O3 Sense
Quick Start Guide

This guide describes how to install and set up O3 Sense multisensor devices. You will need an Android or iOS device with the O3 Setup app installed. Download the app for free from Google Play or the App Store.
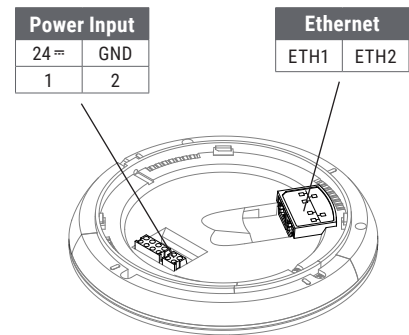
Installation

Follow all applicable electrical codes and regulations. Connect to a Class 2 power source only.

Wiring guidelines

The O3 requires a 24 VDC power supply and draws 2 W typical, 9 W max.

- For power wiring, use 22–14 AWG 2-conductor copper wire.
- For network cabling, use Cat5e or Cat6 cables.

Earth ground all devices in the same circuit at the power supply. Up to 30 devices can be daisy chained using the ETH2 port as long as the distance between the devices does not exceed 100 m (330 ft). A bypass switch allows the devices to relay data in a power failure scenario. However, the maximum cable length is reduced by 15 m (50 ft) for each bypassed device.
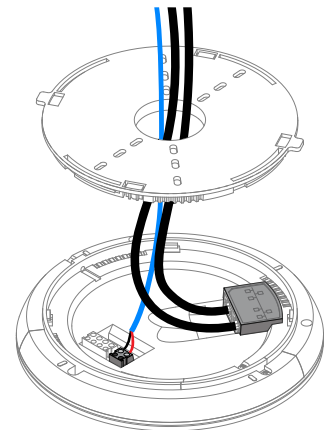
Power Input		Ethernet	
24 ⎓	GND	ETH1	ETH2
1	2		

Placement guidelines

You can mount the O3 to a ceiling tile, finished ceiling, or junction box.

- The device should be mounted 2.4 to 4.6 m (8 to 15 ft) off the floor.
- For best performance, place the device in center of the room. Try to keep it at least 2.1 m (7 ft) away from windows or exterior walls.
- Choose a location where the motion sensor view is not obstructed by light fixtures, shelves, etc.
- Do not mount the device next to hot or cold sources.
- Keep the device at least 1.3 m (4 ft) away from ceiling diffusers and other sources of airflow.

Mounting the O3

1. If you are mounting directly to the ceiling, cut a hole 32 mm (1¼ in.) in diameter and pull the wires through the hole.
2. Pull the wires through the hole in the backplate.
3. Mount the backplate to the mounting surface using M4 (#8) screws.
4. Connect the power wires and Ethernet cable(s).
5. Attach the O3 to the backplate. Line up the tabs on the O3 with the notches on the backplate, hold the O3 firmly against the backplate, then twist clockwise.
6. Turn on power to the O3. The light ring plays a blue swirl pattern, then displays blue-red-yellow as the device runs a power-on self-test (POST). The POST status displays next. Green = passed, blue= Bluetooth issue, red = sensor issue, yellow= network connection issue.

Setup

To set up the O3 Sense using the O3 Setup app, you must have Bluetooth® and location services enabled on your mobile device. For best performance, your device should support Bluetooth Low Energy (BLE) version 5.0 or later.

Connecting to the O3

1. Open the O3 Setup app and select **Continue** to enter Lite Mode.
2. In the lower right corner of the screen, select **Connect**. Nearby O3 devices are listed by their Bluetooth MAC address.
3. Select an O3 to initiate a connection. The selected O3 plays a sound and the light ring flashes blue.
4. If this is the correct device, select **Yes, connect to this hub**. Data loads from the O3 and the status changes to **Connected**. You can now view device information and sensor data from the O3 in the **Diagnostics** tab. This data is transferred securely over Bluetooth from the O3 to your mobile device.

Configuring the O3

1. After connecting to the O3, go to **Settings > Network**. If you want to assign a static IP address, select ✏, select Static, enter the IP settings, then select **Save**. Otherwise, leave it as **DHCP**. The IP address must be unique for each O3.
2. Next to BACnet, select ✏, select the protocol you want to use (BACnet/Ethernet or BACnet/IP), enter the BACnet settings, then select **Save**. The BACnet **Device ID** must be unique for each O3.
3. Next to Security, select ✏, enter a 6-digit PIN to secure BLE read/write access to the hub, then select **Save**.
4. Select **Apply settings to hub**. After the settings are applied, the status shows **Configured** and a green check mark appears next to each applied setting.

Calibrating the O3

1. After connecting to the O3, go to **Settings > Calibration** and select ✏.
2. Measure the temperature below the O3 at occupant height, enter the temperature in the **Actual temperature** field, then select **Save**.
3. If you plan to use the O3 for lighting control, adjust the lighting in the space to the desired brightness, record the current reading in the **Hub reading at desired light level** field, then select **Save**. This setpoint will be used by the control system as a baseline for control loops.
4. Select **Apply settings to hub**.

Upgrading the firmware (requires internet connection)

1. After connecting and applying settings to the O3, in the O3 Setup app, select ⋮ in the upper right corner of the screen, then select **Upgrade firmware**.
2. Under **Firmware upgrade method**, select **Select version from list**.
3. Select the firmware version you want to upgrade to, then select **Apply firmware upgrade**.
4. Click **OK** to continue. The light ring is orange while the upgrade is in progress.

Note: Do not power off or reboot the O3 while the light ring is orange. If the light ring flashes red three times, there was an error during the upgrade process. Check your network connections and settings.

Rebooting the O3

To reboot the O3, in the O3 Setup app, select ⋮ in the upper right corner of the screen, then select **Reboot hub**. A confirmation appears. To continue, select **Yes, reboot hub**.

Need help? Contact o3hub@deltacontrols.com

For regulatory and other product information, visit support.o3hub.com

The information in this document is subject to change without notice.

O3 Edge
Quick Start Guide

This guide describes how to install and set up O3 Edge multisensor devices. You will need an Android or iOS device with the O3 Setup app installed. Download the app for free from Google Play or the App Store.
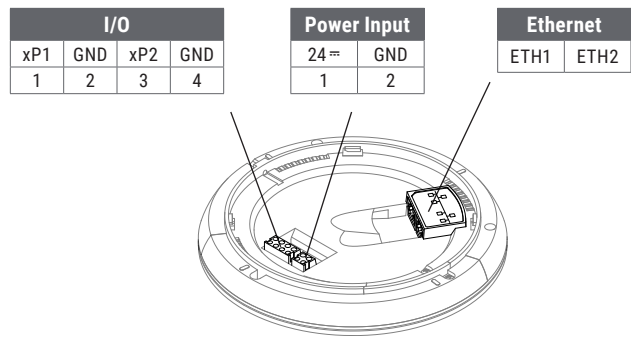
Installation

Follow all applicable electrical codes and regulations. Connect to a Class 2 power source only.

Wiring guidelines

The O3 Edge requires a 24 VDC power supply and draws 2 W typical, 10 W max.

- For power and I/O wiring, use 22–14 AWG 2-conductor copper wire.
- For network cabling, use Cat5e or Cat6 cables.

I/O				Power Input		Ethernet	
xP1	GND	xP2	GND	24 ⎓	GND	ETH1	ETH2
1	2	3	4	1	2		

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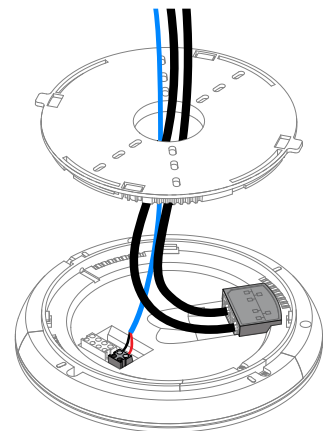
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Setup

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4. Select **Apply settings to hub**. After the settings are applied, the status shows **Configured** and a green check mark appears next to each applied setting.

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