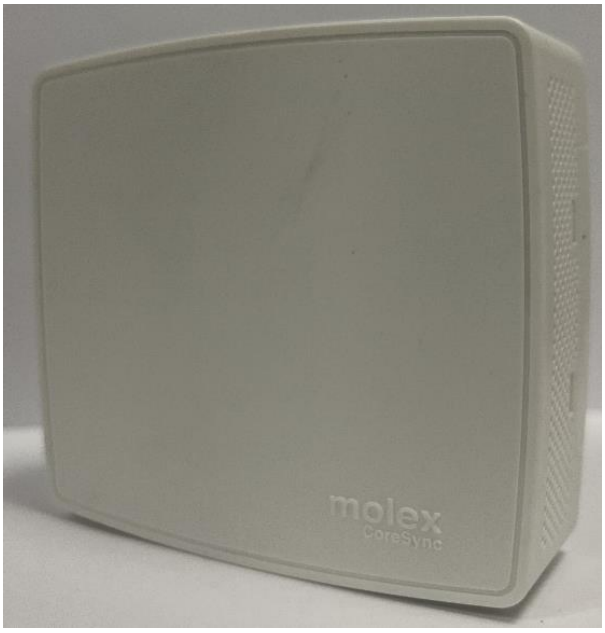
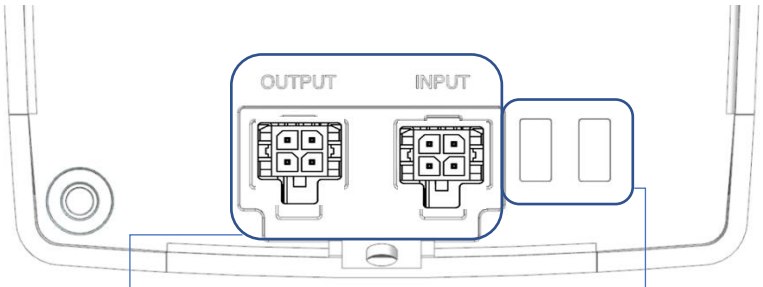
CoreSync Air Quality Monitor

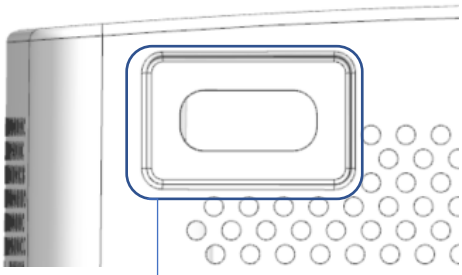
INSTALLATION INSTRUCTIONS





4-pin Micro Fit 3.0 Connector
for CoreSync Bus IO
42-57 VDC + RS485 Data Line

DIP Switches
(for future use)



Mini-USB
(for future use)

Order No. Dual	Description
1820894000	CoreSync Air Quality Monitor
1820894001	CoreSync Air Quality Monitor NA

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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.
- DO NOT DISASSEMBLE THE AQ MONITOR.
- DO NOT connect the CoreSync Harness when Gateway is energized
- DO NOT handle energized unit with wet hands or when standing on wet or damp surfaces.
- Risk of electric shock.
- DO NOT use in elevated temperature environment – more than 50°C
- DO NOT use Outdoors
- Only to be used with CoreSync System
- Use appropriate Junction Box depending on the installation space (Plenum / Non-plenum)

AQ MONITOR MUST BE INSTALLED BY A CORESYNC CERTIFIED TECHNICIAN OR QUALIFIED ELECTRICIAN (CHECK WITH LOCAL AND NATIONAL CODES FOR PROPER INSTALLATION)

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2. Product Description:

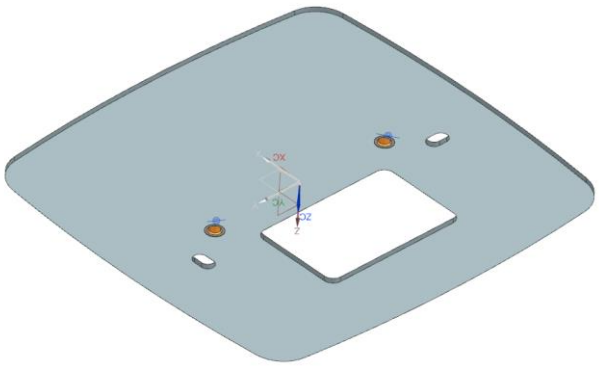
The Air Quality Monitor is a low voltage sensor platform leveraging network connected Molex CoreSync infrastructure for digital building applications. Carbon Dioxide (CO2), Particulate Matter (PM1, PM2.5, PM10), Total Volatile Organic Compounds (TVOC), Temperature, and Humidity data is granularly collected by the sensor array and can be transferred to BMS and/or other 3rd-party systems including cloud platforms for augmented building control and automation as well as advanced reporting and analytics.

3. Included Hardware:

a. Air Quality Monitor
b. Mounting Bracket
c. M3.5 Mounting Screws
d. M4 25mm Pan Head Screw

N. America version only

e. #6-32 1.25” Screws (N.American Only)
f. Plate Cover (N.American Only)



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4. **Required Hardware** (Not included)**:**

If required by code, the following junction boxes should be used in there corresponding region:

a. North American Installations

i. 4x4 Junction Box:

ii. Single Gang Mud Ring:

b. European Installations

i. 86 Type Junction Box:

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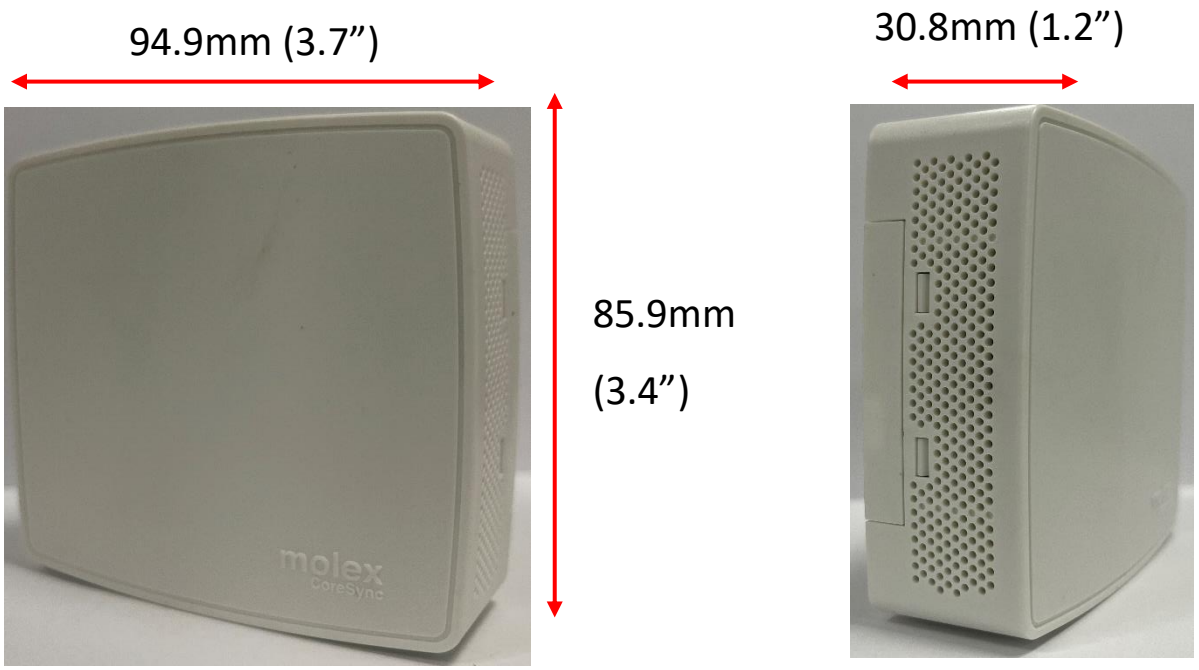
5. Procedures:

Step 1. Confirm if Plenum rated junction boxes are required with airtight knockouts and covers prior to install.

Step 2. Ensure that the Gateway being utilized to power and control this device is **deenergized to prevent hot plugging.**

Step 3. Refer to the dimensions for CoreSync Air Quality Monitor:



Step 4. EC to provide and install standard 4x4 or 86 type junction box and terminate conduit as required.

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Step 5. (For North American installations only) EC to install standard single gang mud ring.
Important: Mud ring should be installed in the horizontal orientation as seen below by EC.

Step 6. EC to provide grommets where required.

Step 7. (For North American installations only) Install the Plate Cover. Use the provided #6-32 1.25” screws to secure the cover plate to the junction box.

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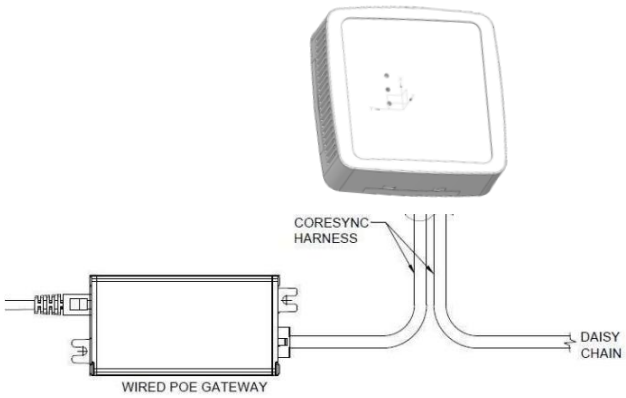
Step 8. Install the metal mounting bracket . Use the provided m3x5 screws to secure the bracket to the 86-type junction box in Europe or the N. American metal plate cover.

Step 9. Pull and plug the CoreSync Harness through the junction box and back mounting plate(s).



Step 10. Mount device onto the metal bracket, ensuring the tab sits inside the housing of the AQ Monitor.

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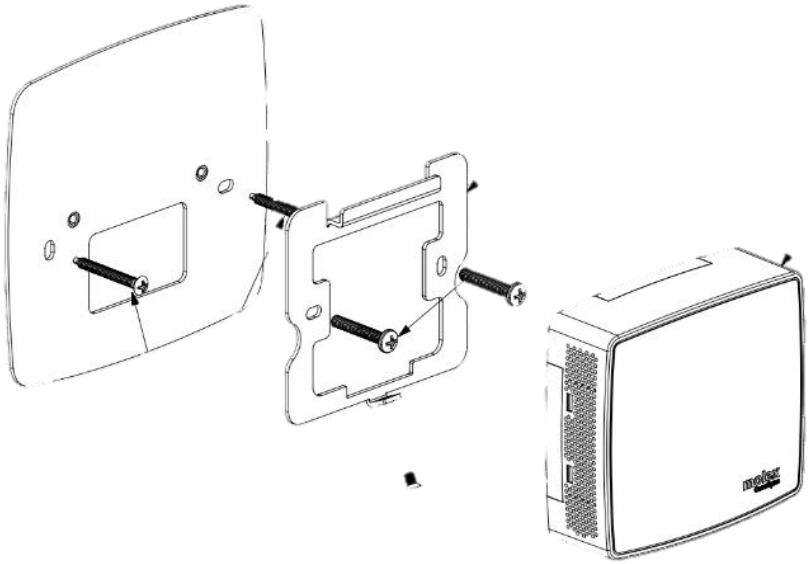
Step 11. Secure the device mounting by using the provided M4 pan head screw

Step 12. Ensure all above steps were followed and match the below image.



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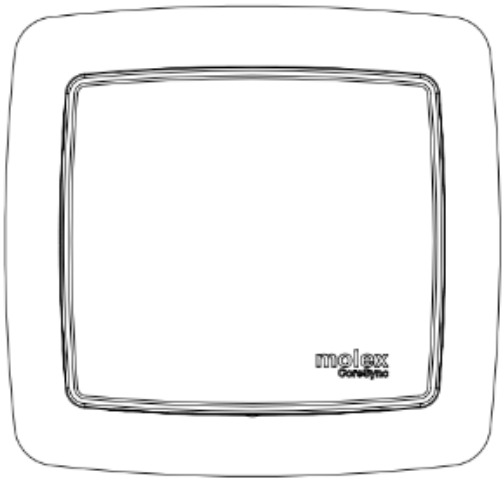
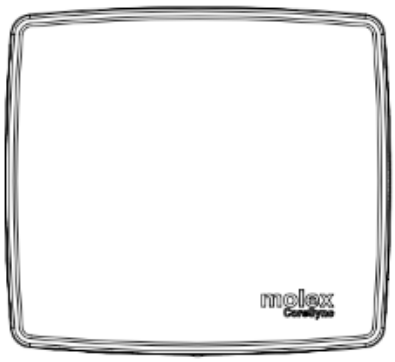
Step 13. The Air Quality Monitor should be flush against the backplate/wall.





6. 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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