



GW2 - Intelligent Gateway

# GW2 - Intelligent Gateway

## Building automation's **missing link**™

### Introduction

GW2 are powerful programmable controllers with embedded gateways and servers that allow building owners, facility managers, and contractors to deploy a 100% wireless building automation system (BAS) or to integrate wireless solutions to wired building automation systems. CAN2GO GW2 are interoperable with any BACnet IP BAS/BMS.

### Applications

The GW2 is ideal for retrofits. It has an aesthetic look, similar to a router, allowing for in-room deployment. It supports control and gateway functionalities for wireless end-devices for the following applications:

- > HVAC room and zone control (actuators, thermostats, sensors, etc.).
- > Lighting room and zone control (switches, relays, sensors, etc.).
- > Access (i.e.: keycard readers, occupancy sensors, etc.).
- > Metering and sub-metering.

### Control features

- > Programmability with real-time response when scripting.
- > Wireless control of EnOcean end-devices (128/128 I/O per GW2).
- > Wireless control of ZigBee end-devices (128/128 I/O per GW2).

### Networking between units

- > Wireless - ZigBee wireless mesh network (self-forming/healing).
- > Wired - Daisy chain.
- > IP/Ethernet - Ethernet port.

### Embedded gateway

- > EnOcean (wireless) to BACnet IP.
- > ZigBee (wireless) to BACnet IP.

### Embedded web server hosting the CAN2GO web BEMS

The GW2 hosts the CAN2GO web building energy management system. The CAN2GO web BEMS is license-free and provides an easy way to discover and configure wireless end-devices. It also supports scripting and offers typical BMS features such as trend logs, events, schedules, maps/floorplan importing, etc.

### Overview

#### Power

- > 400MHz processor
- > 64MB of RAM
- > 2GB Flash

#### Networking

- > Ethernet connector for BACnet Ethernet/IP connectivity
- > 802.15.4 wireless mesh
- > Wired serial bus for daisy-chain

#### Third party interoperability

- > BACnet
- > EnOcean (wireless)
- > Zigbee (wireless)
- > CANbus

#### Wireless integration

- > Embedded web BMS for simple discovery and configuration of wireless end-devices

#### Other

- > Real-time clock



# Specifications GW2 - Intelligent Gateway

## POWER

Voltage - 24VAC; ± 15%; 50/60HZ; Class 2.  
- 24VDC ± 10%

Typical Consumption - 3 VA + Output (VAC)  
- 1.2W + Output (VDC)

## GENERAL

Processor ARM9 32-bit  
Memory 64Mb RAM  
Storage 2Gb Flash  
Real-time clock Battery backed (10,000 hours)  
Communication - Zigbee Pro, EnOcean, BACnet  
- CANbus (125-500 Kbps)  
- Ethernet (10/100 Mbps)

## ENCLOSURE

Material Rigid ABS  
Dimensions 191mm (7.52 in) X 116mm (4.57 in)  
Rating UL940-5VA  
Mounting Wall or ceiling mount

## ENVIRONMENTAL

Operating Temperature 0°C (32°F) to 60°C (140°F)  
Storage Temperature -20°C (-4°F) to 60°C (140°F)  
Relative Humidity 0 to 90% non-condensing

## AGENCY APPROVALS

Energy Management Equipment, UL 916, Fourth Edition, December 23, 1998, rev. December 17, 2007  
CSA Standard for Signal Equipment C22.2 No. 205-M1983 (R2004)  
CFR47 FCC Part15, Subpart B:2009  
ICES-003: Issue 4 (2004)  
CE

## SOFTWARE

Type Embedded web interface  
Local installation None necessary  
PDA/Smartphone compatible Yes  
Browser compatibility Firefox 3.6 and 4.0

## ENOCHEAN TRANSCEIVER (OPTIONAL)

Frequency 315.0 MHz or 868.3 MHz  
Receiver Sensitivity -95dBm  
Conducted Output Power 5dBm  
Range Up to 100m/300ft. open air /  
Up to 30m/100ft. in building  
Antenna - 15 cm wire  
- (Optional) External whip, RP SMA 0dBi

## ZIGBEE TRANSCEIVER (OPTIONAL)

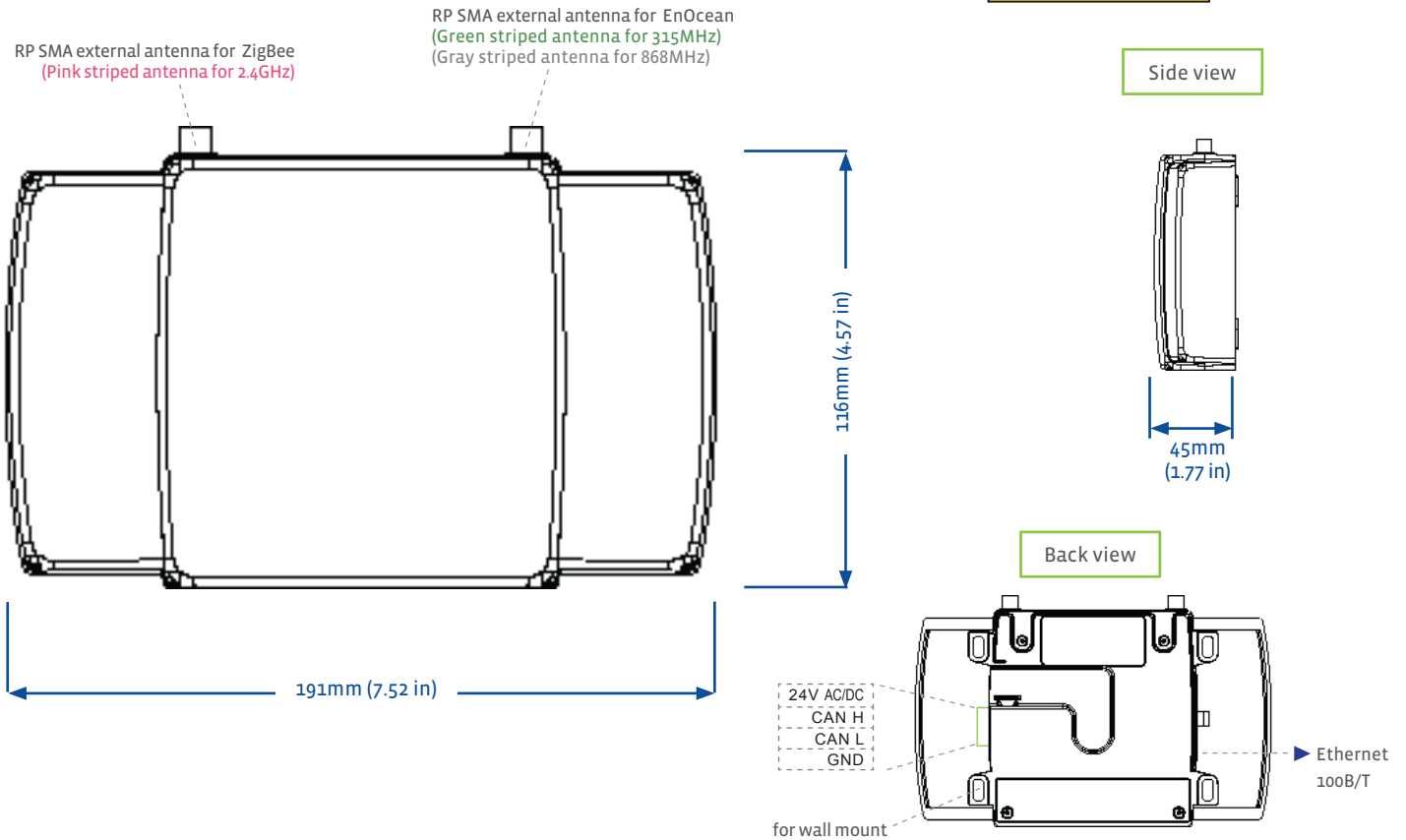
Frequency 2400 – 2483.5 MHz, 16 RF channels  
Data rate / Mod. type 250 Kbps  
Receiver Sensitivity -101dBm / -105dBm (amplified)  
Nominal Output Power 8dBm / 18dBm (amplified)  
Range Up to 1000m/3000ft. open air /  
Up to 300m/1000ft. in building  
Antenna - Internal  
- (Optional) External whip, RP SMA 2.5dbi



## Dimensions & Wiring

### GW2 - Intelligent Gateway

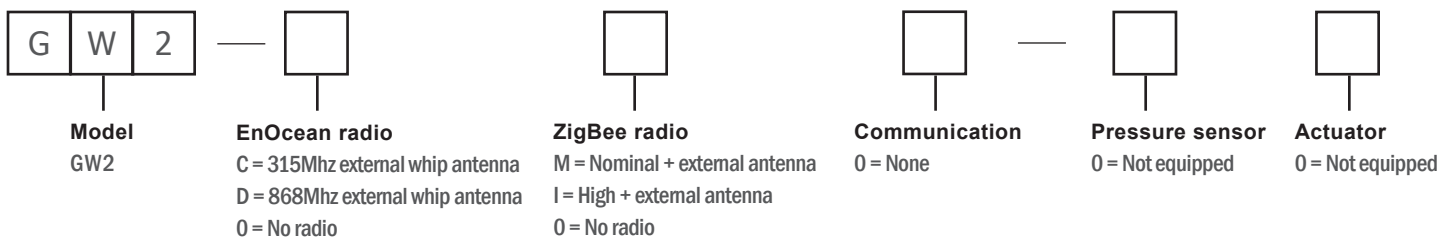
**! IMPORTANT !  
NEW PINOUT**



## Ordering information

### Model: GW2 - Intelligent Gateway

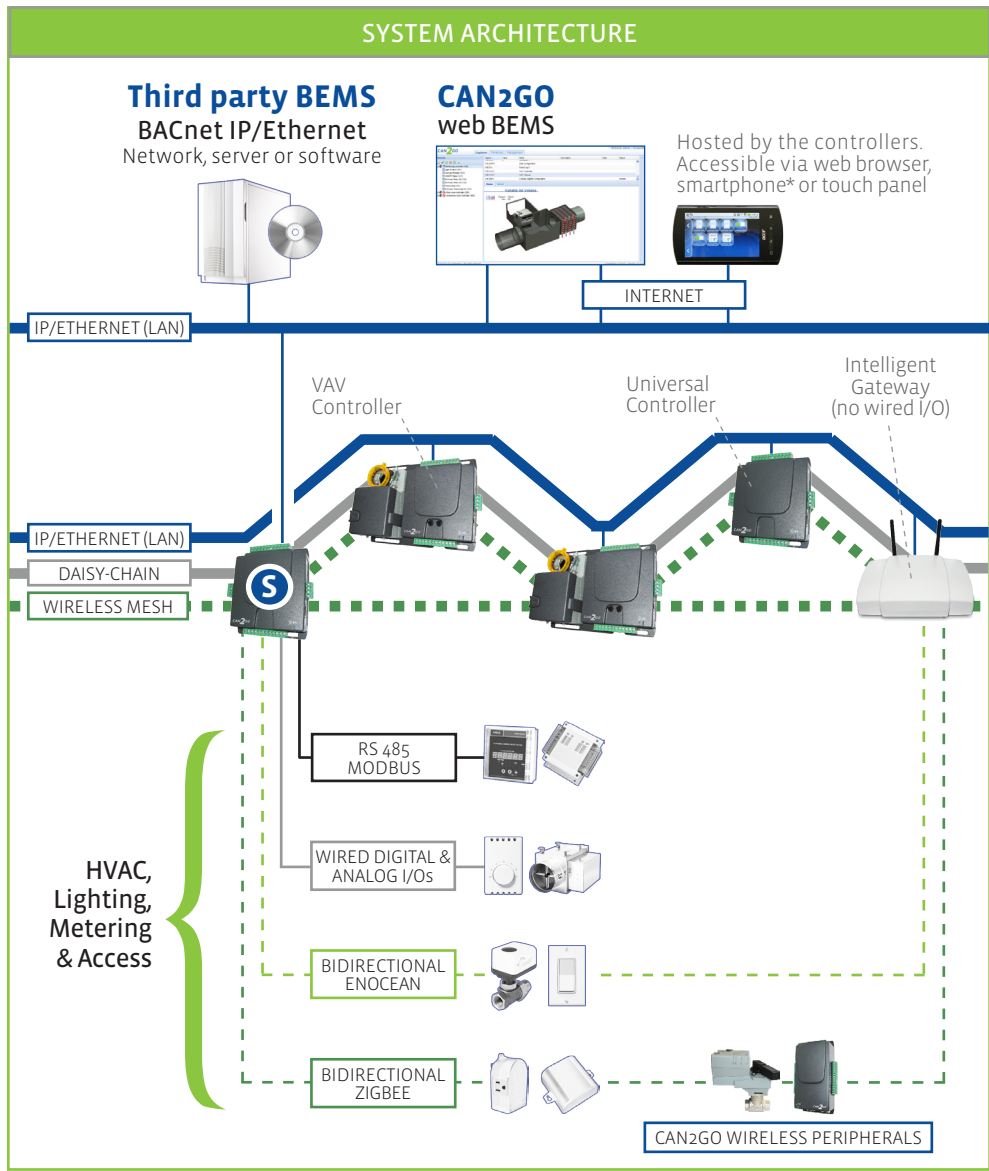
Code all blocks in table.





# CAN2GO System architecture

CAN2GO can be used as stand-alone solution, complete with programmable controllers and an embedded web building energy management system. It can also be integrated with third party BACnet IP/Ethernet building automation systems.



\*Contact us to verify compatibility

**BEMS**

**CAN2GO web BEMS**  
Using a web browser, smartphone\* or touch panel interface, the BEMS is accessible via the local area network (LAN) or online through a secure virtual private network (VPN). It offers centralized control, monitoring and local programming of each controller.

**CONTROLLERS**

**S Server**  
The controller is the server. Connect one CAN2GO unit to the LAN to access the web interface and manage your entire network.

**Gateway**  
The controller is the gateway. Conversion of end-devices into BACnet objects is performed by the controllers. They are equipped with embedded BACnet gateways.

**Models & Applications**  
CAN2GO offers a variety of controller models including the Universal, VAV and Gateway controllers. They are fully programmable with local storage and can manage all types of HVAC, lighting and metering applications.

**End-devices**  
CAN2GO controllers can manage EnOcean, ZigBee, Modbus and wired end-devices, for multiple applications, all at the same time.

Specifications subject to change without notice or liability to provide changes to prior purchasers. Information and specifications published here are current as of the date of publication of this document. SCL Elements reserves the right to change or modify specifications without prior notice. Products or features contained herein may be covered by one or more U.S. or foreign patents. All marks referenced herein with the ® or TM symbol are registered trademarks or trademarks of SCL Elements Inc. or its subsidiaries. All rights reserved. Zigbee is a registered trademark of the Zigbee Alliance. EnOcean is a trademark of EnOcean GmbH. BACnet is a trademark of ASHRAE. All other marks are trademarks of their respective owners.