



Kaiterra Sensedge Mini BACnet User Manual

February 2024

1.

Introduction

The Kaiterra Sensedge Mini is a smart air quality monitor that supports multiple communication methods, including BACnet.

BACnet, acronym for "Building Automation Control Network", is a communications protocol for Building Automation and Control (BAC) defined by the ANSI/ASHRAE Standard 135-2004. The protocol defines a model for building-automation, describing the interaction between devices and systems.

The Sensedge Mini provides BACnet/IP support, which can be used via Wi-Fi or Ethernet.

Please make sure your Sensedge Mini is running Firmware Version 2.1.1 or later.

If the Firmware Version is older than 2.1.1, connect the device to an Internet network to update the firmware. Once connected, this process is automatic and should take no more than 5 minutes.

Latest Firmware Version: 2.4.5 (May 2023)

2.

Setting up BACnet on the Sensedge Mini

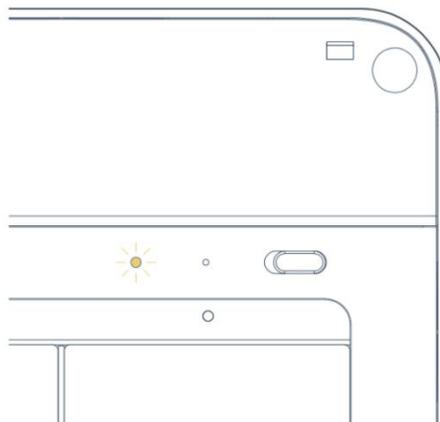
In order to set up BACnet on the Sensedge Mini, you will need to download the Kaiterra Enterprise Configuration Tool and to connect your Sensedge Mini to Wi-Fi or Ethernet.

Setting up BACnet via Wi-Fi

1. Prepare for Configuration

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

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



2. Connect to the device's Wi-Fi Signal

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

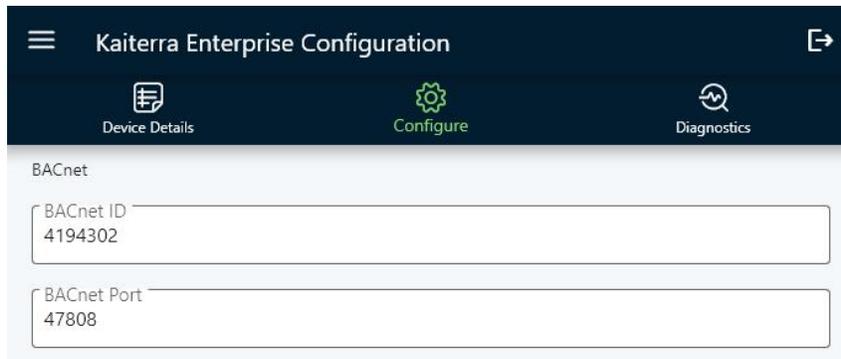
3. Configure the device's settings (including Wi-Fi Network settings)

On the Configuration Tool, you can configure various settings, such as Device Name and Wi-Fi network settings. For the Wi-Fi network settings, enter the Wi-Fi details to the applicable fields on the Configuration Tool:

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

4. Configure Your BACnet Settings

Scroll down to the bottom part of the Kaiterra Enterprise Configuration Tool and enter your BACnet ID (0~4194302) under the BACnet section. If this field is left empty, BACnet will be disabled.



The screenshot shows the 'Kaiterra Enterprise Configuration' interface. At the top, there is a dark blue header with a hamburger menu icon on the left, the title 'Kaiterra Enterprise Configuration' in the center, and a right-pointing arrow icon on the right. Below the header, there are three navigation options: 'Device Details' with a document icon, 'Configure' with a green gear icon, and 'Diagnostics' with a magnifying glass icon. The 'Configure' option is currently selected. The main content area is titled 'BACnet' and contains two input fields. The first field is labeled 'BACnet ID' and contains the value '4194302'. The second field is labeled 'BACnet Port' and contains the value '47808'.

Once the BACnet ID field is filled in, additional fields will appear, such as BACnet Port, BBMD IP Address, etc. Fill these settings out as necessary.

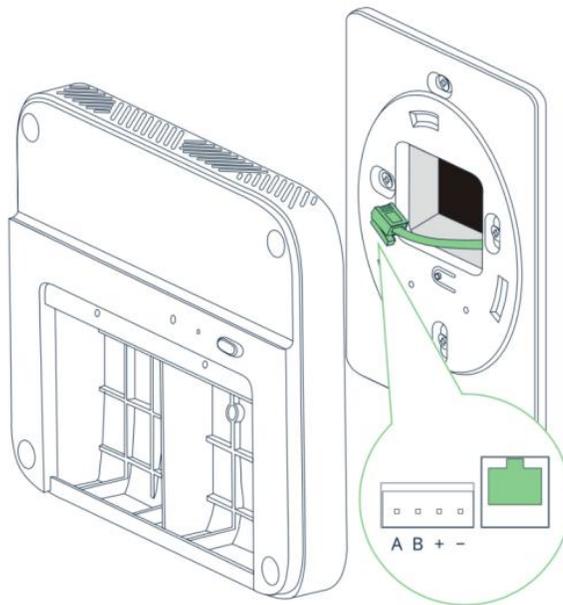
Once configuration is complete, scroll to the bottom and click “Configure Device”.

The STATUS light on the Sensedge Mini will flash green during the pairing process and, if successful, the STATUS light will turn off. If the STATUS light begins to flash red, please repeat these steps to establish a proper connection.

Setting up BACnet via Ethernet

1. Connect your Ethernet cable

Run your Ethernet cable through the opening of the mounting plate and into the Ethernet port on the backside of the device. You should hear a “click” and see a green light on the cable port.



2. Prepare for Configuration

Download the [Kaiterra Enterprise Configuration Tool](#) on your computer or smartphone. After the device has been turned on, it will automatically enter configuration mode for 15 minutes. The STATUS light will flash yellow during this time. If your device is not in configuration mode, please turn the device off and back on again.



3. Connect to the device's Wi-Fi Signal

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

4. Configure the device's settings (including Ethernet Network settings)

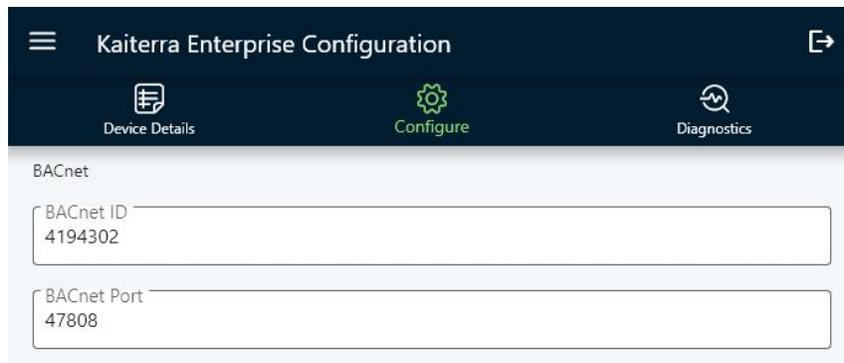
On the Configuration Tool, you can configure various settings, such as Device Name and Ethernet network settings. For the Ethernet network settings, enter the Ethernet details to the applicable fields on the Configuration Tool (DHCP users do not need to fill out this info):

- IP
- Subnet mask
- Gateway

5. Configure Your BACnet Settings

Scroll down to the bottom part of the Kaiterra Enterprise Configuration Tool and enter your BACnet ID (0~4194302) under the BACnet section. If this field is left empty, BACnet will be disabled.

Once the BACnet ID field is filled in, additional fields will appear, such as BACnet Port, BBMD IP Address, etc. Fill these settings out as necessary.



The screenshot shows the 'Kaiterra Enterprise Configuration' interface. At the top, there is a dark blue header with a hamburger menu icon on the left, the title 'Kaiterra Enterprise Configuration' in the center, and a share icon on the right. Below the header is a navigation bar with three icons: 'Device Details' (a document icon), 'Configure' (a gear icon, which is highlighted in green), and 'Diagnostics' (a pulse icon). The main content area is titled 'BACnet' and contains two input fields. The first field is labeled 'BACnet ID' and contains the value '4194302'. The second field is labeled 'BACnet Port' and contains the value '47808'.

Once configuration is complete, scroll to the bottom and click "Configure Device".

3.

Protocol Implementation Conformance Statement (PICS)

PICS is a standard documentation that includes all the parameters and information you may need to set up your BACnet connection.

You can find the PICS document on support.kaiterra.com.

4.

Frequently Asked Questions (FAQ)

Can BACnet be daisy-chained (looped)?

No. While BACnet MS/TP is wired in a daisy chain configuration, we support BACnet/IP and, for that, daisy-chaining does not apply: it would mean daisy-chaining Ethernet, which we do not support as it would require two Ethernet ports and some Ethernet-switching hardware, which our devices do not have.