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molex
CoreSync

**Advanced Sensor
Installation Guide**

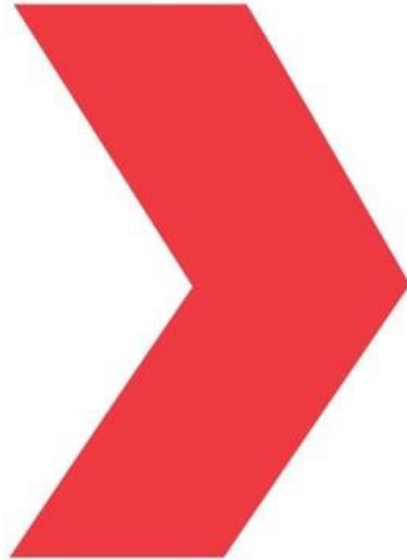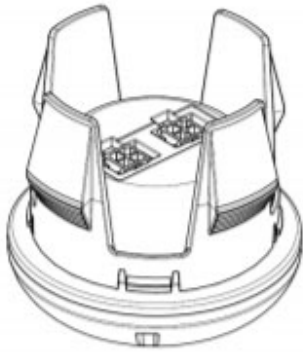_____

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Table of Contents

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Introduction

This applications notes will cover how to properly mount an Advanced Sensor onto a desired ceiling type. There are 3 different types of advanced sensors (Beacon, Lighting, and AQ), however all follow the same mounting procedure. The user has two options for mounting style: Panel Mount and Bracket Mount as seen below.
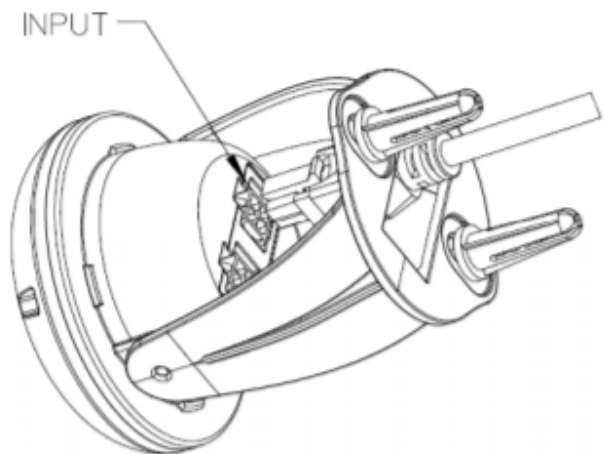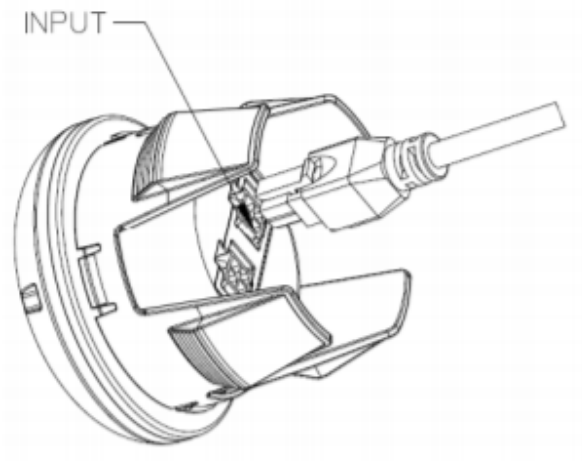
Sensor with the flush
mount hardware
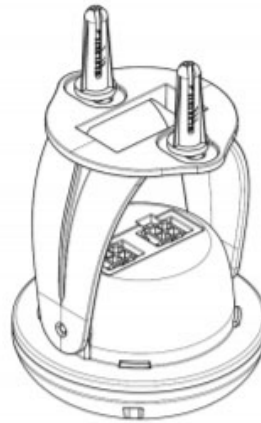
Sensor with the bracket
mount hardware

This document will go over the procedure for both mounting types.

Molex – Advanced Sensor Mounting – Installation Guide

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Safety Instructions

DEVICES MUST BE INSTALLED BY A QUALIFIED INSTALLER. (CHECK WITH LOCAL AND NATIONAL CODES FOR PROPER INSTALLATION).

1. **CAUTION** - Observe precautions for handling electrostatic sensitive devices.

2. **WARRANTY** – Voided if fixture has been modified from its original configuration or in the event of hot plug/hot swap.

3. **WARNING** – Risk of Electric Shock. Do not handle energized module with wet hands or when standing on wet or damp surfaces.

4. Use only with Class 2 Power Unit – 60VDC Max.

5. Do not use outdoors.

6. Maximum operating temperature 50°C ambient.

7. Conforms to UL916 Standard - Certified to CSA standard C22.2 NO. 250. For CSA, device is intended to be installed in a restricted access area.

8. Input: PoE voltage range of 42-57V

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Procedure
Surface Mount

1. When using the surface mount option, connect the sensor to the mounting hardware before pushing to ceiling.
2. A 2" clearance hole must be drilled out of the desired ceiling.

$\phi \dfrac{50.8}{2}$
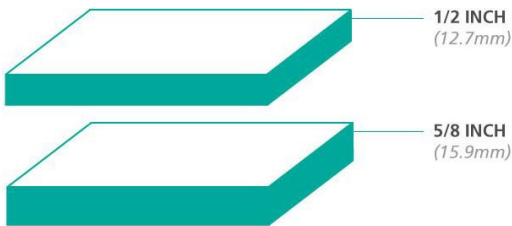
Surface mounting
clearance hole
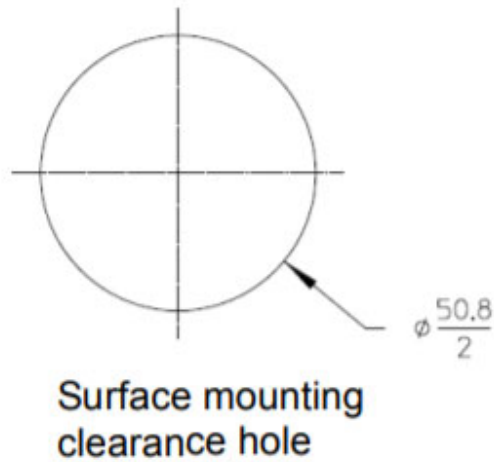
3. Once the hole has been created, snap in the wire harness 4ckt male connector into the 4ckt female connector as seen below. The connector from the Gateway side must plug into the INPUT connector:


INPUT

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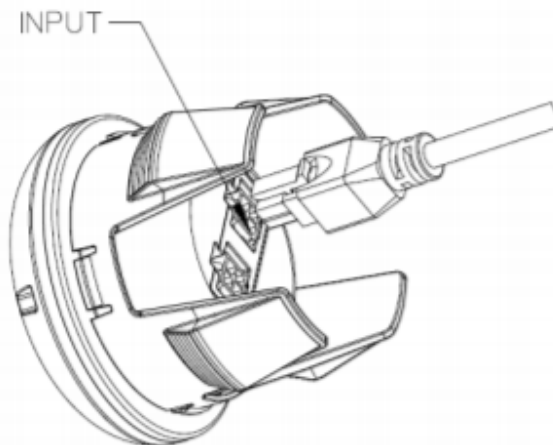
4. The surface mount bracket has been designed to be universal and fit into any type of ceiling material. Ceiling tiles are typically made with mineral wool, fiberglass, gypsum, perlite, clay, cellulose, or starch. Ceiling made from fiber glass, or similar material, needs to have a minimum thickness of **5/8"**. Drywall thickness can vary between **1/2"** and **5/8"** to be compatible with bracket. If sheet metal is used, metal thickness cannot exceed **1.5mm.**

Drywall Thickness

1/2 INCH
(12.7mm)

5/8 INCH
(15.9mm)

Fiber Glass Thickness

5/8 INCH
*(15.9mm)*

**MINIMUM
NO MAXIMUM**

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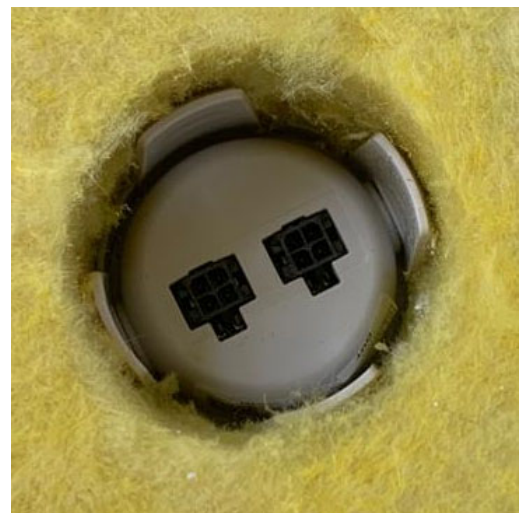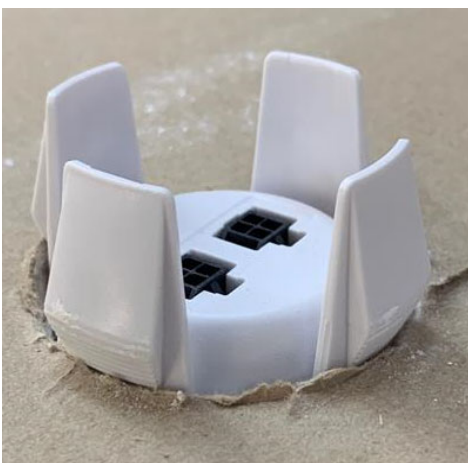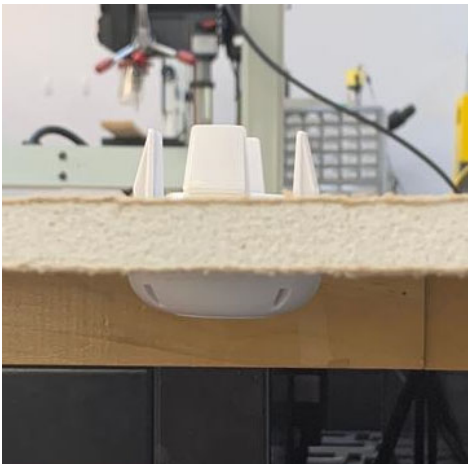
Bracket Mount

1. When using the bracket mount option, screw the bracket (screws and anchors) into the surface first before connecting the sensor to the mounting bracket.

2. If using the bracket mount version, two holes with a maximum diameter of **3/16"** must be drilled out of desired surface. These two holes must be **1 ¼"** away from each other.
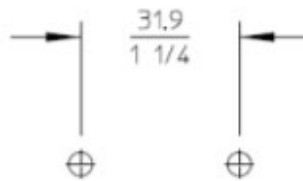

Bracket mount
hole pattern

3. Once the holes have been created and bracket has been mounted, snap in the wire harness 4ckt male connector into the 4ckt female connector as seen below. The connector from the Gateway side must plug into the INPUT connector:

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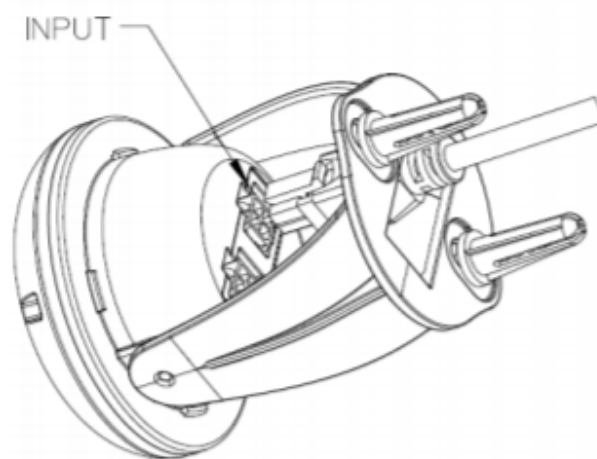
Gateway Connection

The other end of the wire harness goes into a Gateway, if it is a 5x2 connector (Molex part number 180887-04XX or 180888-04XX). If it is a 2x2 connection (Molex part number 180777-04XX or 180778-04XX), then it can connect to a driver or another sensor's "Output". Gateway, driver, and other sensors are supplied separately. For more information on the wire harnesses, see data sheet 87651-5943
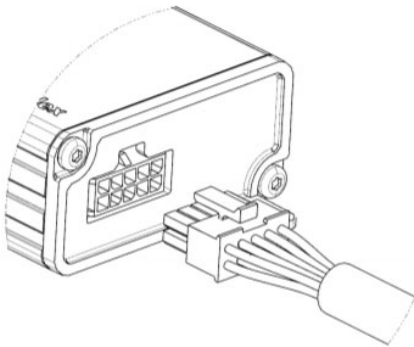
If the end of the harness is 5x2, it connects to a Gateway. (180990-0001 or 180993-0001)
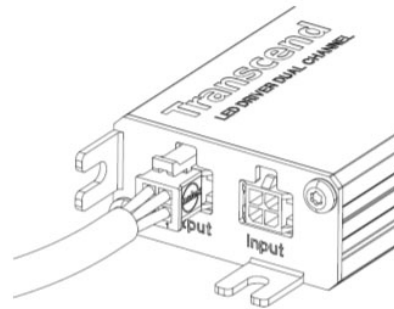
If the end of the harness is 2x2, it connects to "OUTPUT" side of the driver (180996-XXXX) or another sensor

Warning Do not hot plug the device. Make sure the gateway is disconnected and powered off from POE power before connecting a sensor to CoreSync bus

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Ordering Information

Advance Sensor: ***182089-x000***
CoreSync Bus Harness: ***180777-04xx***
CoreSync Gateway: ***180777-04xx***

Revision History

- 8/20/2020 – Initial Release