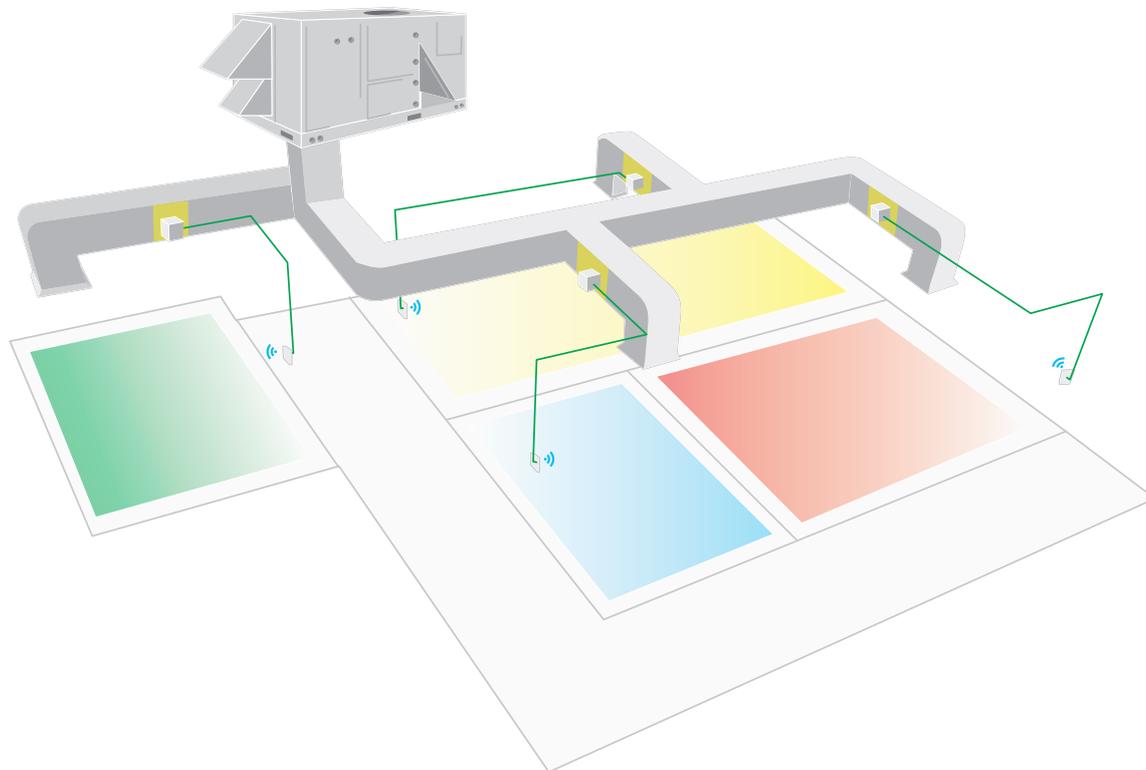


VZ7000 Series

BACnet Commercial Zoning System

A cost-effective, scalable zoning system for the commercial market that delivers unparalleled flexibility via the open BACnet® communication protocol.





AT A GLANCE

Custom design

- Best in class system scalability
- Provides DDC type control functionality and accuracy
- No external software tools required for installation, commissioning or servicing with embedded local HMI utility
- Full line of models offer solutions for a wide range of application
- Control IAQ with any typical third-party wall mounted CO2 sensor
- Controls and measures fresh air with any third-party fresh air measurement station
- Provides embedded free cooling economizer loop
- Built in Network-ready functionality

Options and accessories

- PIR occupancy sensor

Introduction

The VZ7000 BACnet® commercial zoning system is specifically designed to bring a simple scalable BACnet zoning system solution to the commercial mid-market without the cost associated with a typical DDC zoning system.

Our zoning system provides even more flexibility by offering additional functionality and new models covering more applications while still achieving excellent energy savings. The new central models include rooftop and heat pump units controlling analogue heat, CO₂ levels, and indoor air quality in conjunction with zoning controllers that provide floating and analogue damper control. The most unique feature of the zoning system is its scalability; a single central controller unit can support up to 63 individual zone controllers.

Zoning System

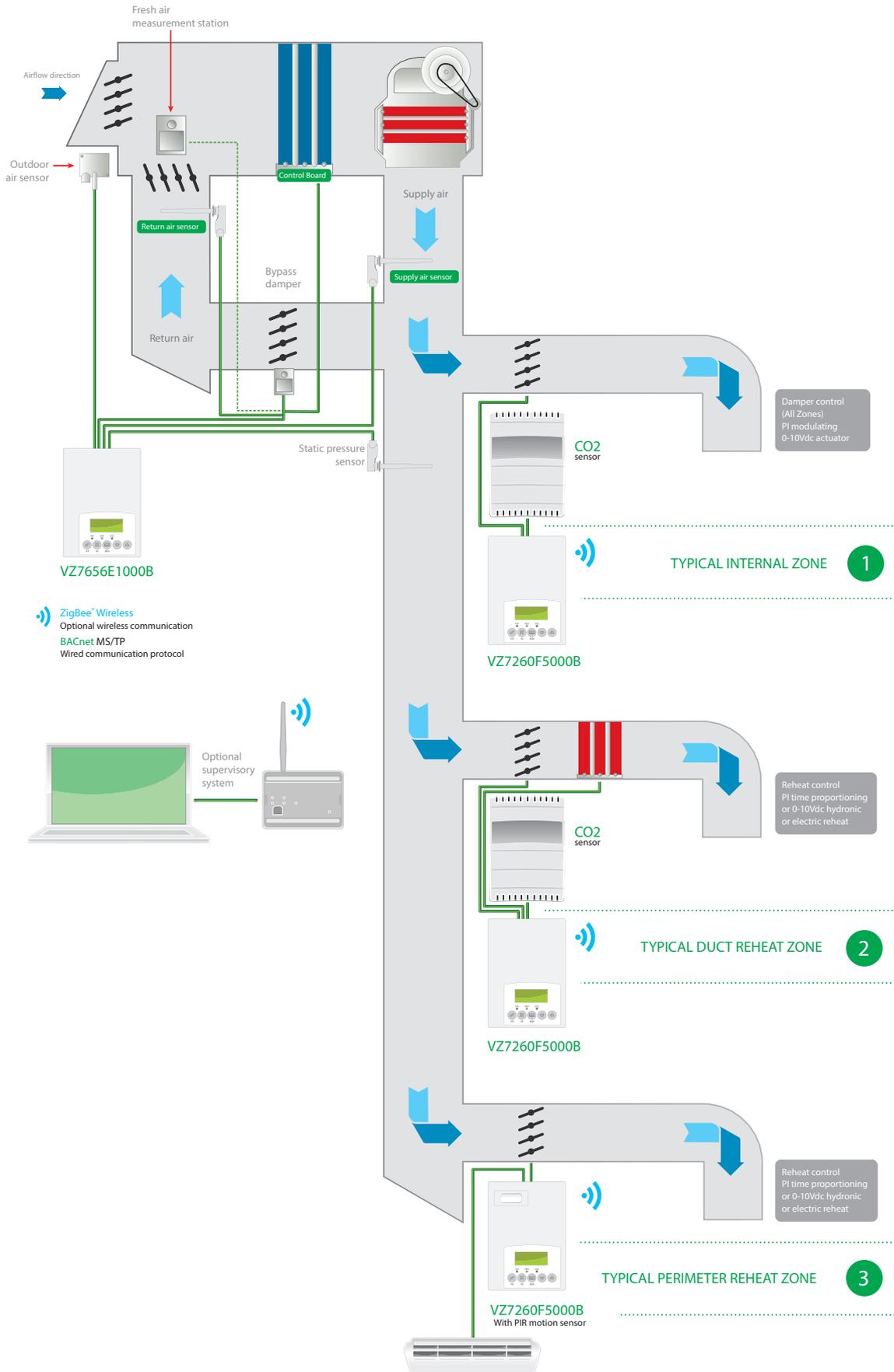
All zone controllers can be ordered with an on-board passive infrared (PIR) occupancy sensor cover that allows for advanced occupancy strategies. This enables the zone controllers to be able to provide even greater energy savings to zones during scheduled occupied events when no occupants are present. This automatic energy-saving feature reduces overall operating costs and accelerates return on investment.

With exceptional system performance rivalling more costly and complex programmable automation systems, the VZ7000 can be installed at a fraction of the total cost of a comparable system. System installation, setup, and commissioning have been simplified by eliminating the need for additional external commissioning equipment or tools. All required testing and configuration including addressing and zone-weighting is accomplished using the easy-to-read LCD interface provided on all controllers.

Moreover, since no other programming tools are required, mechanical service technicians can quickly and easily install and service the system without costly support.

The VZ7000 offers unparalleled flexibility through the use of the open BACnet communication protocol. The system can also be complemented with your choice of BACnet controllers or graphical workstation software. BACnet object mapping can also be accomplished seamlessly without the need for any complex programming tools.

Typical application



VZ7000 BACnet Commercial Zoning System

By installing the zoning system in your building, energy required to render the space comfortable will be used more efficiently when compared to buildings using conventional control systems. Operating costs will be reduced and an overall healthier work and living environment will be achieved.

With LEED certification becoming more prevalent in today's new and existing commercial buildings, the BACnet zoning system now offers the added advantage of bringing your building one step closer to attaining the credits required for LEED certification.

The BACnet zoning system can help in attaining indoor environmental quality credits when used in conjunction with CO₂ sensors and a fresh air measurement device. The IAQ controller can monitor indoor air quality, provide CO₂ demand-based ventilation, and fresh air measurement and control. It also offers embedded free cooling economiser control, ensuring that cooling energy efficiency is optimised.

When used with central scheduling functions, the optional PIR motion sensor with occupancy logic based on actual occupancy detection can also help attain HVAC energy-efficiency LEED credits.

The zoning system allows building owners to maintain a healthy environment for their occupants as well as maximise the overall environmental and economic performance of their buildings.

VZ7000 Specifications

Specifications

Dimensions

12.5cm/4.9in (H) x 8.6cm/3.38in (W) x 2.9cm/1in (D)

Power Requirements

19-30 VAC 50 or 60 Hz; 2 VA Class 2

Operating Conditions

0 °C - 50 °C (32 °F - 122 °F)

0% - 95% R.H. non-condensing

Storage Conditions

-30 °C - 50 °C (-22 °F - 122 °F)

0% - 95% R.H. non-condensing

Temperature Sensor

Local 10 K NTC thermistor

Temperature Sensor Resolution

± 0.1 °C (± 0.2 °F)

Temperature Control Accuracy

±0.5 °C (± 0.9 °F) @ 21 °C (70 °F) typical calibrated

Contact Output Rating

Relay outputs: 30 VAC, 1 Amp. Maximum, 3 Amp.

In-rush.

0 to 10 VDC into 2 KΩ resistance min.

12.0 to 37.5 °C (54 to 100 °F)

Occ, Stand-By and Unocc Cooling

Setpoint Range

12.0 to 37.5 °C (54 to 100 °F)

Occ, Stand-By and Unocc Heating

Setpoint Range

4.5 °C to 32 °C (40 °F to 90 °F)

Room and Outdoor Air Temperature

Display Range

-40 °C to 50 °C (-40 °F to 122 °F)

Proportional Band for Room Temperature control

Cooling & Heating: Default: 1.8°C (3.2°F)

Binary Inputs

Dry contact across terminal BI1, BI2 & UI3 to Scom

AI4 Analog Input

0 to 10 VDC into 10KΩ resistance min.

Wire Gauge

18 gauge maximum, 22 gauge recommended

Approximate Shipping Weight

0.75 lb (0.34 kg)

Agency Approvals All Models

UL: UL 873 (US) and CSA C22.2 No. 24 (Canada), File E27734 with CCN XAPX (US) and XAPX7 (Canada)

Industry Canada: ICES-003 (Canada)

FCC: Compliant to CFR 47, Part 15, Subpart B (US)

CE: EMC Directive 89/336/EEC (Europe Union)

C-Tick: AS/NZS CISPR 22 Compliant (Australia / New Zealand) Supplier Code Number N10696

Agency Approvals Wireless Models

FCC: Compliant to: Part 15, Subpart C

CE: R&RTTE Directive 1999/5/EC (Europe Union)

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.



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



VZ7260 Series ordering matrix

VZ7260 00

PIR options:

- 50 = PIR ready, but PIR cover not included
- 55 = Factory assembled with PIR cover

Control output type:

- C = Floating or actuator damper
- F = Analogue 0 - 10 VDC actuator damper

Communication options:

- B = BACnet MS/TP
- W = ZigBee wireless

Example:

VZ7260F5500B

- Zoning system controller
- Analogue outputs
- Factory assembled PIR cover
- BACnet MS/TP communication

* Some part number configurations may not be available. Please refer to the tables for available versions.

VZ7656 Series ordering matrix

VZ7656 1000

Communication options:

- E = 2H/2C IAQ applications
- F = 1H/2C modulating heat applications
- H = 3H/2C heat pump applications
- R = 2H/2C roof top applications

Communication options:

- B = BACnet MS/TP
- W = ZigBee wireless

Example:

VZ7656E1000W

- Zoning system controller
- 2H/2C IAQ application
- PIR ready
- ZigBee wireless communication

* Some part number configurations may not be available. Please refer to the tables for available versions.

Refer to the VT7000 Series - Product Comparison Guide for all available part numbers. The latest VT7000 Series - Product Comparison Guide is available as a pdf document on the web at: <http://viconics.com>