EnOcean to BACnet Gateway

868 MHz (European Version)

CONTEMPORARY CONTROLS

BASGE-EN868

Installation Guide

The EnOcean to BACnet Gateway provides the systems integrator with a flexible building block when integrating EnOcean wireless devices to BACnet/IP networks or expanding the number of EnOcean points in an existing building automation system. The gateway's virtual routing technology allows building automation supervisors to seamlessly discover EnOcean devices via BACnet. It supports up to 100 EnOcean devices, each appearing as a separate BACnet-compliant device. The gateway creates a set of BACnet objects, specific for each EEP, and decodes the received EnOcean data into standard BACnet objects, such as analog-inputs for temperatures, humidity, light levels, etc. and multistate objects for EnOcean values that represent multiple states. This mapping simplifies integration to a BACnet system because the head-end is not required to decode the transmitted EnOcean data.

- Bidirectional Gateway functionality between EnOcean Wireless and BACnet/IP
- EnOcean device discovery
- Built-in EnOcean Equipment Profiles (EEPs), with the option to upload additional profiles
- Remote commissioning of link tables and configuration settings
- Support for up to 100 EnOcean devices, each appearing as a virtual BACnet device
- Received EnOcean data is decoded into standard BACnet objects
- No external tools required for configuration

Electrical *(Class 2 Circuits Only)*

INPUT	***DC***	***AC***
Voltage (±10%):	24 V	24 V
Power:	3 W	6 VA
Frequency:	N/A	47-63 Hz

Environmental

Operating temperature:	0°C to 60°C
Storage temperature:	–40°C to +85°C
Relative humidity:	10–95%, non-condensing

Functional:	***Ethernet***		***EnOcean***
Compliance	IEEE 802.3		868 MHz
Physical layer	10BASE-T, 100BASE-TX		
Distance	100 m (max)		30 m (indoors typically)
LEDs	**L (Link)**	**Tx/Rx**	**Tx/Rx**
	Green = 100 Mbps Flash = activity	Green = activity	Flash = activity

Antenna (sold separately)

BASGE-ANT868:	EN868 stick antenna: 50 ohm, gain -0.1 dBi, efficiency 40%
BASGE-ANT-2M:	EnOcean antenna w/ 2 m cable: 50 ohm, gain 0.73 dBi (868 MHz) efficiency 60%

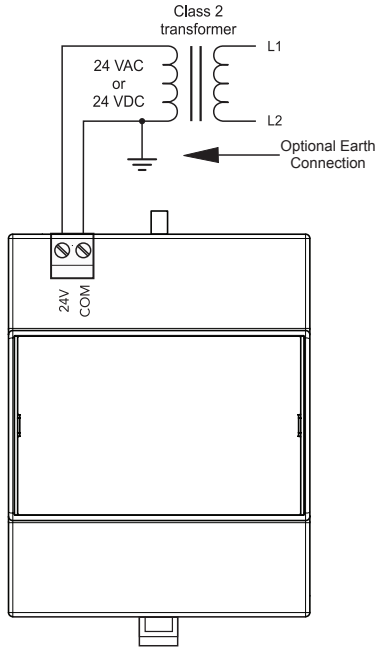
Installation

Power Connection

The EnOcean to BACnet Gateway requires 24 VAC or 24 VDC while drawing no more than 6 VA of power. The recommended conductor size is 16–18 AWG. COM is directly connected to zero volts and the chassis is DC isolated from zero volts. Input connections are reverse-polarity protected. See figure for power options. The SMA connector supports a stick antenna (as shown in the product image) or an antenna with 2 m cable for mounting the antenna outside the control cabinet.

The unit can be DIN-rail or panel mounted. It uses M6 pan head screws in both the body of the gateway and in the DIN-rail clip.

WARNING: Internally, this device utilizes a half-wave rectifier and therefore can only share the same AC power source with other half-wave rectified devices. Sharing a common DC power source is also possible. Sharing AC power with full-wave rectified devices is NOT recommended. Devices powered from a common AC source could be damaged if a mix of half-wave and fullwave rectified devices exists.



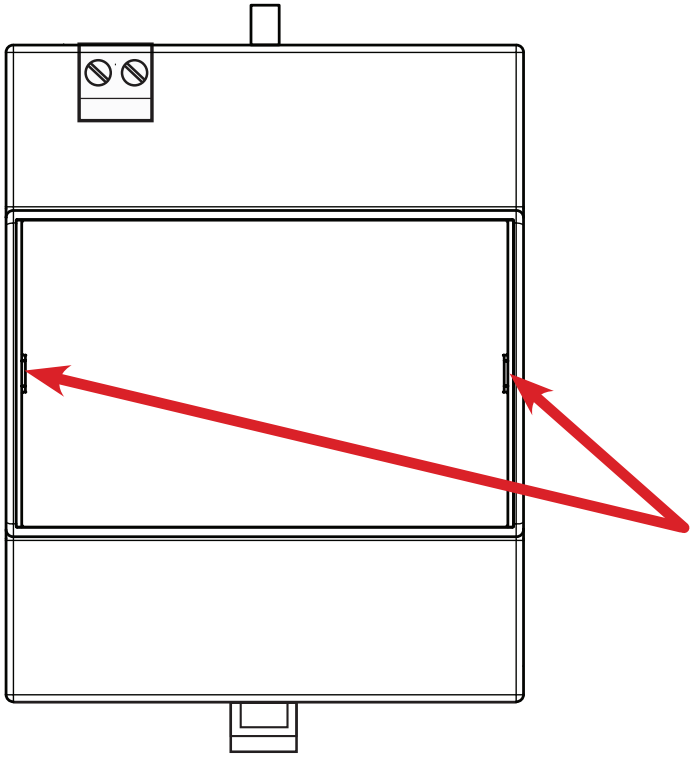
Web Page Configuration

The EnOcean to BACnet Gateway contains an interactive web server accessible from any Internet-compatible PC on the local network with recent versions of most standard web browsers such as Microsoft Edge, Mozilla Firefox, or Google Chrome installed.

To configure the gateway initially, connect it to your Windows PC using an Ethernet cable and set the PC's IP and subnet mask in Local Area Connection –> Properties. In the Internet Protocol Version 4 (TCP/IPv4) settings of your Windows PC, specify an IP address and a Subnet mask in the same subnet as the gateway (e.g. 192.168.92.5 /24).

EnOcean to BACnet Gateway's factory-programmed: Default IP address is ***192.168.92.68*** and a Class C subnet mask of ***255.255.255.0 (/24)*** User Name is: ***admin*** and Password is: ***admin***

Reset IP Remove the top cover, locate the reset IP switch (see picture) and while the unit is powered press for 10 seconds. The unit will reboot, and you can access it via the IP address and user name/password defaults shown above. Please wait 30 seconds for the gateway to complete its booting process



Use a flat head screwdriver at either of these two locations to take off the top cover