

Sensedge Mini Installation Guide

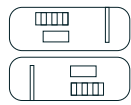
In-Wall Mount (Drywall)

1 What you will need

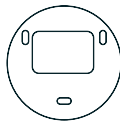
Parts



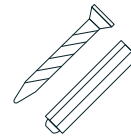
Sensedge Mini



Sensedge Mini
sensor modules x 2



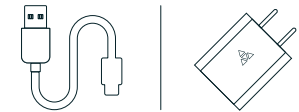
Surface / Drywall
mount



Drywall screws and
anchors (3 pairs)

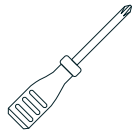


Fastening
screws x 2

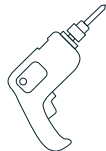


USB cable & Charger
(Power via USB-C only)

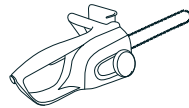
Tools



Cross screwdriver



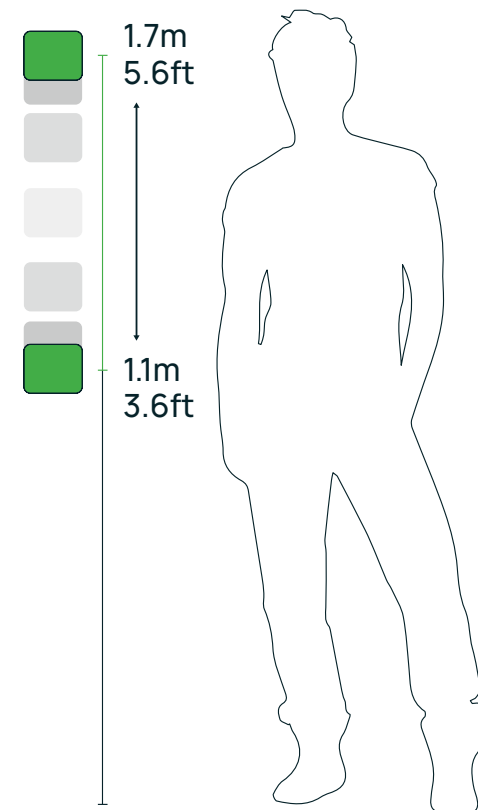
Power drill



Concrete saw

2 Where to place your Sensedge Mini

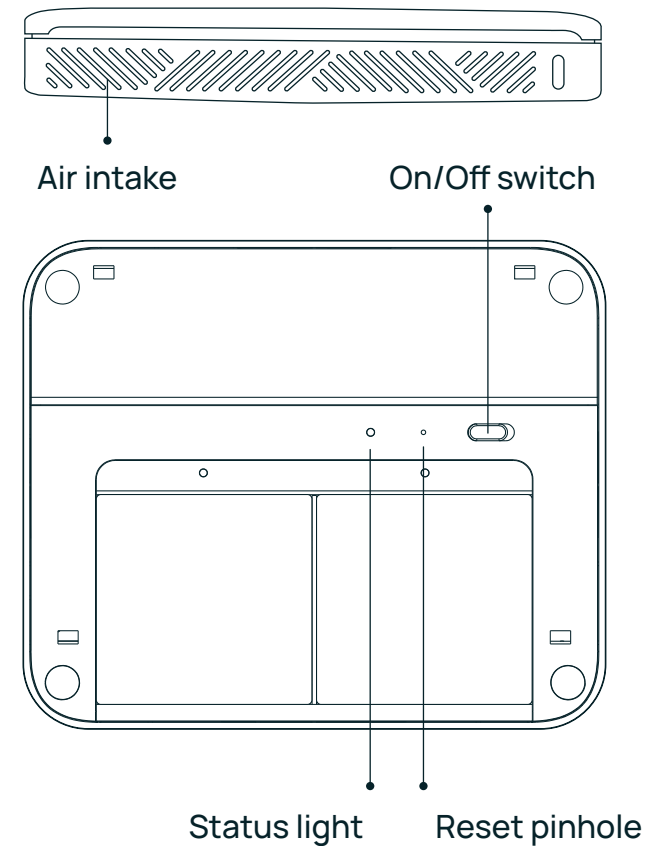
Install your device in occupied space at 1.1-1.7m (3.6-5.6 ft) above the floor (away from doors, windows, air supply and zones where occupants may exhale directly into the sensor). Please make sure that your desired mounting location is close to a power source.



3 Know your device

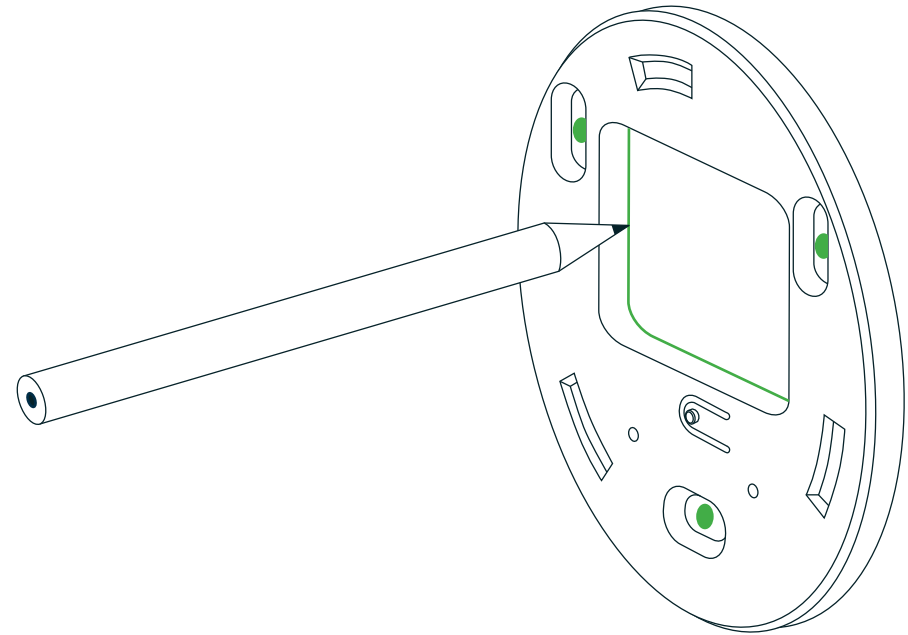
Remove the front cover of the Sensedge Mini, and you will find the ON/OFF switch and RESET pinhole, as well as a device status light.

Air is drawn into the Sensedge Mini from the lower side, as well as the air intake on the upper side. It is vital that neither side of the device is covered. Any changes in airflow may affect the readings and accuracy.



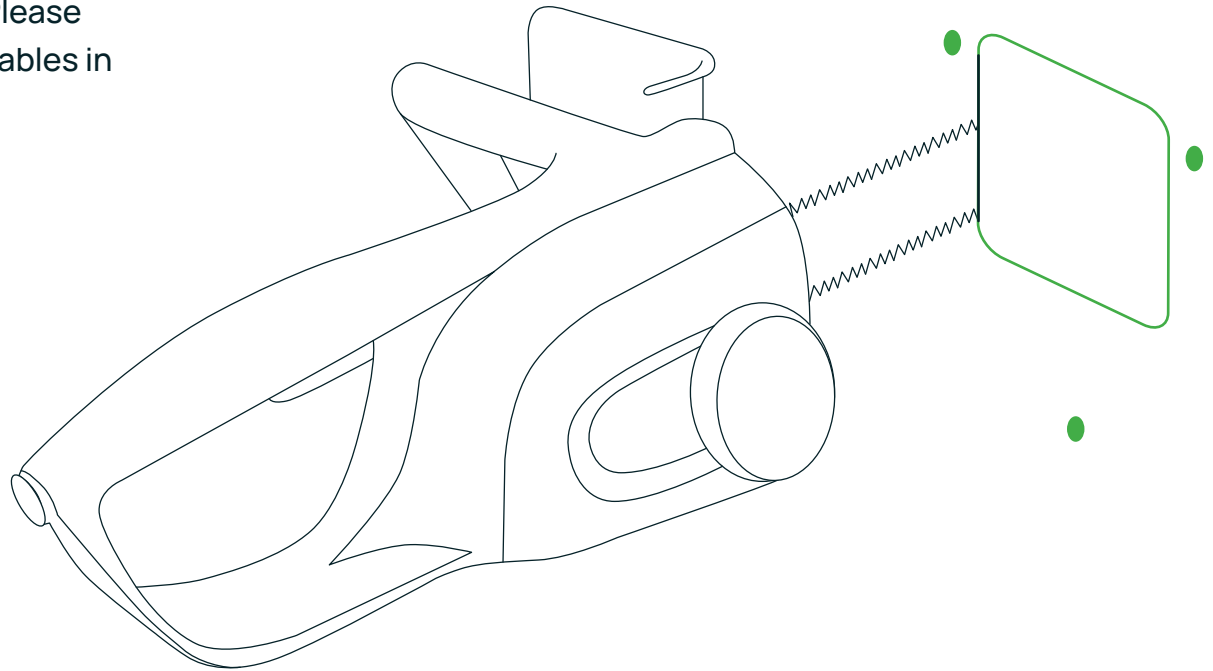
4 Prepare for drywall cut

Find the Surface / Drywall Mount (circular shaped) included in the packaging. Place it at the desired location for installation and use a pencil to mark the location of the three screw holes and trace along the inside edge of the cutout.



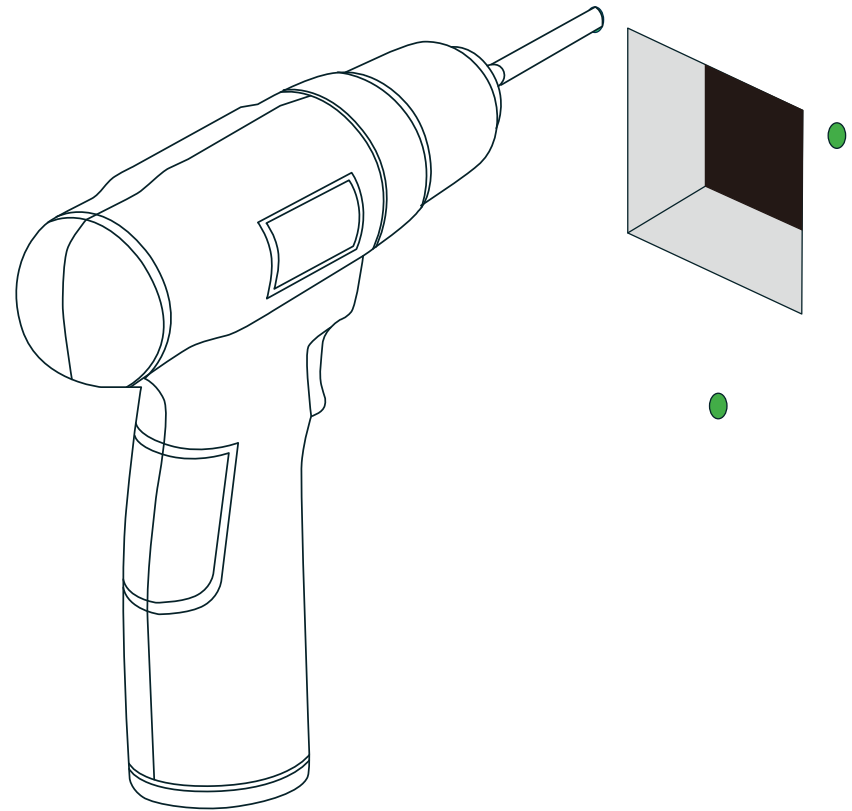
5 Cut along the marked line

Create an incision along the penciled line using your drywall cutting tool. Please check for built-in conduits and cables in the wall before cutting.



6 Drill holes for anchors

Use your power drill and 6mm drill bit to create three holes at the marked screw hole locations.

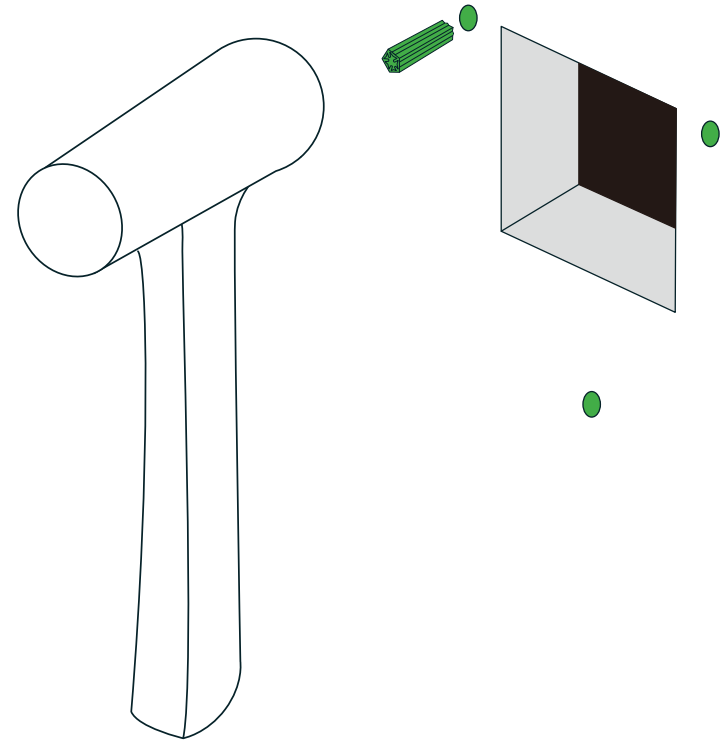


7 Placing anchors in the wall

Gently hammer the drywall anchors into the holes with your mallet.



Drywall screws and anchors (3 pairs)

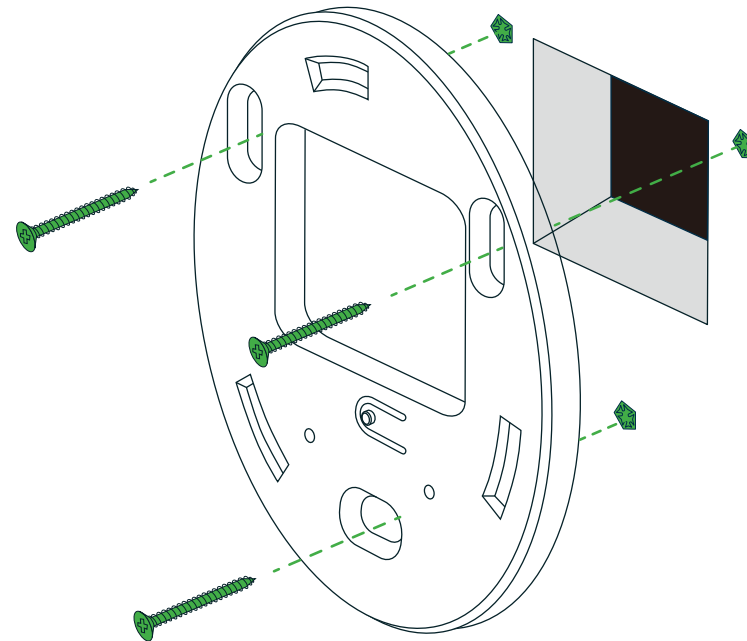


8 Mount plate to the wall

Line up the plate with your Drywall Anchors and mount it to the wall using provided Drywall Screws.



Drywall screws and anchors (3 pairs)

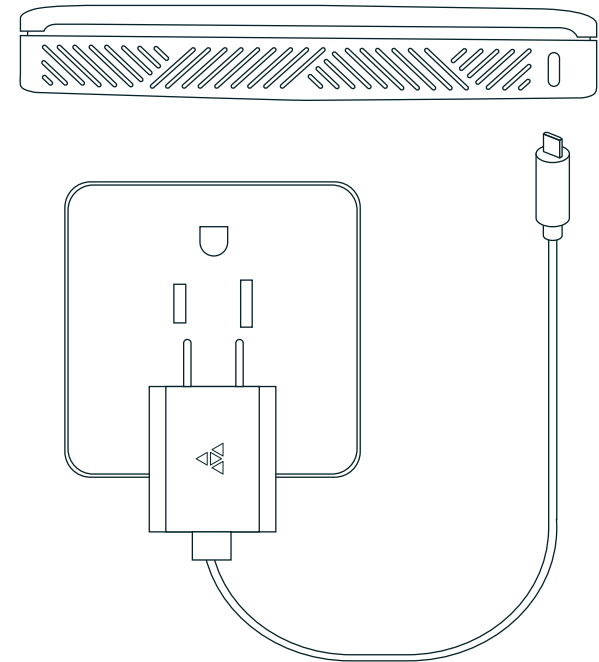


9 Choose your power option

The Sensedge Mini supports both USB-C and direct wiring power options. Choose the power option best suited for your project and follow the instructions accordingly.

A. Power the device with USB-C cable and adapter

Power the Sensedge Mini by connecting the device to a charging port using the USB-C cable and adapter. The charging port is located at the bottom of the device.



B. Power the device via direct wiring

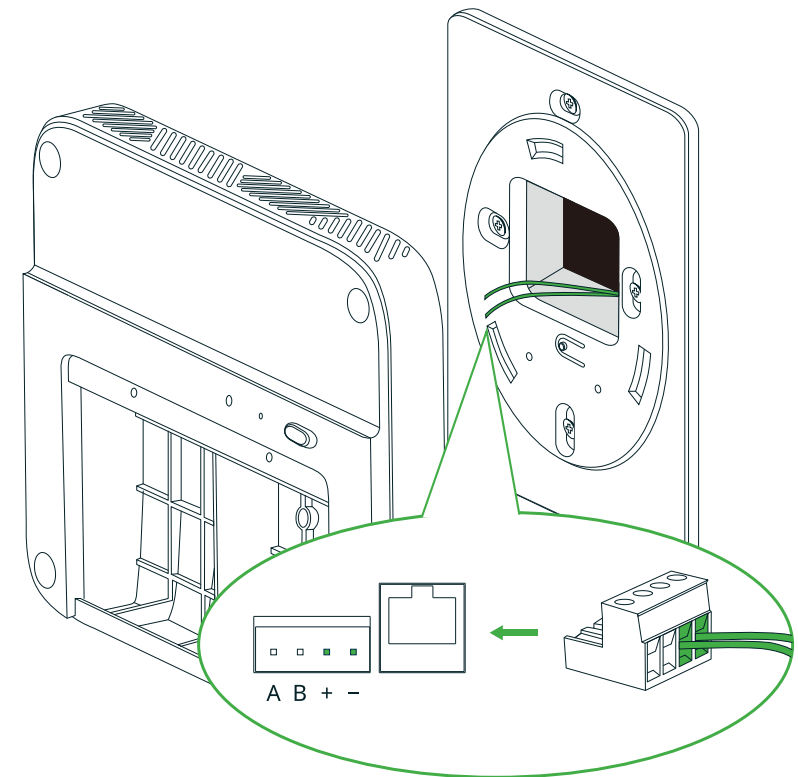
IMPORTANT SAFEGUARDS

- Please use a power source within the range in the product specification. Please contact the facility manager or other responsible personnel if the power source specification is not clear.
- The device must be installed by certified electricians or other authorized personnel ONLY. When installing the device, ALWAYS follow safety precautions to reduce risk of fire, electric shock, injury to persons.
- Make sure the power is cut off before proceeding!

Direct Wiring

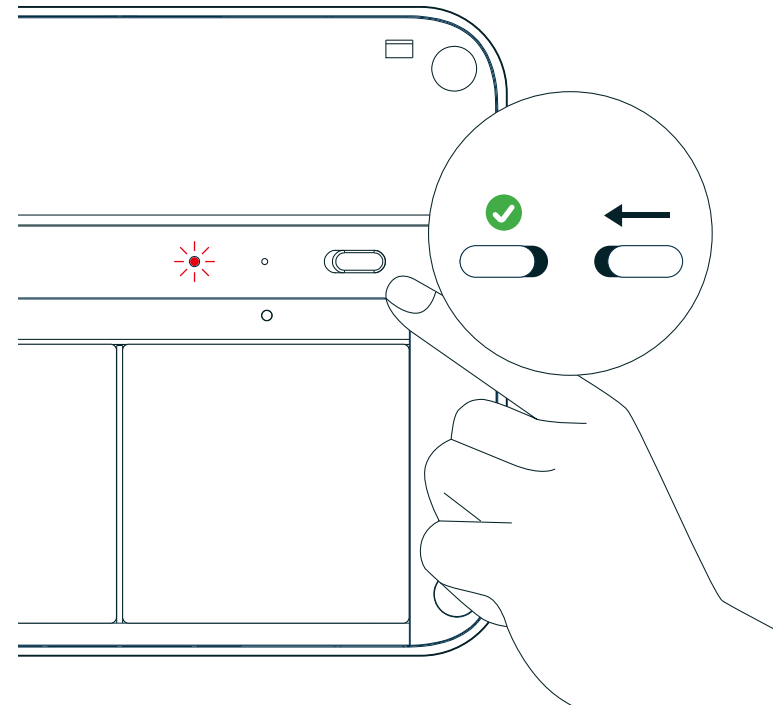
To power your device via direct wiring, connect your electrical wires from your low voltage transformer to a 4-pin Phoenix pin plug. Check the “+” “-” marks on the back of the device to make sure the wires are connected in the right order, and fasten the screws on the Phoenix pin plug to secure the wires.

Run the wires through the opening on the plate, and plug the 4-pin Phoenix pin plug into the corresponding terminals on the back of the device.



10 Turn on the device and check for power connection

Move the ON/OFF switch to turn on the device.
The STATUS light will go on briefly to indicate the device has been powered on.



11 Choose your connectivity option

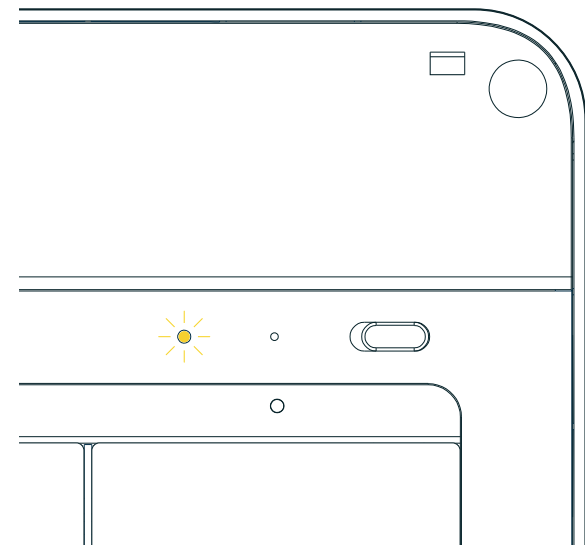
The Sensedge Mini supports Wi-Fi, Ethernet, Modbus via RS-485, and BACnet for connectivity. Choose the connectivity option best suited for your project and follow the instructions accordingly.

A. Set up Wi-Fi

Prepare for Configuration

Download the [Kaiterra Configuration Tool](#) and install it on your computer or smartphone.

After the device has been turned on, it will automatically enter the configuration mode for 15 minutes. The STATUS light will flash in yellow. If your device isn't in configuration mode, please turn off the device and turn it back on again.



Connect to Wi-Fi

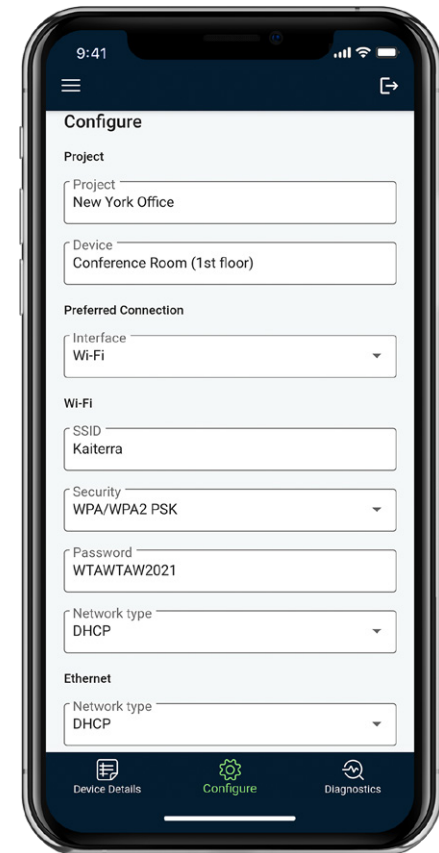
Open network settings on your computer or smartphone and look for the Wi-Fi network that starts with “Kaiterra”. Connect to that network.

On the Configuration Tool, you can enter a name for the device (e.g. the location of the device or the serial number) and a project tag. This will provide easy identification and filtering in the configuration history page later on to help you quickly connect the device to the Kaiterra dashboard.

Enter the Wi-Fi details to the applicable fields on the Configuration Tool, including:

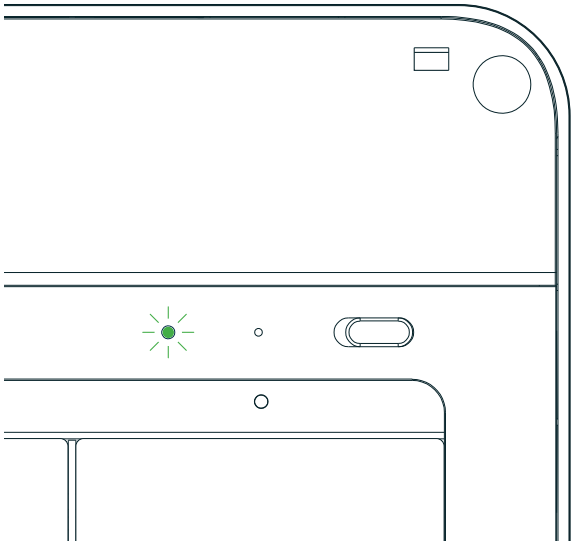
- SSID
- Security type
- Password
- IP (manual mode only)
- Subnet mask (manual mode only)
- Gateway (manual mode only)

Click configure device and disconnect from the “Kaiterra” network.



Check for Connectivity

The STATUS light will flash in green during the pairing process, and eventually go off when the connection is successfully completed.

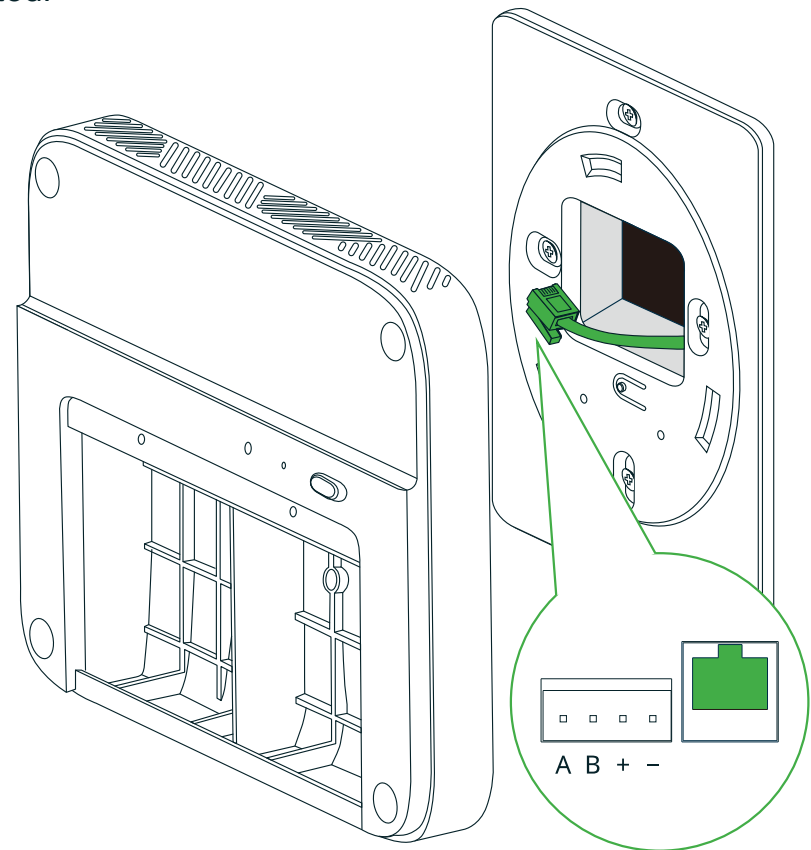


B. Set up ethernet

Run your Ethernet cable through the opening on the plate, and into the Ethernet port on the back side of the device. You should hear a click sound and see a green light on the cable port.

If DHCP mode is used, your connection should be completed.

If Manual Mode is used, please read on.



Manual Mode - Prepare for Configuration

If you choose to set up manual mode, please download the Kaiterra Configuration Tool and install it on your computer or smartphone.

After the device has been turned on, it will automatically enter the configuration mode for 15 minutes. The STATUS light will flash in yellow. If your device isn't in configuration mode, please turn off the device and turn it back on again.

Manual Mode - Connect to network

Open network settings on your computer or smartphone and look for the Wi-Fi network that starts with "Kaiterra". Connect to that network.

On the Configuration Tool, you can enter a name for the device (e.g. the location of the device or the serial number) and a project tag. This will provide easy identification and filtering in the configuration history page later on to help you quickly connect the device to the Kaiterra dashboard.

Enter the network details to the applicable fields on the Configuration Tool, including:

- IP
- Subnet mask
- Gateway

Click configure device and disconnect from the “Kaiterra” network.

Check for Connectivity

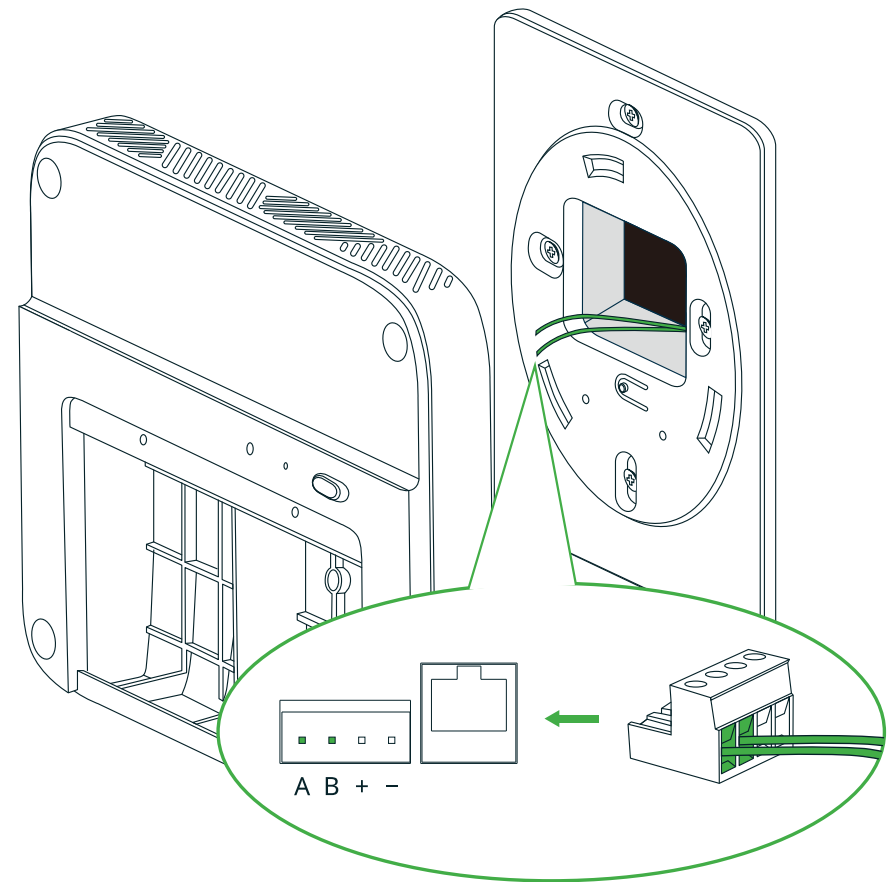
The STATUS light will flash in green during the pairing process, and eventually go off when the connection is successfully completed.

C. Set up Modbus via RS-485

To set up Modbus communication, connect your cable from the RS-485 network to a 4-pin Phoenix pin plug. Check the “A” “B” marks on the back of the device to make sure the cables are connected in the right order, and fasten the screws on the Phoenix pin plug to secure the cables.

Run the cables through the opening on the plate, and plug the 4-pin Phoenix pin plug into the corresponding terminals on the back of the device.

The default Modbus address is set as 1, and can be changed later via the Kaiterra Configuration Tool.



Configure Modbus Settings - Prepare for Configuration

Download the Kaiterra Configuration Tool and install it on your computer or smartphone.

After the device has been turned on, it will automatically enter the configuration mode for 15 minutes. The STATUS light will flash in yellow. If your device isn't in configuration mode, please turn off the device and turn it back on again.

Configure Modbus Settings - Connect to network

Open network settings on your computer or smartphone and look for the Wi-Fi network that starts with "Kaiterra". Connect to that network.

On the Configuration Tool, you can enter a name for the device (e.g. the location of the device or the serial number) and a project tag. This will provide easy identification and filtering in the configuration history page later on to help you quickly connect the device to the Kaiterra dashboard.

Enter the Modbus settings details to the applicable fields on the Configuration Tool, including your Modbus address (enter a number between 1 and 247), AQI standards, and pollutants to include in your AQI calculation.

Please consult the facility manager or other responsible personnel if the Modbus address is not clear.

Click configure device and disconnect from the "Kaiterra" network.

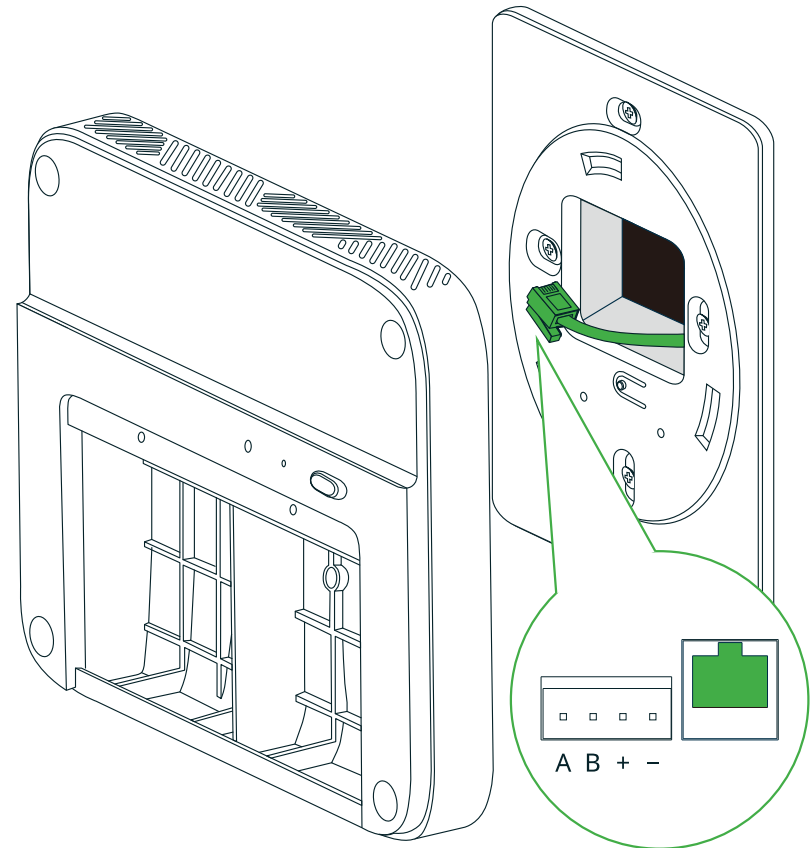
D. Set up BACnet via Wi-Fi or Ethernet

To set up BACnet communication, connect via Wi-Fi or Ethernet cable. Please follow the instructions above for your preferred network connection (Wi-Fi or Ethernet) to proceed.

Configure BACnet Settings - Prepare for Configuration

Download the Kaiterra Enterprise Configuration Tool and install it on your computer or smartphone.

After the device has been turned on, it will automatically enter the configuration mode for 15 minutes. The STATUS light will flash in yellow. If your device isn't in configuration mode, please turn off the device and turn it back on again.



Configure BACnet Settings - Connect to network

Open network settings on your computer or smartphone and look for the Wi-Fi network that starts with “Kaiterra”. Connect to that network.

On the Configuration Tool, you can enter a name for the device (e.g. the location of the device or the serial number) and a project tag. This will provide easy identification and filtering in the configuration history page later on to help you quickly connect the device to the Kaiterra dashboard.

Enter the BACnet settings details to the applicable fields on the Configuration Tool, including your BACnet ID (enter a number between 1 and 4194302). If this field is left empty, BACnet will be disabled.

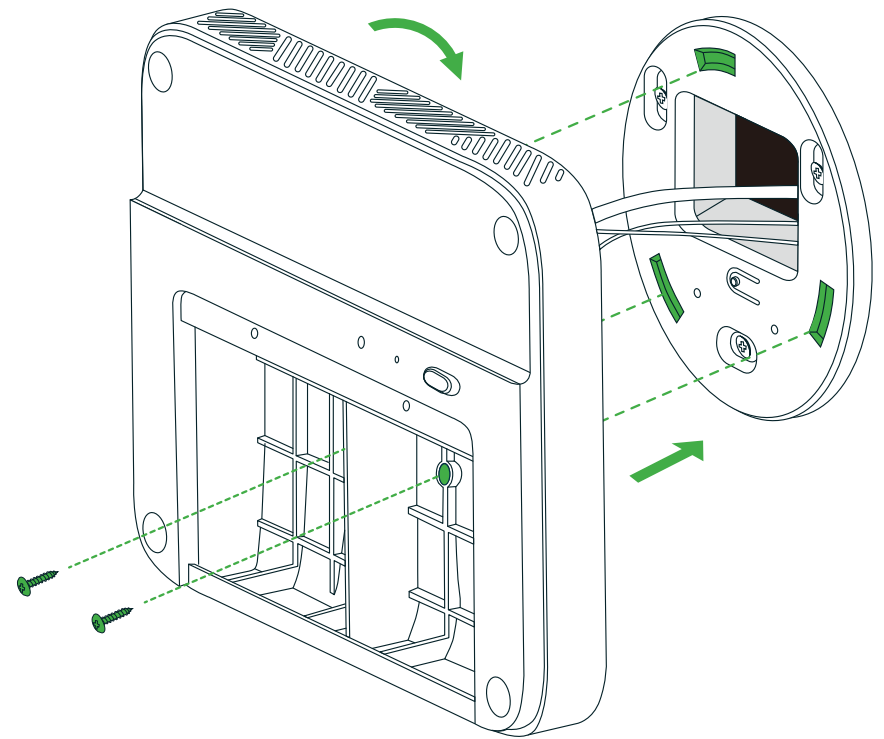
Click configure device and disconnect from the “Kaiterra” network.

12 Secure the device in place

You will find three slots on the plate and three corresponding protrusions on the back of the device. Line the device up with the plate such that the protrusions are inside the corresponding slots. Rotate gently to secure the device and lock it in place, and use the two fastening screws to fasten the device to the plate.



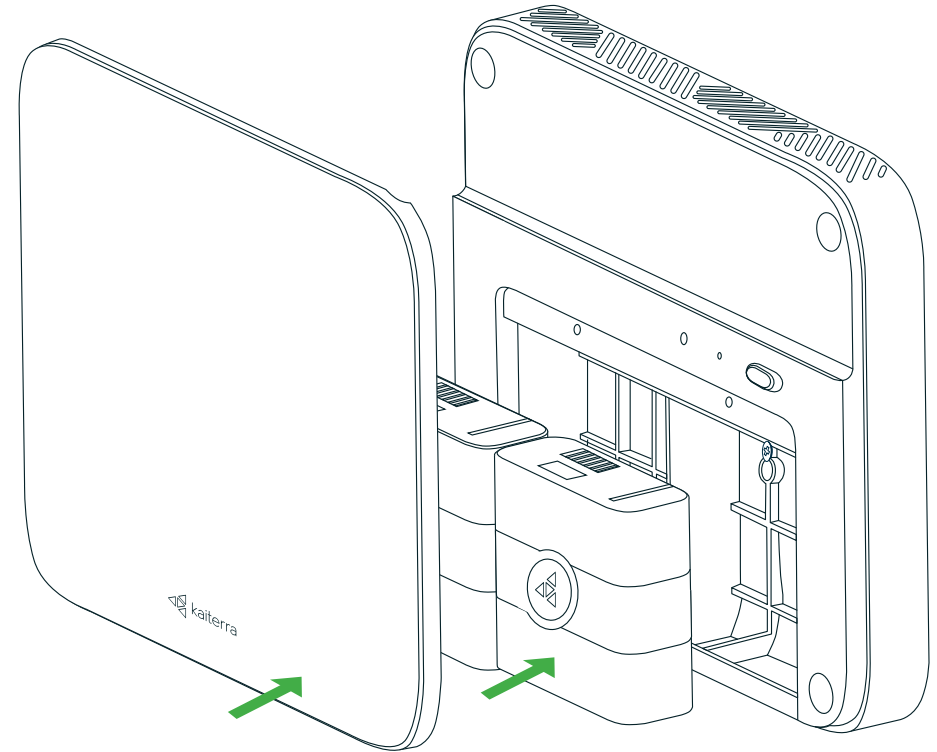
Fastening screws x 2



13 Install the modules

To install the sensor module, simply align it with the bay and press it in, ensuring the Kaiterra logo on the plastic tab is facing outwards. When inserted correctly, the module will click into place, and an LED light above the bay will briefly flash red if the device is powered on.

Sensor modules may be inserted in either sensor bay, and in any order. After successfully installing the modules, put the front cover on.



14 Complete Drywall Installation!

You have completed the installation process. Now follow our [Dashboard Setup Guide](#) to set up your Kaiterra dashboard account and connect your device to the dashboard.



For additional support,
please contact your sales representative or contact us at the following email address:
support@kaiterra.com