> **NOTE:** If using the bottom power connection, make sure the connection is made before mounting the switch.

1. Remove the two screws securing the shield to uncover the power connection (the bottom power connection is shown below).

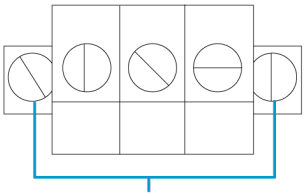


Remove the shield to use power connection

2. Wire the line power to the terminal block connector. For details, refer to Connections on page 27.



3. Plug the wired terminal block connector into the switch and tighten the screws to secure it.

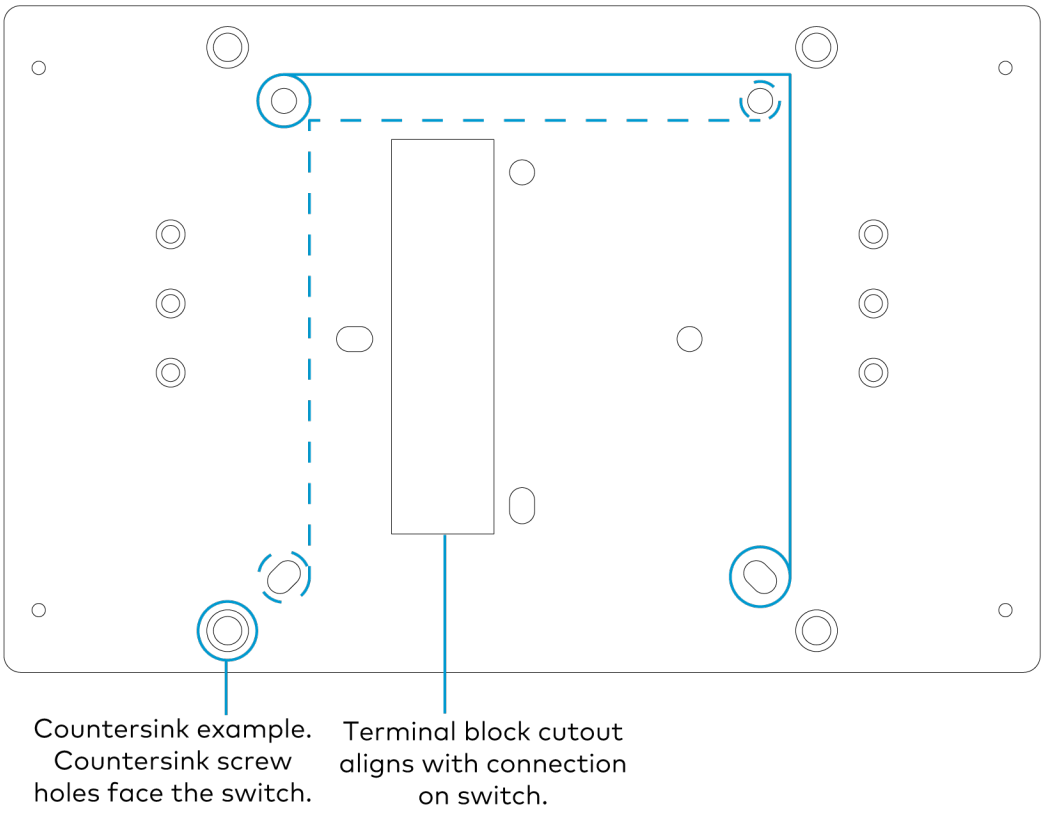


Tighten the screws to secure the terminal block to the switch.

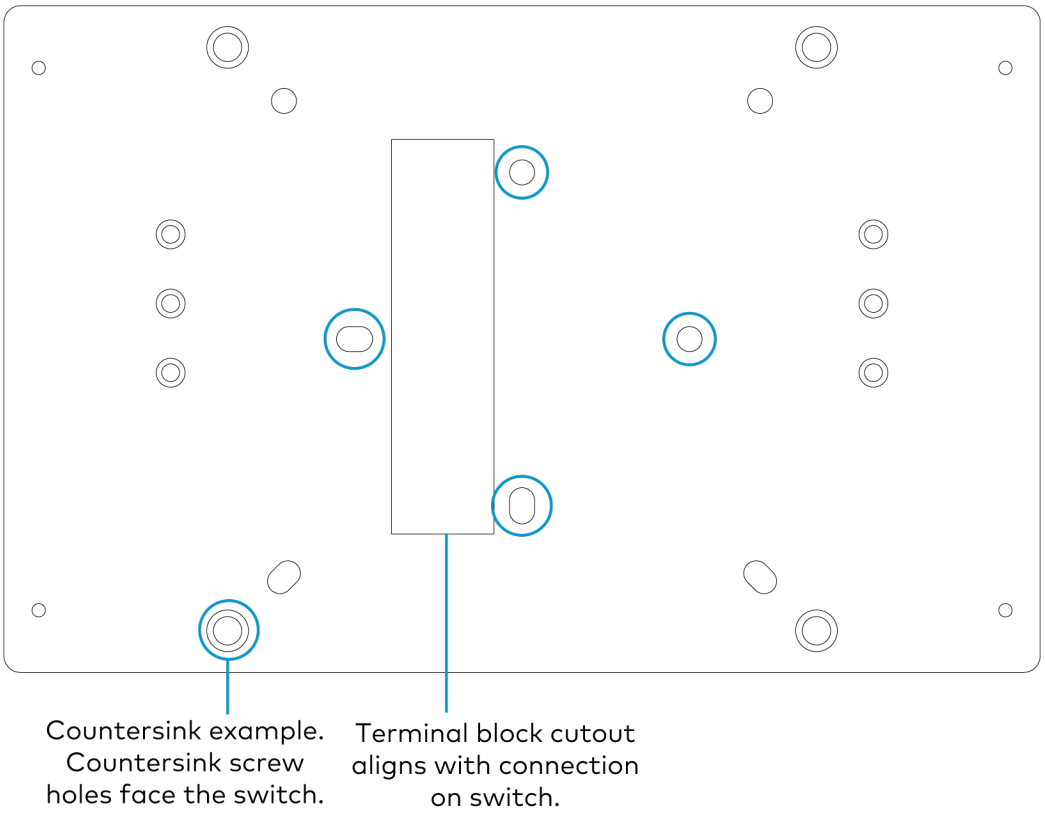
Mount to Electrical Box

The CEN-SWPOE-5AC can be installed to a four-inch square electrical box or 68 mm (2.68 in.) standard round EU electrical box. Install the electrical box as described in the manufacturer's instructions and feed the wiring through the electrical box.

Screw Holes for Four-Inch Square Electrical Box



Screw Holes for Standard Round EU Electrical Box



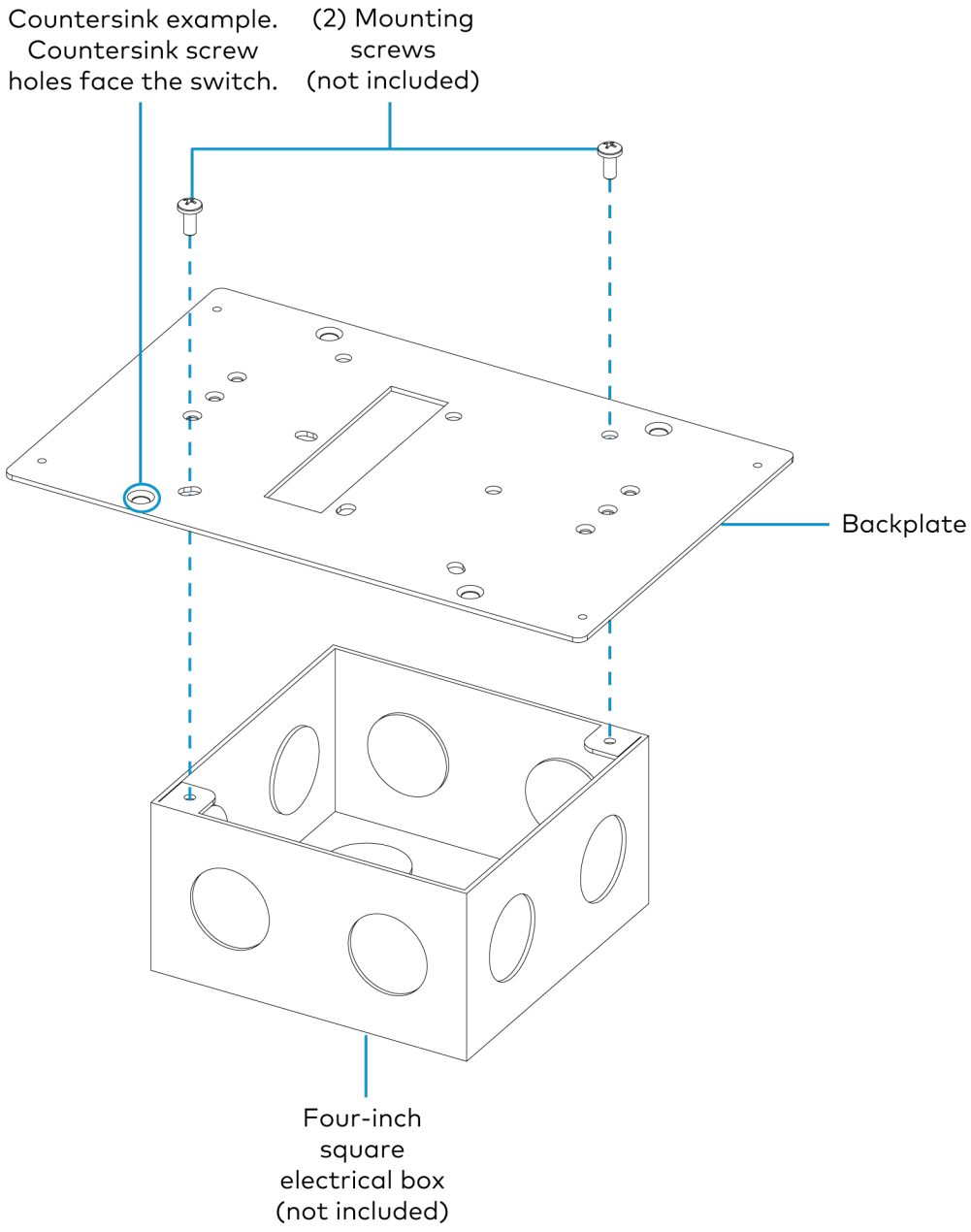
To mount the CEN-SWPOE-5AC to an electrical box:

1. Refer to Determine Mounting Orientation and Line Power Location on page 10. If using the bottom power connection, make sure the connection is made before mounting the switch.
2. Align the backplate to the installed electrical box.
3. If using the line power connections from the bottom of the device, feed the N, L, and G wiring through the rectangular cutout.

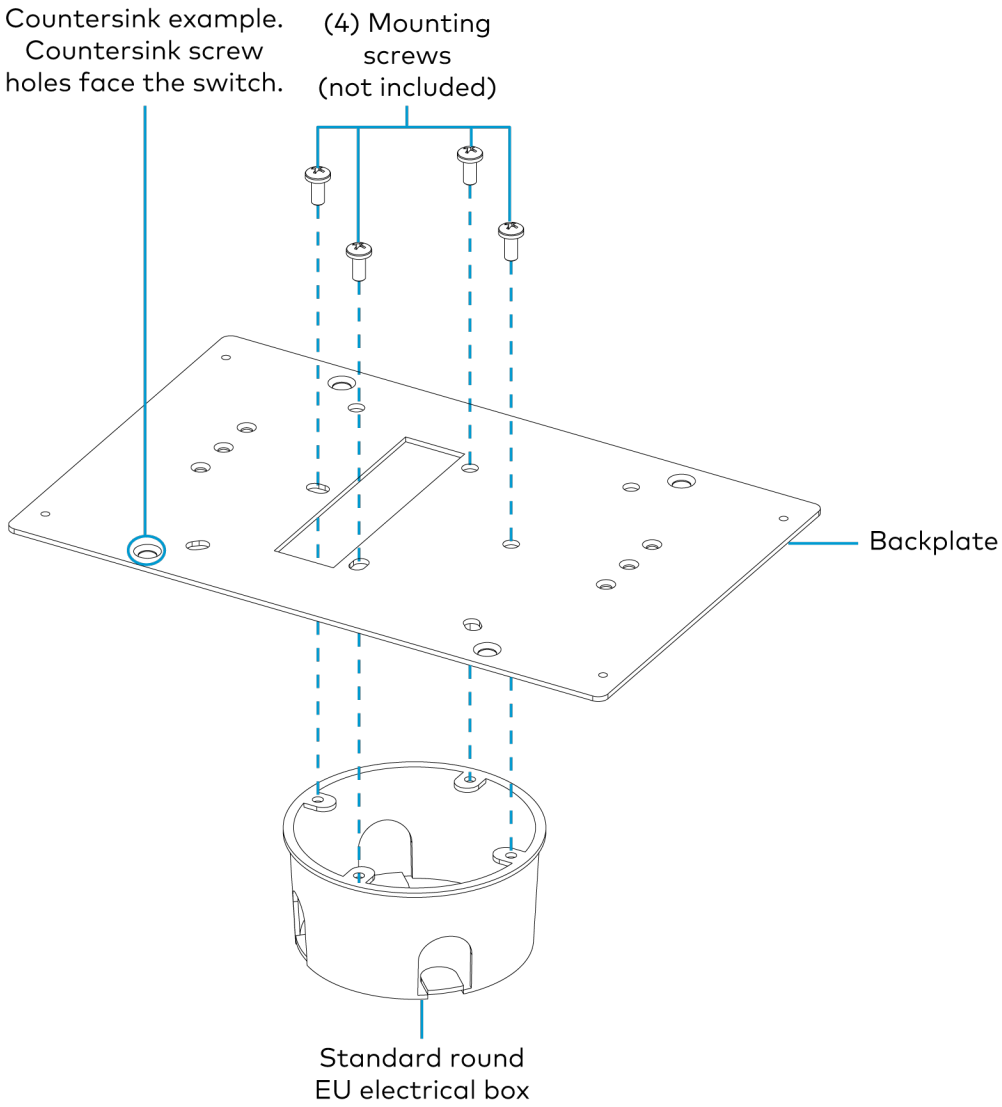
4. Secure the backplate using mounting screws (not included).

> **NOTES:**
>
> - Ensure the countersink screw holes face the switch.
> - Ensure the terminal block cutout aligns with the connection on the switch. The backplate should not cover the terminal block or shield screws.

Mount to Four-Inch Square Electrical Box



Mount to Standard Round EU Electrical Box

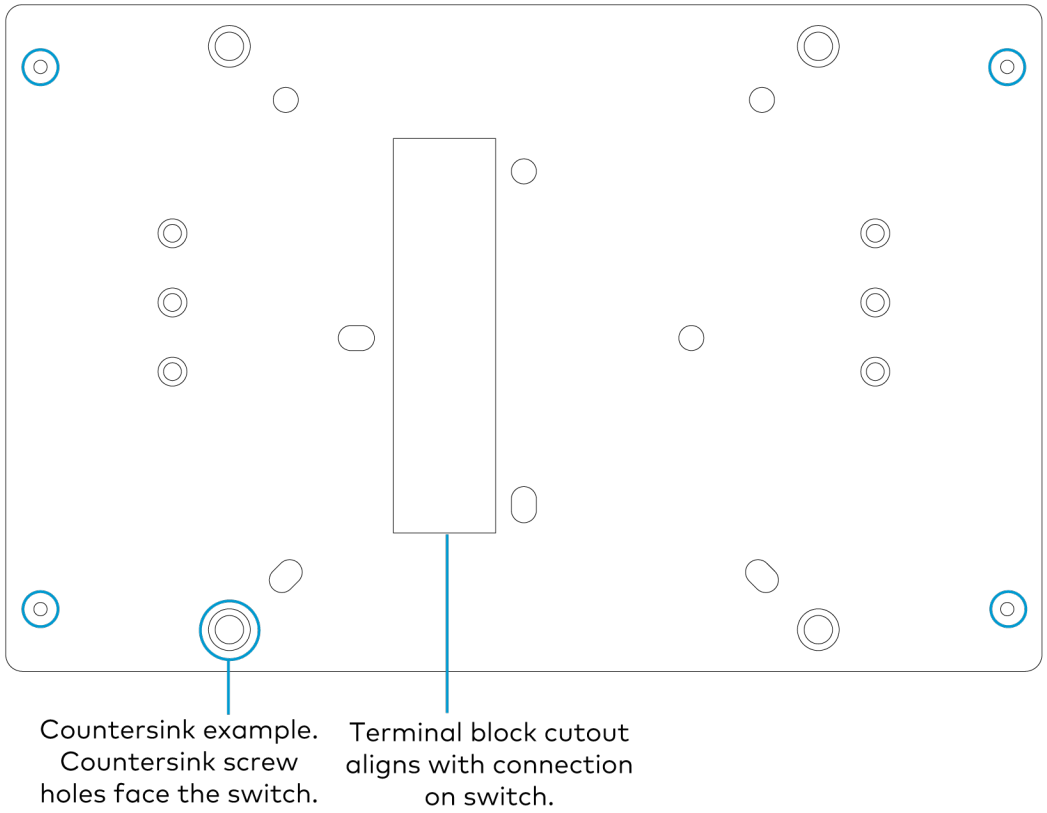


5. Secure the CEN-SWPOE-5AC to the backplate with two or four 6 mm M3 screws (included).

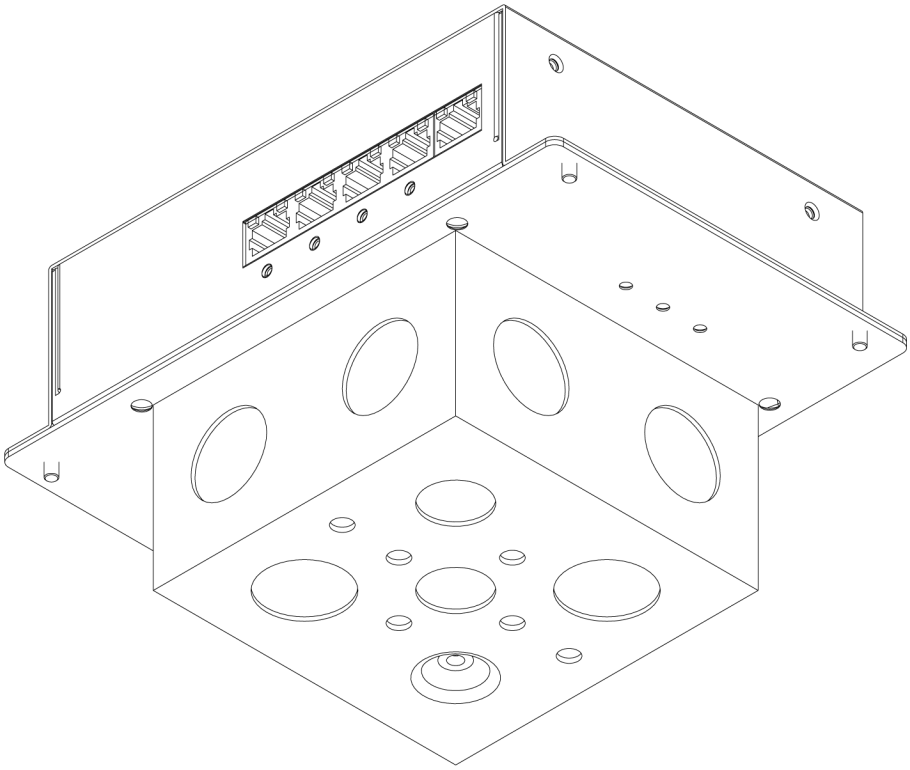
NOTES:

- If the backplate is flush with a flat surface, use 3 mm washers (not included) when securing the M3 screws.
- Ensure the countersink screw holes face the switch.
- Ensure the terminal block cutout aligns with the connection on the switch. The backplate should not cover the terminal block or shield screws.

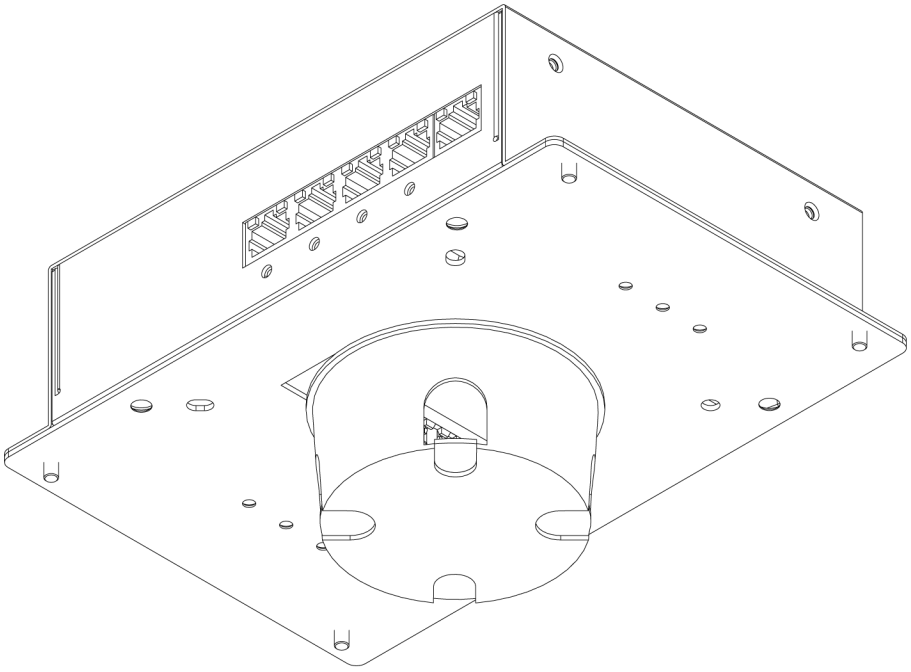
Screw Holes for Attaching the CEN-SWPOE-5AC to the Backplate



Installed Assembly with Four-Inch Square Electrical Box



Installed Assembly with Standard Round EU Electrical Box



6. Make connections necessary for the application. For details, refer to Connections on page 27.

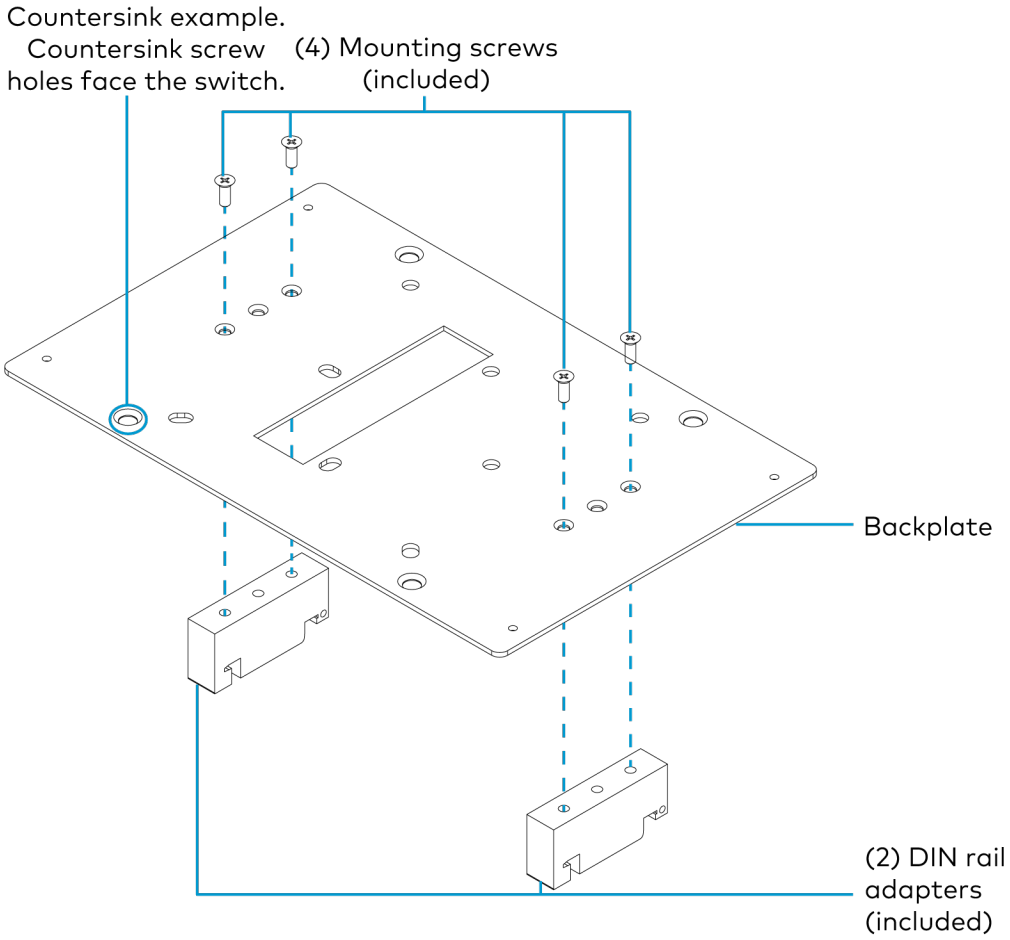
Mount to DIN Rail in DIN Cabinet

To mount the CEN-SWPOE-5AC to a DIN rail:

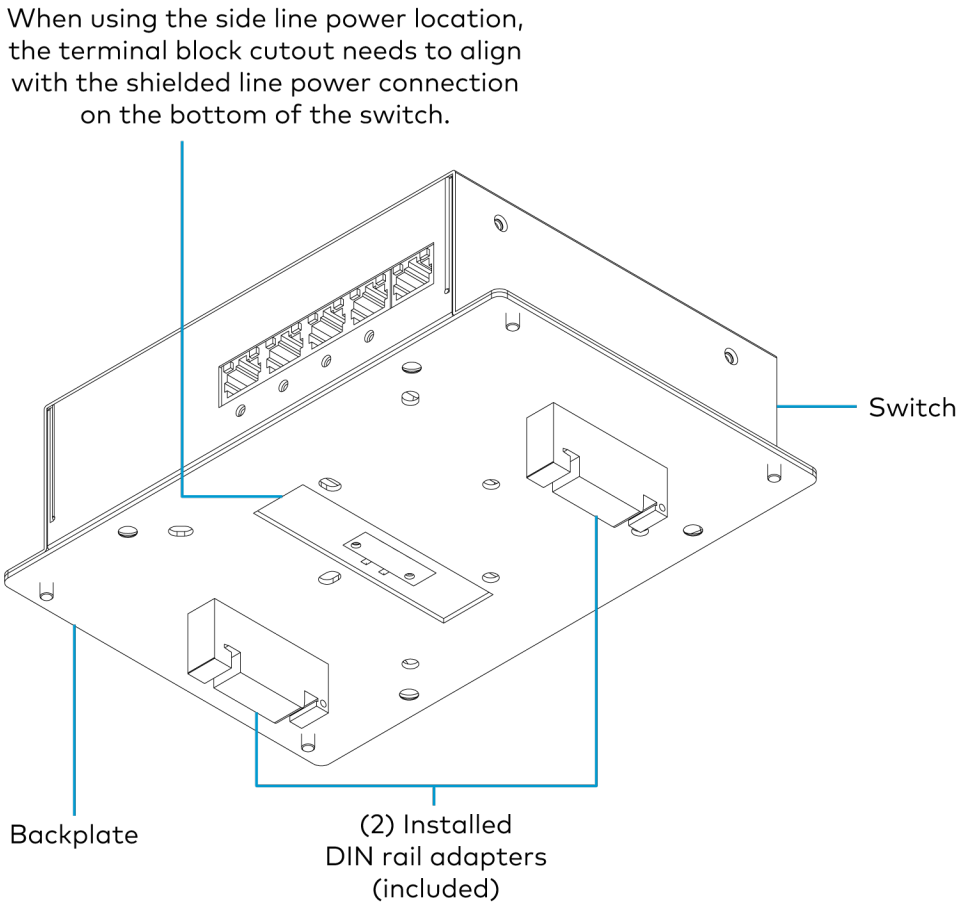
1. Refer to Determine Mounting Orientation and Line Power Location on page 10. Because the DIN rail covers the bottom of the switch, the side line power location is recommended.
2. Secure both DIN rail adapters (included) to the backplate. Each adapter requires two M3 10 mm flathead sheet metal screws (included).

> **NOTES:**
>
> - A #1 bit screwdriver is recommended.
> - Ensure the countersink screw holes face the switch.
> - Ensure the terminal block cutout aligns with the connection on the switch. The backplate should not cover the terminal block or shield screws.

Attach the DIN Rail Adapters



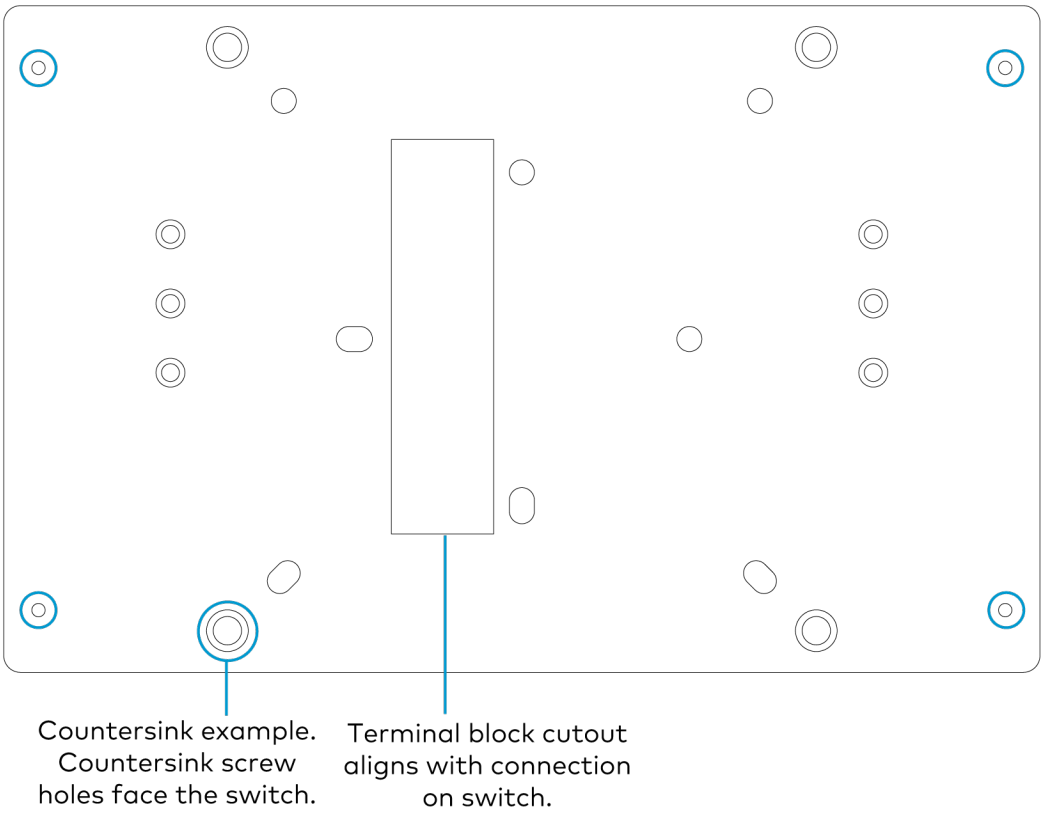
Installed Assembly



3. Secure the CEN-SWPOE-5AC to the backplate with four 6 mm M3 screws (included).

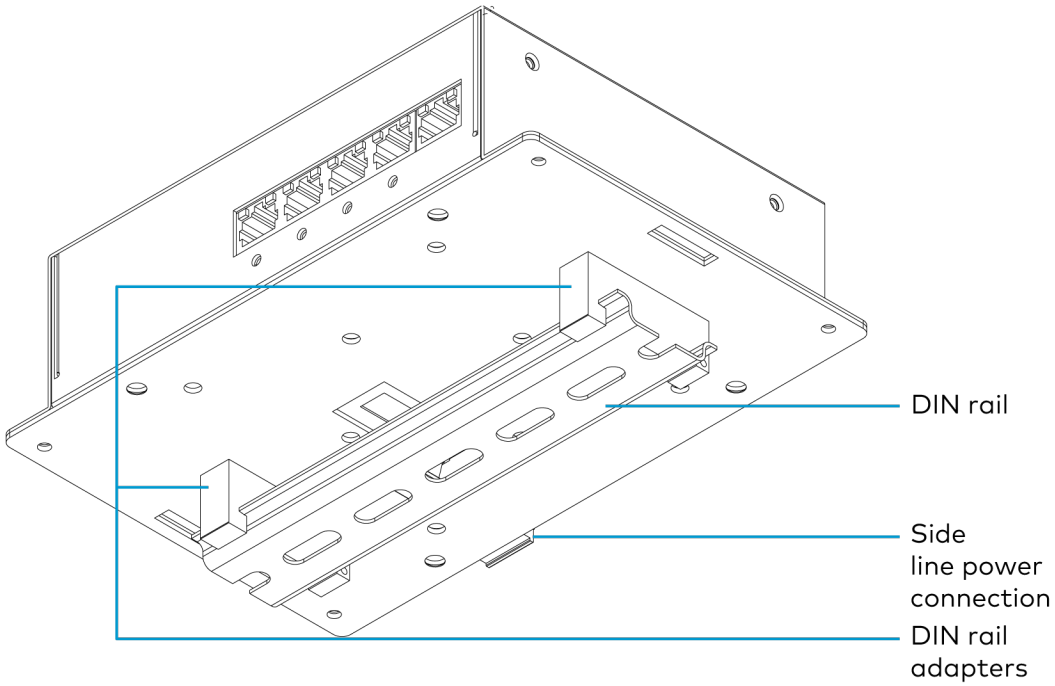
> **NOTES:**
>
> - Ensure the countersink screw holes face the switch.
> - Ensure the terminal block cutout aligns with the connection on the switch. The backplate should not cover the terminal block or shield screws.

Screw Holes for Attaching the CEN-SWPOE-5AC to the Backplate



4. Make connections necessary for the application. For details, refer to Connections on page 27.
5. Align the backplate with the installed DIN rail adapters to the DIN rail.
6. Place the top of the DIN rail adapters over the top of the DIN rail.

7. Tilt the bottom of the DIN rail adapters toward the DIN rail until they snap into place.



Mount to Flat Surface

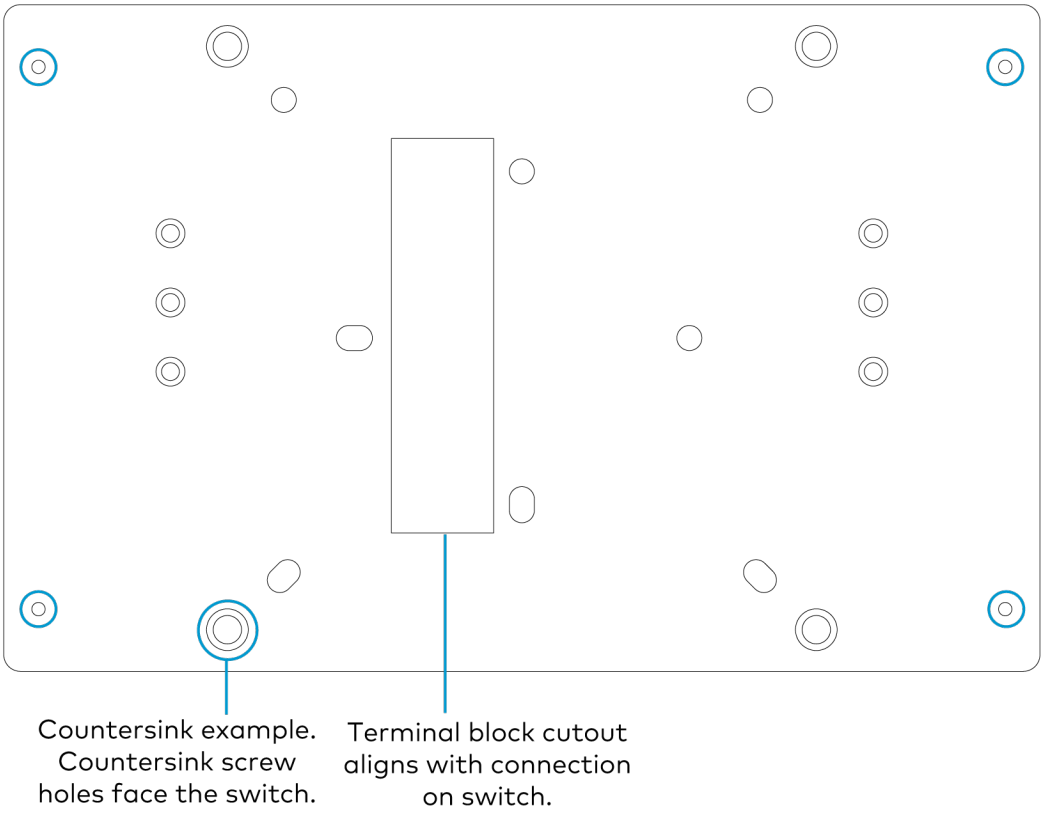
To mount the CEN-SWPOE-5AC to the flat surface of a cabinet:

1. Refer to Determine Mounting Orientation and Line Power Location on page 10. If using the bottom power connection, make sure the connection is made before mounting the switch.
2. Align the backplate to the mounting location on the flat surface.
3. Secure the CEN-SWPOE-5AC to the backplate and the flat surface with 3 mm washers (not included) and four M3 10 mm screws (included).

   NOTES:

   - Ensure the countersink screw holes face the switch.
   - Ensure the terminal block cutout aligns with the connection on the switch. The backplate should not cover the terminal block or shield screws.

   Screw Holes for Attaching the CEN-SWPOE-5AC to the Backplate

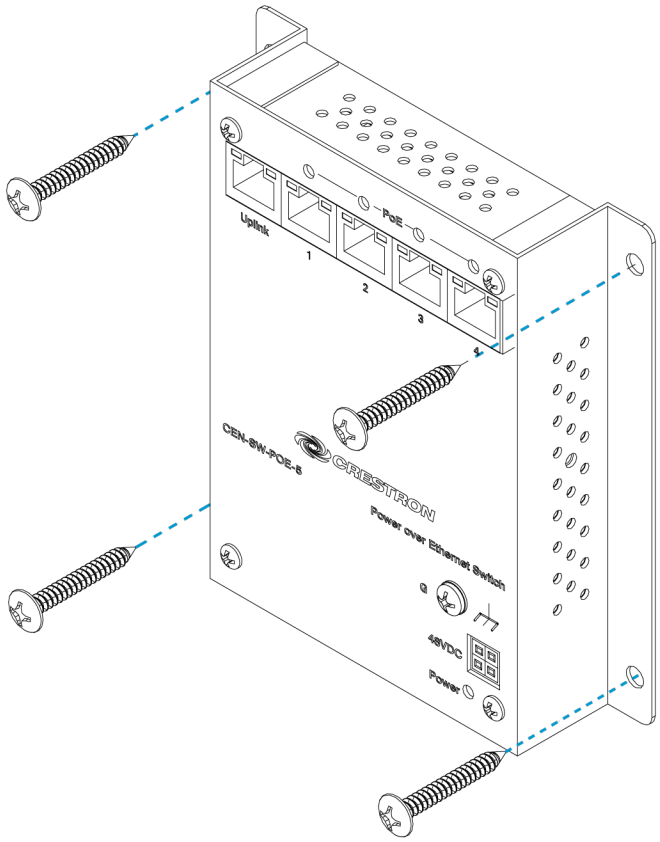


4. Make connections necessary for the application. For details, refer to Connections on page 27.

Replace a CEN-SW-POE-5

To replace a wall mounted CEN-SW-POE-5 with a CEN-SWPOE-5AC:

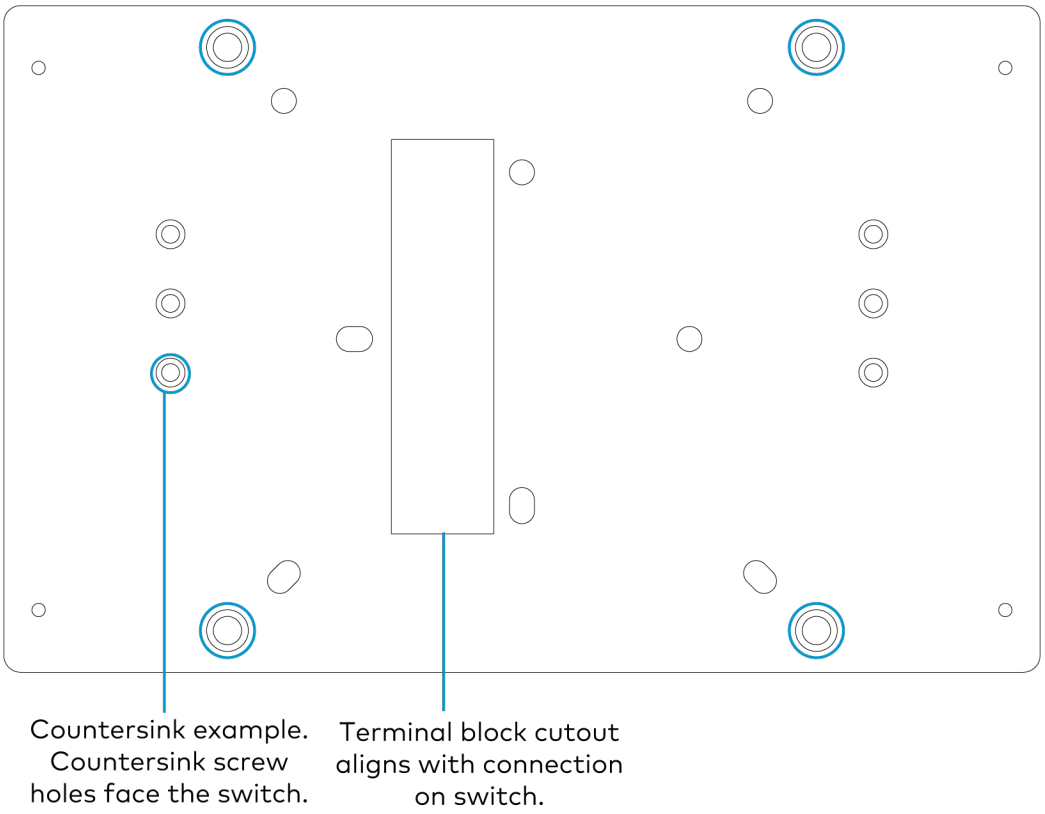
1. Remove the CEN-SW-POE-5.



2. For the CEN-SWPOE-5AC, refer to Determine Mounting Orientation and Line Power Location on page 10. If using the bottom power connection, make sure the connection is made before mounting the switch.

3. Align the backplate with the CEN-SW-POE-5 mounting holes.

CEN-SW-POE-5 Mounting Holes



4. Secure the backplate using mounting screws (not included).

NOTES:

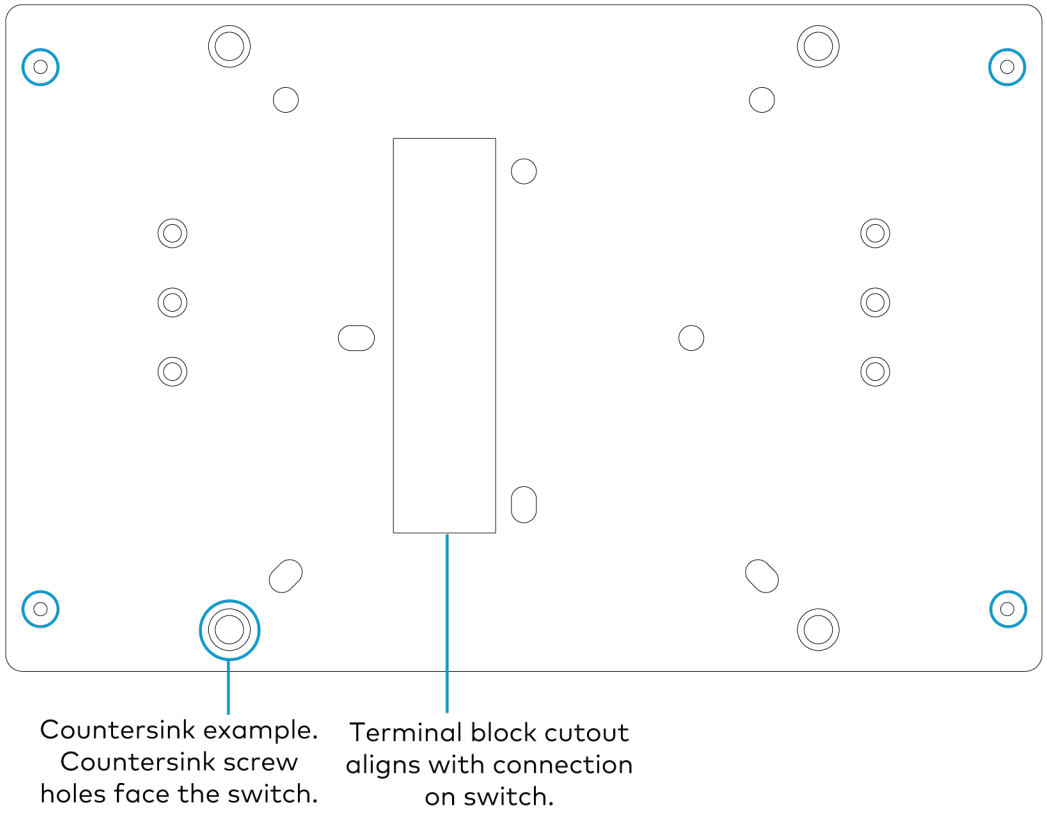
- Ensure screw holes with countersink face the switch.
- Ensure the cutout for the terminal block aligns with the connection on the switch. The backplate should not cover the screws for the terminal block or shield.

5. Secure the CEN-SWPOE-5AC to the backplate with four 6 mm M3 screws (included).

NOTES:

- If the backplate is flush with a flat surface, use 3 mm washers (not included) when securing the M3 screws.
- Ensure the countersink screw holes face the switch.
- Ensure the terminal block cutout aligns with the connection on the switch. The backplate should not cover the terminal block or shield screws.

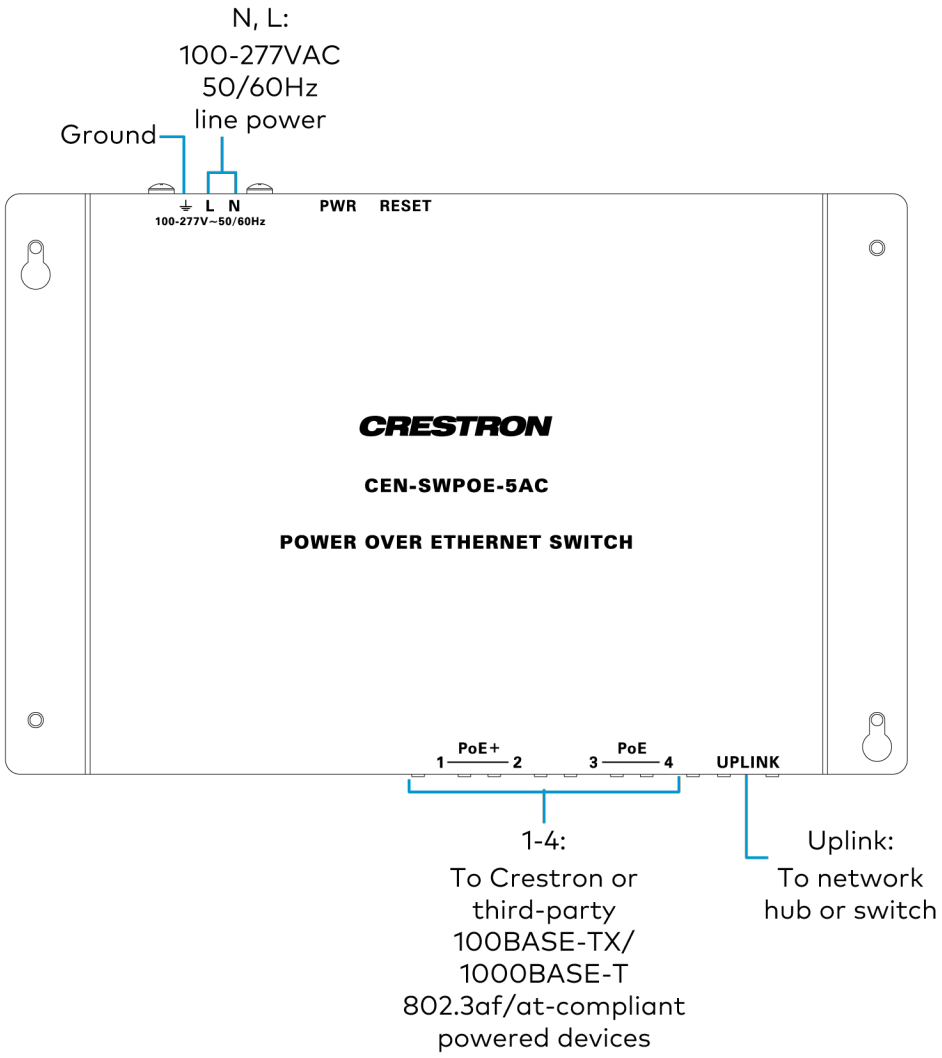
Screw Holes for Attaching the CEN-SWPOE-5AC to the Backplate



6. Make connections necessary for the application. For details, refer to Connections on page 27.

Connections

Make connections to the CEN-SWPOE-5AC as appropriate for the application.



Resources

The following resources are provided for the CEN-SWPOE-5AC.

> **NOTE:** You may need to provide your Crestron.com web account credentials when prompted to access some of the following resources.

Crestron Support and Training

- Crestron True Blue Support
- Crestron Resource Library
- Crestron Online Help (OLH)
- Crestron Training Institute (CTI) Portal

Programmer and Developer Resources

- help.crestron.com: Provides help files for Crestron programming tools such as SIMPL, SIMPL#, and Crestron Toolbox™ software
- developer.crestron.com: Provides developer documentation for Crestron APIs, SDKs, and other development tools

Product Certificates

To search for product certificates, refer to the Product Certificates section of the Crestron Resource Library.

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change without notice.