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# VWG-50-5045 Wireless Gateway



# VWG-50-5045 Wireless Gateway Features



## Introduction

The high installation costs associated with passing new field communication wiring for building retrofit projects has always been one of the principal deciding factors that ultimately determines whether a building upgrade is feasible or not. In many cases, wiring costs associated with building upgrades deems a project as being cost prohibitive and often leaves older buildings with no other option but to keep functioning with inefficient controls with little to no capacity for energy savings.

## Wireless gateway for use with SE7000 wireless room controllers

The VWG-50-5045 wireless gateway and SE7000 wireless temperature controllers have been specifically designed to target building retrofit opportunities where the installation of new communicating field bus wiring within an existing space is cost prohibitive. This new cost-effective wireless solution opens up possibilities that until now were simply dismissed as being non-viable.

The VWG-50-5045 wireless gateway and SE7000 wireless room controllers provide a significant reduction in overall installation costs by eliminating the need for field communication wiring. This allows the existing equipment-to-controller wiring infrastructure already in place to be reused for the SE7000 wireless room controllers.

No special tools or training is required when using the VWG-50-5045 wireless gateway. Network discovery is automatic with only a few simple settings required via the SE7000 room controller's user interface and the VWG-50-5045 web configuration interface. Once the settings are applied, the wireless gateway provides familiar BACnet® MS/ TP or BACnet IP connectivity to your preferred iBMS system.



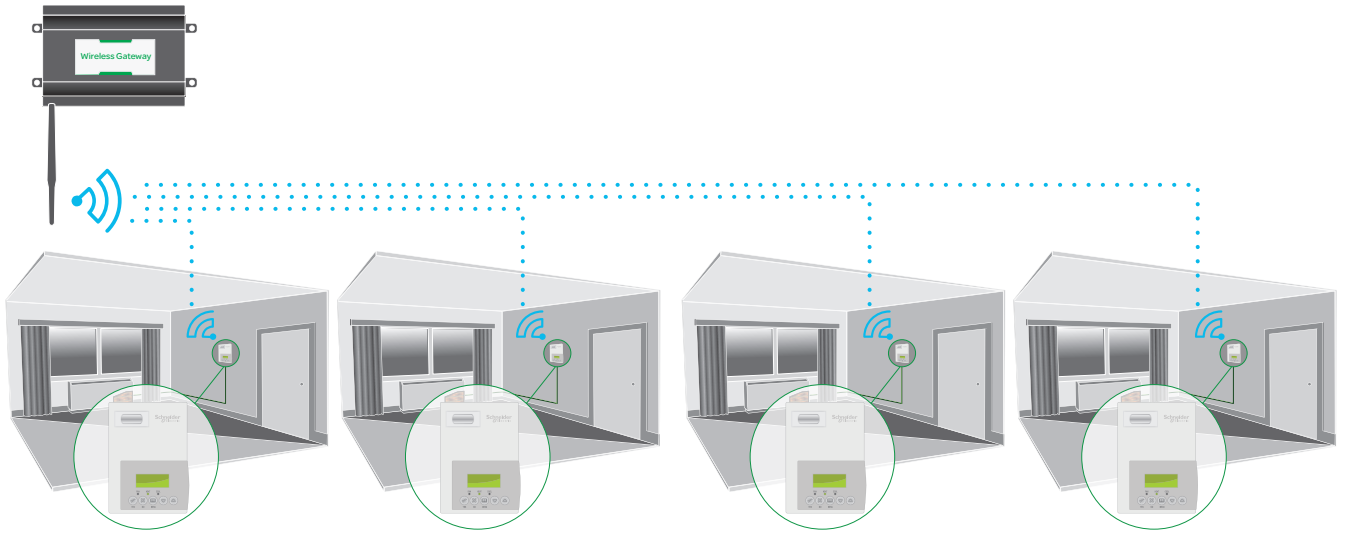
## AT A GLANCE

### Features and benefits

- One VWG-50 wireless gateway supports up to 50 SE7000 wireless temperature controllers
- VWG-50 wireless gateway performs auto discovery of wireless controllers
- Provides BACnet MS/TP or IP connectivity
- SE7000 network controllers function as standalone units if no network is present

# VWG-50-5045 Wireless Gateway Applications

## TYPICAL SINGLE FLOOR VIEW OF WIRELESS MESH NETWORK



## Wireless gateway

- Controllers communicate with each other wirelessly via mesh network.
- Wireless gateway is used as a data access point only, and does not manage network traffic.
- Wireless gateway acts as protocol converter, allowing access to all network information as BACnet objects.
- Web configuration utility provided with each gateway simplifies installation and allows remote configuration of controllers.

# VWG-50-5045 Wireless Gateway Specifications

## Specifications

### Platform

- PowerPC 405EP 250 MHz processor
- 64MB SDRAM & 64 MB Serial Flash
- 128 KB Static RAM
- Battery Backup - 5 minutes typical - shutdown begins within 10 seconds
- Real-time clock - 3 months backup max via battery

### Operating System

- QNX RTOS
- IBM J9 JVM Java Virtual Machine
- NiagaraAX

### Wired Communications

- 2 Ethernet Ports – 10/100 Mbps (RJ-45 Connectors)
- 1 RS 232 Port (9 pin D-shell connector)
- 1 RS 485 non-isolated port (3 Screw Connector on base board)

### Wireless Communications

- Direct spread spectrum 2.4 GHz ISM bands
- Transmission power is under 1 mW at -0.4 dBm for channels 11 to 25 and -4.0 dBm for channel 26

### Chassis

- Construction: Plastic, din rail or screw mount chassis, plastic cover
- Cooling: Internal air convection
- Dimensions: 6.313" (16.04 cm) W x 4.820" (12.24 cm) H (including connectors) x 2.438" (6.19 cm) D

### Environment

- Operating temperature range: 0° to 50°C (32°F to 122°F)
- Storage Temperature range: 0° to 60°C (32°F to 140°F)
- Relative humidity range: 5% to 95%, non-condensing

### Agency Listings

- UL 916, C-UL listed to Canadian Standards Association
- (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- FCC Part 15 Subpart C
- C-tick (Australia)

**NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**



Check with your local government for instruction on disposal of these products.

## CERTIFICATIONS

### Federal Communications Commission (FCC)

This equipment generates, uses, and radiates radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference with radio communications. It has been tested and found to comply with the limits for a computing device pursuant to Part 15 Subpart C of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

### Canadian Department of Communications (ICES-003)

This digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## Ordering information

### Wireless Gateway

VWG-50-5045

### Universal AC Power Supply (100 - 240 VAC to 15 VDC)

VWG-PS-1045

\* The VWG-50-5045 does not come with a power supply. A VWG-PS power supply will be required for each gateway.