## VT8000 and VT7000 Room Controllers

## **Product Catalog**







Viconics Room Controllers bridge the gap between the cost of stand-alone thermostats, and the performance of DDC systems, by simplifying installation and commissioning, to control Rooftop units, fan coil units, terminal units and heat pump applications, for a wide variety of facilities.



## VT8000 or VT7000

## Common features

## Easy to install

No need to interrupt operations when installing room controllers. You can re-use existing wiring or communicate wirelessly to sensors and gateways, thereby lowering installation costs and keeping downtime in check.

## **Precise comfort**

Room controllers look like thermostats, but work like controllers. They deliver the optimal level of comfort while maximizing savings on energy and operational costs

## Easy to commission

No need for software or other tools. Commissioning is done by configuration through the user interface of the room controller, thereby saving on engineering time and cost.

## **Powerful control**

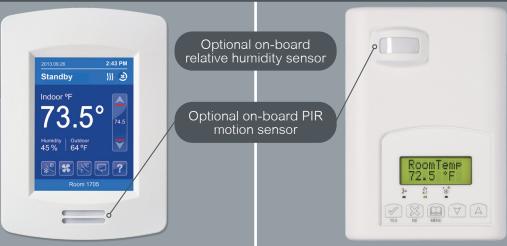
Get the most out of your HVAC systems with the application-specific control and PID algorithms native to room controllers. You can also optimize your space by using the optional occupancy detection and scheduling features.

## Easy to scale

The native connectivity of room controllers enables upstream connection to a wide variety of Building Management Systems (BMS), and downstream connection to wired and wireless sensors.

## Significant savings

Room controllers provide an accelerated return on investment with savings at all levels: installation, commissioning, energy optimization, and maintenance.



## The power to choose for customers who need more.

- > Wi-Fi IP ready
- Several display color schemes to match any décor
- Customizable user interface, selectable languages, and advanced BACnet messaging for an unparalleled guest experience.
- Highlight your brand by uploading a custom standby image or logo on the user interface
- Programmable with Lua4RC to modify control sequences, or override inputs and outputs

Simply the most cost-effective option on the market.

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Not all products in the catalogue may be available in every country, please check availability with the local Viconics office.



# Reduce energy waste & improve comfort.

Accelerate your return on investment with easy to install and commission room controllers



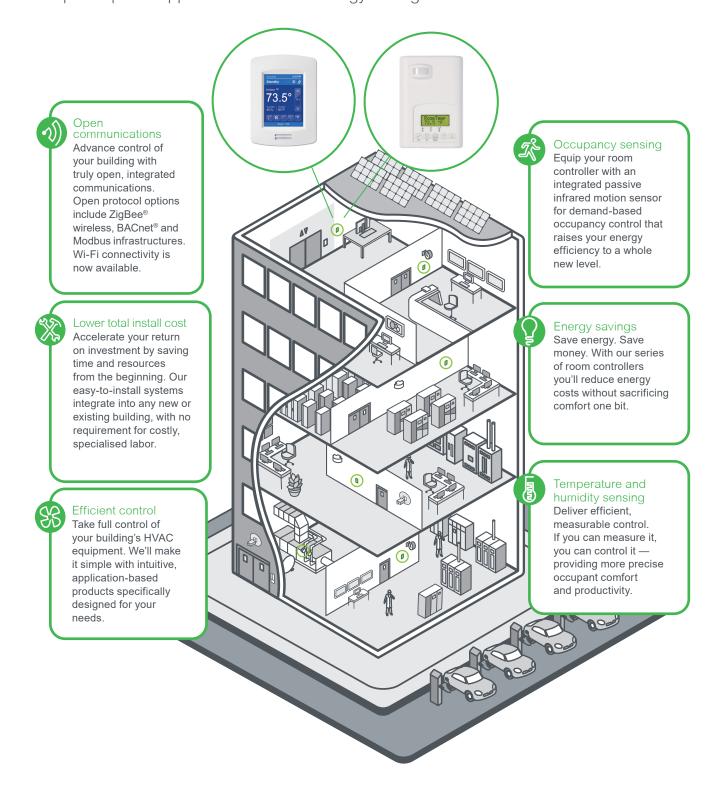


Viconics Room Controllers provide comfort and energy savings using their native application-specific control sequences, PID algorithms, occupancy detection and schedule management.



## Cost-saving, energy-saving applications

From hotels and hospitals to schools, retail, and commercial buildings, Viconics offers wide-ranging room control solutions for your building management needs. Whether retrofitting current systems with a more technologically advanced room controller or going green with a more environmentally friendly option, Viconics has the ideal, cost-competitive solution. Our Room Controllers can be equipped with an integrated passive infrared motion sensor for demand-based occupancy control that opens up new opportunities in smart energy management.



VT8000 Room Controllers

## The perfect balance between simplicity and sophistication

The VT8000 Series is a sophisticated addition to the Viconics portfolio of room controllers. With rich, customizable features, the VT8000 Series enables significant energy savings with accurate temperature control in any space. The VT8000 Room Controllers can be easily integrated into most Building Management Systems (BMS).

## Configurable languages





## Configurable color schemes



## Configurable user interface





















## Common features

- Configurable sequence of operations
- BACnet Change of Value (COV), MS/TP or Modbus RTU
- Scheduler
- Programmable with Lua4RC to modify control sequences or override inputs and outputs
- On-board relative humidity sensor with dehumidification control
- Optional on-board PIR motion sensor with occupancy-based control sequences
- On-board or plug-in ZigBee Pro module
- Wi-Fi connectivity via plug-in module
- Firmware updates via USB

VZ8250	VTR8350 (with VC3000)	VT8350	VT8650
> Variable Air Volume (VAV) units	> Line voltage fan coil units	<ul> <li>Low voltage fan coil units</li> <li>Mixed voltage fan coil units</li> <li>Zone control</li> </ul>	<ul><li>Rooftop units</li><li>Heat pumps</li><li>Indoor air quality</li></ul>
Variable Air Volume (VAV) units  • Pressure dependent and independent VAV system  • Fan speed and sequence of operations  • ECM or On/Off fan control  • Duct and/or baseboard heaters	Line voltage fan coil units  Requires VC3000 Relay Pack  Fan speed and sequence of operation  Two pipe  Four pipe  ECM fan control	Low voltage fan coil units  Fan speed and sequence of operation  Two pipe  Four pipe  ECM fan control  Mixed voltage fan coil units  Requires VC1300/VC2300  Relay Pack	Rooftop units, heat pumps and indoor air quality • Economizer • CO2 sensor input • Fresh Air Station input  Configurable stages • 1 heat/1 cool • 2 heat/2 cool • Modulation heat/2 cool • 3 heat/2 cool

### | Variable Air Volume (VAV) controller VZ8250

This VZ8250 terminal equipment controller provides contractors with an easy to implement solution for Variable Air Volume (VAV) applications. Designed for new construction and retrofit projects, this room controller dramatically decreases project delivery costs by reducing installation, configuration and commissioning time. It is designed for zone temperature control in Variable Air Volume systems. An Air Handling unit and a VAV rooftop unit serve many zones within a building by supplying a varying amount of supply air at a constant supply air temperature. Additional flexibility and energy savings can be achieved with optional wireless door, window, motion and water leak sensors. An elegantly simple casing combines with configurable screen colors to match decor. Display your own logo and custom messages on screen to reinforce your brand and provide a more enjoyable occupant experience.



Description			
	Height: 12cm/4.72in		
Dimension	Width: 8.6cm/3.38in		
	Depth: 2.5cm/1in		
Power			
	24 Vac 50/60Hz or 24 Vdc		
Voltage	up to 6 VA power consumption		
	94 VA Max. output load		
Communication			
	BACnet MS/TP, or Modbus RTU		
Protocol	ZigBee Pro (with VCM8000V5045P or on-board ZigBee)		
	BACnet/IP and email notification via Wi-Fi (with VCM8002V5031)		

## **Product highlights**

- · Elegant style combinations, designed to complement any decor
- · Customizable color digital touch screen interface with multi-language support
- ECM or On/Off fan control
- Variable Air Volume (VAV) applications:
   Pressure-independent VAV with a 0-10V differential pressure sensor
  - Pressure-dependent VAV
- · On board configuration interface with balancing
- Alarm monitoring
- Suitable for both commercial and hospitality markets and systems
- Fully programmable control sequences using scripting
- · Configurable scheduler
- · Change of value (COV) function for BMS integration
- · Humidity sensor
- · Configurable I/O
- Optional PIR motion sensor
- · Advanced occupancy functions for commercial and lodging applications
- · Optional wireless door, window, motion and water leak sensors available
- Fresh air control (requires a CO2 sensor)

### **Communication**

- BACnet MS/TP or Modbus RTU (user selectable)
- ZigBee Pro (P) option for direct MPM integration (On-board or plug-in ZigBee Pro wireless module)
- BACnet/IP and email notification via Wi-Fi (with VCM8002V5031)

## **Accessories**

- CO<sub>2</sub> sensor module
- CO2/temperature/humidity sensor
- ZigBee wireless window, door, motion and water leak sensors

Part Number	Description	BACnet MS/TP	PIR motion sensor	ZigBee Pro on-board
VZ8250U5000B	VAV Pressure Dependant/Independant Controller	Х		No*
VZ8250U5500B	VAV Pressure Dependant/Independant Controller	Х	Х	No*
VZ8250U5500BP	VAV Pressure Dependant/Independant Controller	Х	X	X

<sup>\*</sup>Note: ZigBee Pro plug-in module is available

## VTR8350 | Line-voltage fan coil controller with VC3000 relay pack

This two component retrofit option consists of the VTR8350 terminal equipment controller and the VC3000 Relay Pack (refer to "Relay Packs" on page 37 for more information). Together, they provide an easy solution for retrofitting fan coil unit thermostats without requiring other components such as relays, transformers, controllers, sensors, and network wiring to be upgraded. Existing line voltage wiring between the fan coil unit and temperature Controller can be reused further minimizing overall labor and installation costs for both retrofit and new construction control projects. Additional flexibility and energy savings can be achieved with optional wireless door, window, motion and water leak sensors. An elegantly simple casing combines with configurable screen colors to match decor. Display your own logo and custom messages on screen to reinforce your brand and provide a more enjoyable occupant experience.



Description		
	Height: 12cm/4.72in	
Dimension	Width: 8.6cm/3.38in	
	Depth: 2.5cm/1in	
Power		
	Typical: 7 Vdc from VC3000	
Voltage (VTR8000)	Alternate: 24 Vac 50/60Hz or 24 Vdc	
	up to 4 VA power consumption	
Voltage (VC3000)	90 - 277 Vac universal, 50/60Hz	
Communication		
	Stand-alone, BACnet MS/TP, or Modbus RTU	
Protocol	ZigBee Pro (with VCM8000V5045P or on-board ZigBee)	
	BACnet/IP and email notification via Wi-Fi (with VCM8002V5031)	

## **Product highlights**

- Elegant style combinations, designed to complement any decor
- Customizable color digital touch screen interface with multi- language support
- 2 Pipe or 4 Pipe configuration
- ECM fan control
- Line voltage applications
- On board configuration interface utility
- Alarm monitoring
- · Suitable for both commercial and hospitality markets and systems
- Fully programmable control sequences using scripting
- Configurable fan sequence of operation
- Configurable scheduler
- Change of value (COV) function for BMS integration
- · Humidity sensor with on-board dehumidification strategy
- Configurable I/O
- Optional PIR motion sensor
- Advanced occupancy functions for commercial and lodging applications
- Optional wireless door, window, motion and water leak sensors available

### Communication

- BACnet MS/TP or Modbus RTU (user selectable)
- ZigBee Pro (P) option for direct MPM integration (On-board or plug-in ZigBee Pro wireless module)
- BACnet/IP and email notification via Wi-Fi (with VCM8002V5031)

### **Accessories**

- The VC3000 Relay Pack is a necessary accessory for retrofit solution to use with the VTR8350 room controller. Refer to the "VC3000 Relay Pack" on page 37 for more information (later in this document).
- CO, sensor module
- CO<sub>2</sub>/temperature/humidity sensor
- ZigBee wireless window, door, motion and water leak sensors

Part Number	Description	BACnet MS/TP	RH sensor & control	PIR motion sensor	ZigBee Pro on-board
VTR8350A5000B	Line voltage fan coil Controller	Х	Х		No*
VTR8350A5500B	Line voltage fan coil Controller	Х	Х	Х	No*
VTR8350A5500BP	Line voltage fan coil Controller	Х	Х	Х	X

<sup>\*</sup>Note: ZigBee Pro plug-in module is available

## VT8350 | Low voltage fan coil unit and zone controller

Smart energy management has never been easier than with the VT8350 series Fan coil unit room controllers. Designed for new construction and retrofit projects, the room controllers dramatically decrease project delivery costs by reducing installation, configuration and commissioning time. No complex software or tools are required to customize functionality to meet your applications requirements. The room controllers provide all the advanced features and monitoring functions required by modern building automation systems in a simple compact enclosure. An elegantly simple casing combines with configurable screen colors to match decor. Display your own logo and custom messages on screen to reinforce your brand and provide a more enjoyable occupant experience.



## **Product Highlights**

- · Elegant style combinations, designed to complement any decor
- Touch screen interface with multi-language support
- 2 Pipe or 4 Pipe configuration
- ECM fan control
- Suitable for both commercial and hospitality markets and systems
- Fully programmable control sequences using scripting
- · On board configuration interface utility
- · Configurable fan sequence of operation
- · Configurable Scheduler.
- Change of value (COV) function for BMS integration.
- Humidity sensor with on-board dehumidification strategy
- · Optional PIR motion sensor
- Advanced occupancy and scheduling functions for commercial and lodging applications
- Optional wireless door, window, motion and water leak sensors available

## **Communication**

- BACnet MS/TP or Modbus RTU (user selectable)
- ZigBee Pro (P) option for direct MPM integration (On-board or plug-in ZigBee Pro wireless module)
- BACnet/IP and email notification via Wi-Fi (with VCM8002V5031)

### **Accessories**

- CO<sub>2</sub> sensor module
  CO<sub>2</sub>/temperature/humidity sensor
- ZigBee wireless window, door, motion and water leak sensors

Description	
	Height: 12cm/4.72in
Dimension	Width: 8.6cm/3.38in
	Depth: 2.5cm/1in
Power	
	24 Vac 50/60Hz or 24 Vdc
Voltage	up to 6 VA power consumption

94 VA Max, output load Communication BACnet MS/TP, or Modbus RTU ZigBee Pro (with VCM8000V5045P or

BACnet/IP and email notification via

on-board ZigBee)

Wi-Fi (with VCM8002V5031)

Part Number	Description	BACnet MS/TP	RH sensor & control	PIR motion sensor	ZigBee Pro on-board
VT8350U5000B	Low voltage fan coil Controller	Х	Х		No*
VT8350U5500B	Low voltage fan coil Controller	Х	Х	Х	No*
VT8350U5500BP	Low voltage fan coil Controller	Х	X	X	X

\*Note: ZigBee Pro plug-in module is available

Protocol

## VT8650 | Rooftop unit, heat pump and indoor air quality room controller

Smart energy management has never been easier than with the VT8650 room controllers for Rooftop units, heat pumps and indoor air quality applications. Designed for new construction and retrofit projects, the room controllers dramatically decrease project delivery costs by reducing installation, configuration and commissioning time. No complex software or tools are required to customize functionality in order to meet your applications requirements. The room controllers provide all the advanced features and monitoring functions required by modern building automation systems in a simple compact enclosure. An elegantly simple casing combines with configurable screen colors to match decor. Display your own logo and custom messages on screen to reinforce your brand and provide a more enjoyable occupant experience.



Standby     3
Standby    3
ndoor °C

## **Product highlights**

- · Elegant style combinations, designed to complement any decor
- · Customizable color digital touch screen interface with multi-language support
- Configurable as 1H / 1C, 2H / 2C, 3H / 2C and Modulating (Analog) Heat / 2C for Rooftop units
- CO2 and fresh air inputs for Indoor Air Quality (IAQ) applications
- Suitable for both commercial and hospitality markets and systems
- Fully programmable control sequences using scripting
- · On board configuration interface utility
- Configurable sequence of operations
- Configurable Economizer
- Configurable Scheduler
- Change of value (COV) function for BMS integration
- · Humidity sensor with on-board dehumidification strategy
- Optional Passive Infrared (PIR) occupancy sensor
- · Advanced occupancy functions for commercial and lodging applications
- · Optional wireless door, window, motion and water leak sensors available

### Communication

- BACnet MS/TP or Modbus RTU (user selectable)
- ZigBee Pro (P) option for direct MPM integration (On-board or plug-in ZigBee Pro wireless module)
- BACnet/IP and email notification via Wi-Fi (with VCM8002V5031)

## Accessories

- CO2 sensor module
- CO2/temperature/humidity sensor
- · ZigBee wireless window, door, motion and water leak sensors

Description	
	Height: 12cm/4.72in
Dimension	Width: 8.6cm/3.38in
	Depth: 2.5cm/1in
Power	
	24 Vac 50/60Hz or 24 Vdc
Voltage	up to 6 VA power consumption
	94 VA Max. output load
Communication	

BACnet MS/TP, or Modbus RTU ZigBee Pro (with VCM8000V5045P or Protocol on-board ZigBee) BACnet/IP and email notification via

WI-I I (WILLI V CIVIOUUZ V 303 I)

Part Number	Description	BACnet MS/TP	RH sensor & control	PIR motion sensor	ZigBee Pro on-board
VT8650U5000B	RTU, heat pump & IAQ Controller	Х	Х		No*
VT8650U5500B	RTU, heat pump & IAQ Controller	Х	Х	X	No*
VT8650U5500BP	RTU, heat pump & IAQ Controller	Х	Х	X	X

<sup>\*</sup>Note: ZigBee Pro plug-in module is available

## Wireless Accessories

## BMS wireless integration

The GW2 Wireless Gateway Manager and Zigbee Pro VT7000/VT8000 Room Controllers are targeted for either retrofit or new construction applications where the addition of communicating field bus wiring within the building space is prohibitive. The GW2 and Communicating Room Controllers with a wireless field bus encourages the use of existing wiring utilized by existing electronic controller type controls.

## Wireless gateway

The GW2, when utilized in conjunction with the Room Controllers, will offer the integrator simple BACnet IP objects to integrate over standard building automation systems using familiar integration toolsets.

A maximum of 30 Room Controllers can be wirelessly attached to a single GW2.



## Communication and sensors

VT8000 Room Controllers can be adapted to communicate via one of three VCM modules: Wireless ZigBee Pro extended profile, CO<sub>2</sub> detection sensor, or Wi-Fi extended profile. This allows the VT8000 to pair with a variety of wireless sensors and switches for more precise control of HVAC systems in response to occupancy, as well as to communicate wirelessly for integration with BMS and networks.





Part Number	Description	Compatibility
VCM8002V5031	Wi-Fi module	VT8000 Room Controllers



Part Number	Description	Compatibility
SE8000BASEX4	Base thermostat connector	VT8000 Room Controllers



Part Number	Description	Compatibility
SED-CO2-G-5045	Wireless CO <sub>2</sub> sensor with room temperature and humidity	VT8000 Room Controllers
SED-TRH-G-5045	Wireless sensor with room temperature and humidity	VT8000 Room Controllers



Part Number	Description	Compatibility
SED-WMS-P-5045	Wireless wall mounted motion sensor	VT8000 Room Controllers



Part Number	Description	Compatibility
SED-MTH-G-5045	Motion/Temperature/Humidity Sensor	VT8000 Room Controllers



Part Number	Description	Compatibility
SED-WDC-G-5045	Window/Door Sensor	VT8000 Room Controllers



Part Number	Description	Compatibility
SED-WLS-G-5045	Water Leakage Sensor	VT8000 Room Controllers

VT7000 Room Controllers

The VT7000 Room Controllers offers a variety of application-specific products to increase the comfort of building occupants while reducing energy costs and consumption and accelerating return on investment. These digital controllers give users easy-to-install, thermostat-like functionality that can sense occupancy and adjust set-point or fan speed control. The VT7000 can be easily integrated into most Building Management Systems (BMS).







VT7200	VT7300 and VTR7300	VT7600
> Zoning, heating/cooling	> Fan coil, three-speed fan	> Rooftop or heat pump
Reheat control Induction units Chilled beam Under floor heating Perimeter radiant heat	Low-voltage, line-voltage and mixed-voltage fan coil unit control      Multiple fan speed, heating and cooling stages configurations      Humidity control options      Relay pack accessories for line-voltage and mixed-voltage applications      Zone control     Fin-tube radiators      Cabinet heaters      Radiant panel heaters      Electric re-heat zones      Terminal reheat	Economizer option     Humidification/dehumidification     Heat pump units     Rooftop, 3 heat/2 cool     Water source with dehumidification, 1 heat/2 cool

## VT7200 | Communicating and network-ready Variable Air Volume (VAV) zone controllers

Smart energy management has never been easier than with the VT7200. Designed for new construction or retrofit projects, the controllers dramatically decrease total costs by reducing installation time, configuration and commissioning time. The VT7200 provides the advanced features and monitoring functions required by modern building automation systems without the use of software and commissioning tools. This application is known as Variable Air Volume (VAV).

Part Numbe	Description	Output	PIR Cover	Communication
VT7200C5031	Zone Controller Net Ready Floating Output - VAV PD	Floating or on/off	No	Stand-alone (network ready
VT7200C5031B	Zone Controller BACnet Floating Output - VAV PD	Floating or on/off	No	BACnet
VT7200C5531B	PIR Zone Controller 2 On/Off or Floating Outputs	Floating or on/off	Yes	BACnet
VT7200C5531E	PIR Zone Controller 2 On/Off or Floating Outputs	Floating or on/off	Yes	Echelon
VT7200C5531P	PIR Zone Controller 2 On/Off or Floating Outputs	Floating or on/off	Yes	ZigBee Pro
VT7200C5531W	PIR Zone Controller 2 On/Off or Floating Outputs	Floating or on/off	Yes	ZigBee
VT7200F5031	Zone Controller Net Ready Analog Output - VAV PD	0 - 10 Vdc	No	Stand-alone (network ready
VT7200F5031B	Zone Controller BACnet Analog Output - VAV PD	0 - 10 Vdc	No	BACnet
VT7200F5531B	PIR Zone Controller 2 Analog 0-10V Outputs	0 - 10 Vdc	Yes	BACnet
VT7200F5531E	PIR Zone Controller 2 Analog 0-10V Outputs	0 - 10 Vdc	Yes	Echelon
VT7200F5531P	PIR Zone Controller 2 Analog 0-10V Outputs	0 - 10 Vdc	Yes	ZigBee Pro
VT7200F5531W	PIR Zone Controller 2 Analog 0-10V Outputs	0 - 10 Vdc	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VT7300 | Low voltage communicating and network-ready fan coil controllers

The VT7300 provides the advanced features and monitoring functions required by modern building automation systems without the use of software and commissioning tools. The VT7300 is a low voltage fan coil terminal equipment controller suitable for commercial and hospitality markets. It can also be used as a zone controller or mixed voltage solution.

## Commercial interface (local override)



Part Number	Description	Humidity	Output	PIR Cover	Communication
VT7350C5031	Fan Coil Unit Controller Net Ready Floating Output	Yes	Floating or on/off	No	Stand-alone (network ready)
VT7350C5031B	Fan Coil Unit Controller BACnet Floating Output	Yes	Floating or on/off	No	BACnet
VT7350C5531B	PIR Fan Coil Unit Controller BACnet Analog Output	Yes	Floating or on/off	Yes	BACnet
VT7350C5531E	PIR Fan Coil Unit Controller Echelon 2 On/Off or Floating Outputs	Yes	Floating or on/off	Yes	Echelon
VT7350C5531P	PIR Fan Coil Unit Controller ZigBee Pro 2 On/Off or Floating Outputs	Yes	Floating or on/off	Yes	ZigBee Pro
VT7350C5531W*	PIR Fan Coil Unit Controller ZigBee 2 On/ Off or Floating Outputs	Yes	Floating or on/off	Yes	ZigBee
VT7350F5031	Fan Coil Unit Controller Net Ready Analog Output	Yes	0 - 10 Vdc	No	Stand-alone (network ready)
VT7350F5031B	Fan Coil Unit Controller BACnet Analog Output	Yes	0 - 10 Vdc	No	BACnet
VT7350F5531B	PIR Fan Coil Unit Controller BACnet 2 Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	BACnet
VT7350F5531E	PIR Fan Coil Unit Controller Echelon 2 Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	Echelon
VT7350F5531P	PIR Fan Coil Unit Controller ZigBee Pro 2 Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	ZigBee Pro
VT7350F5531W*	PIR Fan Coil Unit Controller ZigBee 2 Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

### Hotel/lodging interface (°C/°F selection)



Part Number	Description	Humidity	Output	PIR Cover	Communication
VT7355C5031	Fan Coil Unit Control Net Ready Floating Output Hotel	Yes	Floating or on/off	No	Stand-alone (network ready)
VT7355C5031B	Fan Coil Unit Control BACnet Floating Output Hotel	Yes	Floating or on/off	No	BACnet
VT7355F5031	Fan Coil Unit Control Net Ready Analog Output Hotel	Yes	0 - 10 Vdc	No	Stand-alone (network ready)
VT7355F5031B	Fan Coil Unit Control BACnet Analog Output Hotel	Yes	0 - 10 Vdc	No	BACnet
VT7355C5531B	PIR Fan Coil Unit Controller BACnet 2 On/ Off or Floating Outputs	Yes	Floating or on/off	Yes	BACnet
VT7355C5531E	PIR Fan Coil Unit Controller Echelon 2 On/Off or Floating Outputs	Yes	Floating or on/off	Yes	Echelon
VT7355C5531P	PIR Fan Coil Unit Controller ZigBee Pro 2 On/Off or Floating Outputs	Yes	Floating or on/off	Yes	ZigBee Pro
VT7355C5531W*	PIR Fan Coil Unit Controller ZigBee 2 On/ Off or Floating Outputs	Yes	Floating or on/off	Yes	ZigBee
VT7355F5531B	PIR Fan Coil Unit Controller BACnet 2 On/ Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	BACnet
VT7355F5531E	PIR Fan Coil Unit Controller Echelon 2 Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	Echelon
VT7355F5531P	PIR Fan Coil Unit Controller ZigBee Pro 2 Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	ZigBee Pro
VT7355F5531W*	PIR Fan Coil Unit Controller ZigBee 2 Analog 0-10V Outputs	Yes	0 - 10 Vdc	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VT7300-ECM | ECM fan coil controllers

More and more engineers are commonly specifying fan coil units that function with electronically commutated motors, which offer better energy efficiency and reduced operating costs. The VT7300 ECM fan coil Controller allows you to capitalise on this additional energy savings by optimising fan control sequences of electronically commutated motors. The Controller is optimised to offer full proportional operation versus the traditional three-speed tap operation. This wall-mounted Controller features an easy-to-read digital display and built-in commissioning and configuration utility, temperature sensor and optional humidity and Passive Infrared (PIR) occupancy sensor cover.

## Commercial interface (local override) Description PIR Cover Communication **Part Number** ECM Fan Coil Unit Control BACnet Analog Output Communication Module VT7300F5031B-ECM No BACnet Hotel/lodging interface (°C/°F selection) PIR Cover **Part Number** Description Communication ECM Fan Coil Unit Control BACnet VT7305F5031B-ECM **BACnet** No **Analog Output Hotel**

## VTR7300 | Line-voltage fan coil terminal equipment controller with relay packs

The VTR7300 fan coil unit solution requires installation of only two components, the VTR7300 terminal equipment controller and the VC3000 relay pack (refer to "Relay Packs" on page 37 for more information). This allows reuse of existing line-voltage wiring between the fan coil unit and temperature controller, thereby reducing overall costs, labor, and installation time for both retrofit and new construction control projects.

### Commercial interface (local override) **Part Number** Description Humidity **PIR Cover Communication** Fan Coil Unit Control with Humidification Control Net VTR7350A5031 Stand-alone (network ready) Ready Communication Module Fan Coil Unit Control with Humidification Control BAC-VTR7350A5031B No **BACnet** Yes net Communication Module PIR Fan Coil Unit Control with Humidification Control VTR7350A5531B Yes Yes **BACnet BACnet Communication Module** PIR Fan Coil Unit Control with Humidification Control VTR7350A5531P Yes Yes ZigBee Pro ZigBee Pro Communication Module PIR Fan Coil Unit Control with Humidification Control VTR7350A5531W Yes Yes ZigBee ZigBee Communication Module

Hotel/lodging interface	(°C/°F selection)				
	Part Number	Description	Humidity	PIR Cover	Communication
	VTR7355A5031	Fan Coil Unit Control with Humidification Control Net Ready Hotel	Yes	No	Stand-alone (network ready)
	VTR7355A5031B	Fan Coil Unit Control with Humidification Control BACnet Hotel	Yes	No	BACnet
RoomTem 8 2 2 2 2 2 2 2 3 1 2	VTR7355A5531B	PIR Fan Coil Unit Control with Humidification Control BACnet Hotel	Yes	Yes	BACnet
	VTR7355A5531P	PIR Fan Coil Unit Control with Humidification Control ZigBee Pro Hotel	Yes	Yes	ZigBee Pro
	VTR7355A5531W*	PIR Fan Coil Unit Control with Humidification Control ZigBee Hotel	Yes	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VT7600 | Communicating and network-ready Rooftop controllers

Primarily designed for use in small to mid-sized commercial building applications, VT7600 room controllers can be installed in any building using a standard Rooftop or heat pump unit with a requirement for advanced fresh air control. Capable of controlling economiser-free cooling and demand-based ventilation strategies, the VT7600 provides fresh air measurement input right out of the box.

Part Numb	er Description	Sched.	Econo.	Heat/Cool Stages	Humidity	PIR Cover	Comm.
VT7652B50	Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool Net Ready	Yes	No	2H/2C	No	No	Stand-alone (network ready)
VT7652B50	Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool BACnet	Yes	No	2H/2C	No	No	BACnet
VT7652B55	PIR Rooftop Local Scheduling / Programmable Contro ler 2x Heat / 2x Cool BACnet	Yes	No	2H/2C	No	Yes	BACnet
VT7652B55	PIR Rooftop Local Scheduling / Programmable Controler 2x Heat / 2x Cool Echelon	Yes	No	2H/2C	No	Yes	Echelon
VT7652B5531P	PIR Rooftop Local Scheduling / Programmable Contro ler 2x Heat / 2x Cool ZigBee Pro	Yes	No	2H/2C	No	Yes	ZigBee Pro
VT7652B55	1W* PIR Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool ZigBee	Yes	No	2H/2C	No	Yes	ZigBee
VT7656B50	Rooftop Local Scheduling / Programmable Controller + ECO Net Ready	Yes	Yes	2H/2C	No	No	Stand-alone (network ready)
VT7656B50	Rooftop Local Scheduling / Programmable Controller + ECO BACnet	Yes	Yes	2H/2C	No	No	BACnet
VT7656B55	PIR Rooftop Local Scheduling / Programmable Contro ler + ECO BACnet	Yes	Yes	2H/2C	No	Yes	BACnet
VT7656B55	PIR Rooftop Local Scheduling / Programmable Controler + ECO Echelon	Yes	Yes	2H/2C	No	Yes	Echelon
VT7656B55	PIR Rooftop Local Scheduling / Programmable Contro ler + ECO ZigBee Pro	Yes	Yes	2H/2C	No	Yes	ZigBee Pro
VT7656B55	TWF PIR Rooftop Local Scheduling / Programmable Controller + ECO ZigBee	Yes	Yes	2H/2C	No	Yes	ZigBee
VT7657B50	Rooftop Local Scheduling / Programmable Controller Net Ready + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	No	Stand-alone (network ready)
VT7657B50	Rooftop Local Scheduling / Programmable Controller BACnet + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	No	BACnet
VT7657B55	1B PIR Rooftop Local Scheduling / Programmable Control ler BACnet + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	Yes	BACnet
VT7657B55	1E PIR Rooftop Local Scheduling / Programmable Contro ler Echelon + Humidification / Dehumidification Contro		No	2H/2C	Yes	Yes	Echelon
VT7657B55	PIR Rooftop Local Scheduling / Programmable Contro 1P ler ZigBee Pro + Humidification / Dehumidification Control	- Yes	No	2H/2C	Yes	Yes	ZigBee Pro
VT7657B55	TWT PIR Rooftop Local Scheduling / Programmable Control ler ZigBee + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VT7656E | Communicating and network-ready Indoor air quality controllers

Indoor air quality is increasingly becoming a major concern to businesses, building managers, tenants, and employees because of its direct impact on the comfort, well-being, and productivity of the building's occupants. The VT7656E indoor air quality Controller, along with a CO<sub>2</sub> sensor, is a cost-effective solution capable of controlling economiser-free cooling and demand-based ventilation strategies, while providing a fresh air measurement input. When connected to a building automation system, the Controller can monitor and verify the CO<sub>2</sub> and fresh air levels, ensuring optimal air quality and energy efficiency.

Part	Number	Description	Sched.	Heat/Cool Stages	PIR Cover	Comm.
VT765		Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO Net Ready	Yes	2H/2C	No	Stand-alone (network ready)
VT765		Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO BACnet	Yes	2H/2C	No	BACnet
VT765		PIR Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO BACnet	Yes	2H/2C	Yes	BACnet
VT765		PIR Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO ZigBee Pro	Yes	2H/2C	Yes	ZigBee Pro
VT765		PIR Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO ZigBee	Yes	2H/2C	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VT7652F | Communicating and network-ready Rooftop controllers for modulating heat

The new VT7652F Rooftop terminal equipment Controller with modulating heat can make your building more comfortable while still meeting the ventilation codes for minimum building fresh air requirements. The easy-to-install VT7652F includes modulating heat functionality, which allows the addition of an extra supply air temperature control loop to better control and condition the supply air levels for a more comfortable occupant environment.

Part Number	Description	Sched.	Heat/Cool	PIR Cover	Comm
T dit Hamison	2003p		Stages		
VT7652F5031	Modulating Heat Application Local Scheduling / Programmable Controller 1x Heat / 2x Cool Net Ready	Yes	1H (analog)/2C	No	Stand-alone (network ready
VT7652F5031B	Modulating Heat Application Local Scheduling / Programmable Controller 1x Heat / 2x Cool BACnet	Yes	1H (analog)/2C	No	BACnet
VT7652F5531B	PIR Modulating Heat Application Local Scheduling / Programmable Controller 1x Heat / 2x Cool BACnet	Yes	1H (analog)/2C	Yes	BACnet
VT7652F5531P	PIR Modulating Heat Application Local Scheduling / Programmable Controller 1x Heat / 2x Cool ZigBee Pro	Yes	1H (analog)/2C	Yes	ZigBee Pro
VT7652F5531W*	PIR Modulating Heat Application Local Scheduling / Programmable Controller 1x Heat / 2x Cool ZigBee	Yes	1H (analog)/2C	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VT7652H | Communicating and network-ready Heat pump controllers

Primarily designed for use in small to mid-sized commercial building applications, VT7600 room controllers can be installed in any building using a standard heat pump unit with a requirement for advanced fresh air control. Capable of controlling economiser-free cooling and demand-based ventilation strategies, the VT7600 provides fresh air measurement input right out of the box.

Part Number	Description	Sched.	Heat/Cool Stages	Humidity	PIR Cover	Comm.
VT7652H5031	Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool Net Ready	Yes	3H/2C	Yes	No	Stand-alone (network ready
VT7652H5031B	Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool BACnet	Yes	3H/2C	No	No	BACnet
VT7652H5531B	PIR Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool BACnet	Yes	3H/2C	No	Yes	BACnet
VT7652H5531E	PIR Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool Echelon	Yes	3H/2C	No	Yes	Echelon
VT7652H5531P	PIR Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool ZigBee Pro	Yes	3H/2C	No	Yes	ZigBee Pro
VT7652H5531W*	PIR Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool ZigBee	Yes	3H/2C	No	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VT7652W | Water source heat pump controllers

The new VT7652W water source heat pump Controller (with dedicated dehumidification sequences) provides exceptional control of water source heat pumps for commercial buildings. Common indoor air quality issues such as mold, mildew, condensation, poor occupant comfort, and overall building health can be effectively resolved in an energy-efficient manner. Simple to install and commission, this wall-mounted device monitors water temperature, as well as other points, offering added value without the additional costs related to more complex systems.

Part Number	Description	Sched.	Heat/Cool Stages	Humidity	PIR Cover	Comm.
VT7652W5031	Water Source Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool Net Ready	Yes	3H/2C	No	No	Stand-alone (network ready
VT7652W5031B	Water Source Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool BACnet	Yes	3H/2C	No	No	BACnet
VT7652W5531B	PIR Water Source Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool BACnet	Yes	3H/2C	Yes	Yes	BACnet
VT7652W5531P	PIR Water Source Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool ZigBee Pro	Yes	3H/2C	Yes	Yes	ZigBee Pro
VT7652W5531W*	PIR Water Source Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool ZigBee	Yes	3H/2C	Yes	Yes	ZigBee

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VZ7000 | Commercial zoning systems Variable Volume and Temperature (VVT)

The VZ commercial zoning system has been specifically designed to bring a simple scalable solution to mid-market commercial applications without the cost associated with a typical DDC zoning system. Models include Rooftop and heat pump units controlling analog heat, CO<sub>2</sub> levels, and indoor air quality. Zoning controllers that provide floating and analog damper control are also available. A single central Controller unit can support up to 32 individual zone controllers.

All zoning system controllers can be fitted with an on-board PIR occupancy sensor cover that allows for advanced occupancy strategies, enabling greater energy savings to zones during scheduled events when no occupants are present.

### Commercial zoning system - zone controllers



Part Number	Description	Output	PIR Cover	Communication
VZ7260C5031B	Zone System Control BACnet 2x Floating - Variable Volume & Temperature (VVT) Zone	Floating or on/off	No	BACnet
VZ7260C5031W*	Zone System Control ZigBee Wireless 2x Floating - Variable Volume & Temperature (VVT) Zone	Floating or on/off	No	Wireless
VZ7260F5031B	Zone System Control BACnet 2x Analog - Variable Volume & Temperature (VVT) Zone	0 - 10 Vdc	No	BACnet
VZ7260F5031W*	Zone System Control ZigBee Wireless 2x Analog - Variable Volume & Temperature (VVT) Zone	0 - 10 Vdc	No	Wireless

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## Commercial zoning system - Rooftop master controllers



Part Number	Description	Heat/Cool Stages	IAQ	Econo.	Mod. Heat	Com.
VZ7656E1031B	Zone System Control BACnet 2x Heat / 2x Cool Indoor Air Quality - Variable Volume & Temperature (VVT) Master	2H/2C	Yes	Yes	No	BACnet
VZ7656E1031W*	Zone System Control ZigBee Wireless 2x Heat / 2x Cool Indoor Air Quality - Variable Volume & Temperature (VVT) Master	2H/2C	Yes	Yes	No	Wireless
VZ7656F1031B	Zone System Control BACnet 1Heat / 2Cool Modulating Heat Application - Variable Volume & Temperature (VVT) Master	1H/2C	No	No	Yes	BACnet
VZ7656F1031W	Zone System Control ZigBee Wireless 1x Heat / 2x Cool Modulating Heat Application - Variable Volume & Temperature (VVT) Master	1H/2C	No	No	Yes	Wireless
VZ7656R1031B	Zone System Control BACnet 2x Heat / 2x Cool Rooftop - Variable Volume & Temperature (VVT) Master	2H/2C	No	No	No	BACnet
VZ7656R1031W*	Zone System Control ZigBee Wireless 2x Heat / 2x Cool Rooftop - Variable Volume & Temperature (VVT) Master	2H/2C	No	No	No	Wireless

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## Commercial zoning system - heat pump controllers



Part Number	Description	Communication
VZ7656H1031B	Zone System Control BACnet Heat Pump - Variable Volume & Temperature (VVT) Master	BACnet
VZ7656H1031W*	Zone System Control ZigBee Wireless Heat Pump - Variable Volume & Temperature (VVT) Master	Wireless

<sup>\*</sup> Model for replacement on existing projects only. Not compatible with the current wireless offer, "P" version thermostats and gateways.

## VH7200 | Humidistats

Viconics humidistats offer exceptional control of both humidification and dehumidification equipment found in typical commercial buildings. Models with advanced built-in functions such as a modulating high limit and outdoor temperature humidity setpoint reset are also available.

All models are available in BACnet® MS/TP or stand-alone "Network Ready" versions. All models contain a binary input, which can be set by the user to monitor an electrode humidifier canister service status or may be used as a general purpose service indicator.

The VH7200 humidity controller family is specifically designed for control of humidification and dehumidification equipment such as steam header direct injection, desiccant wheel, or stand-alone humidification / dehumidification equipment. The product features a complete embedded humidity control solution with an intuitive backlit LCD display that walks the installer through the configuration steps, making the process extremely simple. Accurate relative humidity control is achieved due to the product's unique PI time proportional control algorithm, which virtually eliminates humidity offset associated with traditional, differential-based humidity controllers.



Part Number	Application	Humidification Output	Dehumidifica Output
VH7200A1000	Model with Outdoor Reset only	On/Off 24 Vac	On-Off 24 Vac
VH7270F1000	Model with Outdoor Reset & Proportional High Limit	0-10 Vdc	On-Off 24 Vac
VH7270K1000	Model with Outdoor Reset & Proportional High Limit	0-10 Vdc & On/Off 24 Vac	On-Off 24 Vac

## Wireless Accessories

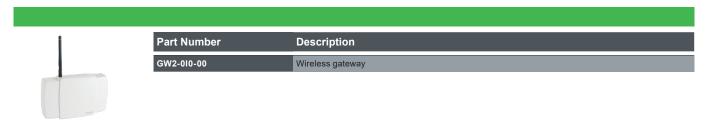
## BMS wireless integration

The GW2 Wireless Gateway Manager and Zigbee Pro VT7000/VT8000 Series Room Controllers are targeted for either retrofit or new construction applications where the addition of communicating field bus wiring within the building space is prohibitive. The GW2 and Communicating Room Controllers with a wireless field bus encourages the use of existing wiring utilized by existing electronic controller type controls.

## Wireless gateway

The GW2, when utilized in conjunction with the Room Controllers, will offer the integrator simple BACnet IP objects to integrate over standard building automation systems using familiar integration toolsets.

A maximum of 30 Room Controllers can be wirelessly attached to a single GW2.



From wired to wireless systems, remote sensors to communication boards and covers, VT7000 Room Controllers can be tailored for any application-specific needs.

## Covers

VT7000 Room Controllers are compatible with passive infrared cover accessories. Room controllers equipped with a passive infrared cover provide advanced active occupancy logic, which will automatically switch occupancy levels from 'occupied' to 'stand-by' and 'unoccupied' as appropriate. This built-in intelligence provides energy savings during occupied hours without sacrificing occupant comfort.



Part Number	Description	Compatibility
COV-BC-5031	Kit cover blind	VT7000 models
COV-FCU-C-5031	Cover for commercial room controllers	VT7300 models
COV-FCU-L-5031	Cover for hotel room controllers	VT7300 models
COV-RTUHP-5031	Cover for room controllers	VT7600 models
COV-ZN-5031	Cover for room controllers	VT7200 models
COV-PIR-BC-5031	PIR kit cover blind	VT7000 models
COV-PIR-FCU-C-5031	PIR cover for commercial room controllers	VT7300 models
COV-PIR-FCU-L-5031	PIR cover for hotel room controllers	VT7300 models
COV-PIR-RTUHP-5031	PIR cover for room controllers	VT7600 models
COV-PIR-ZN-5031	PIR cover for room controllers	VT7200 models

## Communication Adapters

VT7000 Room Controllers are network ready, designed to accept the addition of communication. With a network card available for field upgrade, your system can be networked to an integrated building management system for the most advanced control and functionality.

In the Part Number, please note that:

- W: Legacy ZigBee for replacement.
  P: ZigBee Pro, compatible with all room controllers..



Part Number	Description	Compatibility
VCM7000V5000W	Wireless Communication Card - 7000 - ZigBee Pro extended profile retrofit communication module	7000 Series Room Controllers (72, 73, R73, and 76)
VCM7000V5000P	Wireless Communication Card - 7000 - ZigBee proprietary wireless retrofit communication module	7000 Series Room Controllers (72, 73, R73, 76xx(B,H) and 76x7(B))
VCM7260Z5000B	BACnet replacement communication module	7260(C,F)
VCM7260Z5000W	ZigBee replacement communication module	7260(C,F)
VCM7300T5000B	Communication Module BACnet 73 with Relay Module - BACnet retrofit communication module	R73xx(A)
VCM7300T5000E	Communication Module LON 73 with Relay Module - Echelon retrofit communication module	R73xx(A)
VCM7300V5000B	BACnet Communication Card - 7200/7300 - BACnet retrofit communication module	7200(C,F) and 73xx(C,F)
VCM7300V5000E	LON Communication Card - 7200/7300 - Echelon retrofit communication module	7200(C,F) and 73xx(C,F)
VCM7600W5000B	BACnet retrofit communication module	76xx(W,E,F)
VCM7600W5000W	ZigBee proprietary wireless retrofit communication module	76xx(W,E,F)
VCM7600V5000B	BACnet Communication Card - BACnet retrofit communication module	76xx(B,H)
VCM7600V5000E	LON Communication Card - Echelon retrofit communication module	76xx(B,H)
VCM7607V5000B	BACnet Communication Card - 76X7 -BACnet retrofit communication module	76x7(B)
VCM7607V5000E	LON Communication Card - Echelon retrofit communication module	76x7(B)
VCM7656Z5000B	BACnet replacement communication module	Z7656(E,F,R,H)
VCM7656Z5000W	ZigBee replacement communication module	Z7656(E,F,R,H)

The VCM7607V5000E (terminal equipment Controller Echelon LonTalk communication adapter) is not available for: VT7600W, VT7600F Room Controller models.

## Remote Sensors

Our discreet line of wall mount room sensors is used for advanced room temperature sensing. Each model is equipped with three thermistors and two dip switches for various averaging combinations, with a temporary override key and an occupancy LED available in the advanced model.

# Part Number Description Duct-mounted changeover sensor 10K - Change Over Duct Sensing - Mounting: Through hole in duct, with eyelet Capsule type temperature sensor - Remote sensing easy to dissimulate for indoor and outdoor use - Water temperature sensing strapped on pipe or in an immersion well

Duct & Outside Air Sensors		
t_	Part Number	Description
	S2000D1000	Duct supply air sensor with junction box  - Remote return air temperature sensing with the sensor mounted on the return air duct.  - Outside air temperature sensing with the sensor installed in the fresh air plenum.  - Supply air temperature sensor
	S2020E1000	Outdoor air supply sensor  - Outside air temperature sensing with the sensor installed directly exposed to the elements.  - Sensor uses a water resistant NEMA 4 PVC enclosure for outdoor applications

	Part Number	Description
	\$3010W1031	Room sensor  - Remote room sensing  - 3 thermistors with 2 dip switches are provided with each sensor for various averaging combinations
a <u>Fa</u>	S3020W1031	Room sensor with temporary override key and occupancy LED  - Remote room sensing with override key and occupancy LED  - 3 thermistors with 2 dip switches are provided with each sensor for various averaging combinations

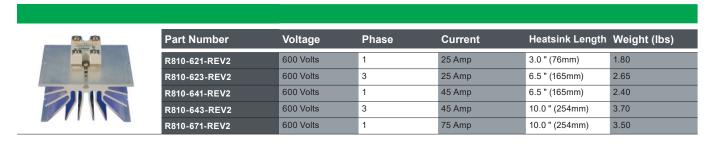
	Part Number	Description
	022-0003	Sensor Plenum 4K7
2	022-0114	Sensor changeover 47K

## **Electronic Heat Control**

Viconics Technologies turns up the heat when it comes to electric heat controls. Choose between solid state relays, solid state relays with integrated heat sink, SCR power controls with various choice of analog input signals, electronic relays for electric baseboard heaters and Vernier low voltage step controllers.

### **R810**

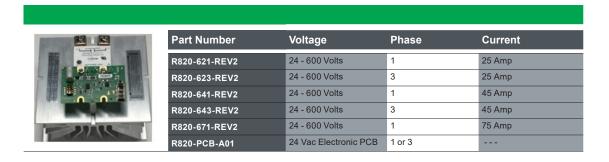
The R810 power switches have been designed for safe and reliable control of electric heat loads. This broad line of value priced products is used by most major North American duct heater manufacturers. The appropriate PWM or pulsed input signal can be provided by a DDC panel or a VT7225 thermostat



## **R820**

The R820 series SCR power controls are designed for cost effective, precise modulation of electric loads for most electric heating applications. (Applicable on resistive loads only)

The R820 series consists of SCR's power controls, c/w factory assembled heatsink for surface or in-panel mounting.



### **R850V**

The R850V series step controller is designed for cost effective, precise modulation of multi-stage control application. A common application is a multi step electric duct heater.

An integrated vernier control output will give a precise and full modulation of the load from 0 to 100% of the total capacity.



If more than 8 stage are required, the R850V-8 can be used as a master unit with another R850V as a slave unit. Adding another unit can bring the total step number up to 16.

## **R851B**

The R851B series step controller is designed for cost effective, precise modulation of multi-stage control application. A common application is a multi step electric boiler.

An integrated vernier control output will give a precise and full modulation of the load from 0 to 100% of the total capacity.

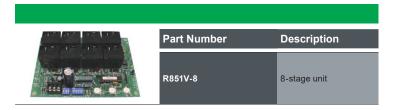


If more than 8 stages are required, the R851B-8 can be used as a master unit with another R851B as a slave unit. Adding another unit can bring the total step number up to 16.

## **R851V**

The R851V series step controller is designed for cost effective, precise modulation of multi-stage control application. A common application is a multi step electric duct heater.

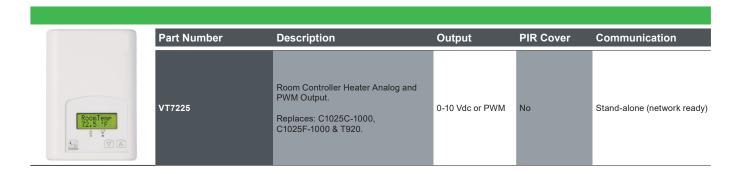
An integrated vernier control output will give a precise and full modulation of the load from 0 to 100% of the total capacity.



If more than 8 stages are required, the R851V-8 can be used as a master unit with another R851V as a slave unit. Adding another unit can bring the total step number up to 16.

## VT7225 | Modulating electric heat controllers

The VT7225 controllers are microcomputer-based, proportional and integral (PI) devices with one analog 0 to 10 Vdc output, one 8 Vdc and one 24 Vac proportioning pulsed output. The analog 0 to 10 Vdc modulating output can control the room or supply temperature by modulating directly a 0 to 10 Vdc SCR power controller. The Vdc and Vac pulsed outputs can control the room or supply temperature by modulating directly 4-32 Vdc triggered solid state relays (SSR's) using a time proportioning control algorithm on a 1 second time cycle.



## Room Controllers

VT7200 and VT7225	VT7300	VT7600
RoomTenp 72.5 °F	RoomTemp 72.5 °F 2 8 8	RoomTemp 72.5 °F
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Agency approval	CE, C-Tick, UL	CE, C-Tick, UL	CE, C-Tick, UL
Weight	0.34 kg (0.75 lb)	0.34 kg (0.75 lb)	0.34 kg (0.75 lb)
Dimensions (H x W x D)			
Non-PIR model	125 mm x 87 mm x 30 mm (4.92" x 3.41" x 1.16")	125 mm x 87 mm x 30 mm (4.92" x 3.41" x 1.16")	125 mm x 87 mm x 30 mm (4.92" x 3.41" x 1.16")
PIR model	125 mm x 87 mm x 38 mm (4.92" x 3.41" x 1.47")	125 mm x 87 mm x 38 mm (4.92" x 3.41" x 1.47")	125 mm x 87 mm x 38 mm (4.92" x 3.41" x 1.47")
Power supply	10 - 30 Vac (50/60 Hz)	10 - 30 Vac (50/60 Hz)	10 - 30 Vac (50/60 Hz)
Outputs			
Analog	0 - 10 VDC	0 - 10 VDC	0 - 10 VDC
Triac	30 Vac, 1 amp	30 Vac, 1 amp	30 Vac, 1 amp
Operating conditions	0 - 50 °C (32 - 122 °F) 0 - 95% RH (Non-condensing)	0 - 50 °C (32 - 122 °F) 0 - 95% RH (Non-condensing)	0 - 50 °C (32 - 122 °F) 0 - 95% RH (Non-condensing)
Temperature sensor type	10K Type 2	10K Type 2	10K Type 2
Temperature sensor accuracy	± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F)	± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F)	± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F)
Humidity sensor type*	N/A	Single point calibrated bulk polymer type sensor	Single point calibrated bulk polymer type sensor
Humidity sensor read range*	N/A	10 - 90% RH (Non-condensing)	10 - 90% RH (Non-condensing)
Humidity sensor accuracy*	N/A	± 5% @ 20 - 80% RH (Non-condensing)	± 5% @ 20 - 80% RH (Non-con- densing)
Dehumidification setpoint range*	N/A	30 to 95% RH	30 to 95% RH
Economizer accuracy*	N/A	N/A	± 3% typical

<sup>\*</sup> Available with selected models.

## Remote Sensors

### All sensors

Sensor type	10 K ohm NTC thermistor
Maximum wire length	1,525m (5000ft) for 24 GA wire and up

## **Room Sensors**



Operating conditions	0 °C to 50 °C (32 °F to 122 °F) 0% to 95% RH non-condensing
Storage conditions	-30 °C to 50 °C (-22 °F to 122 °F) 0% to 95% RH non-condensing
Dimensions	125 mm x 86 mm x 29 mm (4.94" x 3.38" x 1.13")
Approximate shipping weight	155 grams (0.34 lbs)
Enclosure material	ABS - FRI [WT1337V] UV stabilised

## **Duct Sensor**



Operating conditions	Up to 85 °C (185 °F) 0% to 95% RH non-condensing
Sensing bulb type	Plastic heatshrink
Wire length	305mm (12")
Probe length and diameter	114mm (4-1/2") and 6mm (1/4")

## **Duct Sensor**



Operating conditions	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 95% RH non-condensing
Storage conditions	-40 °C to 70 °C (-40 °F to 122 °F) 0% to 95% RH non-condensing
Approximate shipping weight	300 grams (0.7 lbs)
Probe tip plastic type	Fire retarding grade "HB" ABS

## **Outdoor Sensor**



Operating conditions	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 100% RH non-condensing
Storage conditions	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 100% RH non-condensing
Approximate shipping weight	500 grams (1.1 lbs)
Enclosure plastic type	NEMA 4 PVC

## Electronic Heat Control

## **R810 Power Switching Modules**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Power supply	4-32 Vdc time proportioning signal into $2K\Omega$ resistance

## **R820 Power Controls**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Thermostatic protection	Self-resetting. Auto shut off when SCR ambient temp. is above 82°C (180°F)
Power supply	24 Vac -15%, +10% 50/60 Hz; 2 VA Use a Class 1 (properly fused) or Class 2, CSA or UL recognized transformer

## **R850 Step Controller**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Relay outputs	Isolated relay 30 Vac @ 1.0 amps. max. per output, up to a maximum of 4.0 amps. total per R850 controller.
Vernier stage	Vdc pulsed: 6 Vdc, 30 mA max. 0 to 10 Vdc 5 mA max.
Input impedance	0 to 10 Vdc into 10 KΩ minimum
Power supply	24 Vac -15%, +10% 50/60 Hz; 4 VA  Use a Class 1 ( properly fused ) or Class 2, CSA or UL recognized transformer for power supply & relay outputs.

## R851B Step Controller



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing		
Relay outputs	Pilot duty: - 24 - 120 Vac – 720 VA - 240 Vac – 690 VA Motor load: - 120 Vac – 1 HP - 240 Vac – 2 HP		
Vernier stage	0 to 10 Vdc, 5 mA max.		
Input impedance	0 to 10 Vdc into 10 KΩ minimum		
Power supply	24 Vac -15%, +10% 50/60 Hz; up to 18 VA Use a Class 1 ( properly fused ) or Class 2, CSA or UL recognized transformer for power supply & relay outputs.		
UL recognized	File # E212649		

## **R851V Step Controller**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing		
Relay outputs	Pilot duty: - 24 - 120 Vac - 720 VA - 240 Vac - 690 VA  Motor load: - 120 Vac - 1 HP - 240 Vac - 2 HP		
Vernier stage	0 to 10 Vdc 5 mA max.  Vdc pulsed, 6 Vdc, 30 mA max		
Input impedance	0 to 10 Vdc into 10 KΩ minimum		
Power supply	24 Vac -15%, +10% 50/60 Hz; up to 18 VA  Use a Class 1 ( properly fused ) or Class 2, CSA or UL recognized transformer for power supply & relay outputs.		
UL recognized	File # E212649		

## Humidistats

## VH7200 Humidistats



Humidistat power requirements	19-30 Vac 50 or 60 Hz; 2 VA ( RC & C ) Class 2		
Operating conditions	0 °C to 50 °C ( 32 °F to 122 °F ) 0% to 95% R.H. non-condensing		
Storage conditions	-30 °C to 50 °C ( -22 °F to 122 °F ) 0% to 95% R.H. non-condensing		
Resolution	Temperature: ± 0.1 °C (± 0.2 °F) Humidity: ± 0.1%		
Control accuracy	Humidity: ± 5% RH from 20 to 100% RH at 50 to 90°F (10 to 32°C)		
Humidification setpoint range	10% RH to 90% RH		
Dehumidification setpoint range	15% RH to 95% RH		
Outdoor air temperature range	-40 °C to 50 °C ( -40 °F to 122 °F )		
Binary inputs	Relay dry contact only across "Scom" and "DI1" terminals		
Contact output rating	Each relay output: 30 Vac, 1 Amp. Max. / 30 Vac, 3 Amp. in-rush		
Analog output rating	0 t0 10 Vdc into 2KΩ resistance minimum		
Wire gauge	18 gauge maximum, 22 gauge recommended		
Dimensions	4.94" x 3.38" x 1.13"		
Approximate shipping weight	0.75 lb ( 0.34 kg )		



## Check in to comfort. Check out the savings.

Hotel guest comfort meets energy savings with our Series Room Controllers



## **Relay Packs**

## VC3000 | Relay Pack

A compact and easy to install Relay Pack for line-voltage fan coil units to be used in combination with room controllers. The VC3000 is a Relay Pack for line-voltage fan coil units. The device is used with VTR7300 and VTR8350 room controllers as a two component retrofit option.



## Features

The VC3000 Relay Pack features an onboard universal voltage power supply and line-voltage relays which directly drive fractional horsepower fan motors and valves. This eliminates the need to install and wire costly pilot relays and transformers.

No previous building automation training is required for the installation and commissioning process.

Existing line voltage wiring between the fan coil unit and temperature Controller can be reused further minimizing overall labor and installation costs.

Description	
Dimension	Height: 12cm/4.72in / Width: 8.6cm/3.38in / Depth: 2.5cm/1in
Power	
Voltage output to VTR7300 and VTR8350	7.0 VDC +/- 10% 2.4 watts minimum

Part Number	Details
VC3300E5000	Fan Coil Unit Relay Pack 3 slave fan outputs
VC3400E5000	Transformer Relay Pack 4 relay outputs 1 smart Vdc output 4 inputs
VC3404E5000	Fan Coil Unit Relay Pack 4 relay outputs 1 smart Vdc output 4 inputs
VC3500E5000	Transformer Relay Pack 5 relay outputs 4 inputs
VC3504E5000	Fan Coil Unit Relay Pack 5 relay fan outputs 4 outputs

## **Relay Packs**

## VC1300 | Mixed Voltage fan-coil package

A compact and easy to install Relay Pack for fan control for Mixed Voltages with 24 Vac transformer units to be used in combination with VT7300 and VT8350 room controllers as a two component Mixed Voltage solution.



## **Mixed Voltage Application**

In combination with the VT7300/VT8350 Series room controllers, the VC1300 allows control of a fan-coil requiring Mixed Voltage for the following:

- · Line voltage for the 3-speed fan control (115 Vac unit)
- Low voltage for valve control
- · LED indication of relay status

Description		
Dimension		Height: 5cm/2in / Width: 14cm/5.5in / Depth: 17cm/6.7in
Power		
Voltage		110-120 Vac 1 phase 50/60Hz
Contacts ratings		Resistive: 7A / 1680 W ; Motor and or compressor: ¼ Hp / 10 LRA / 2.5 FLA approved for 30,000 operations at 240 Vac
24 Vac low voltage power	output	0.5A, 12 VA max
Outputs		
Number of outputs		3 on/off outputs
Part Number	Description	
VC1300E5000	Fan coil relay board	115 Vac for Mixed Voltages with 24 Vac Transformer

## VC2300 | Mixed Voltage fan-coil package

A compact and easy to install Relay Pack for fan control for Mixed Voltages with 24 Vac transformer units to be used in combination with VT7300 and VT8350 room controllers as a two component Mixed Voltage solution.



## **Mixed Voltage Application**

In combination with the VT7300/VT8350 Series room controllers, the VC2300 allows control of a fan-coil requiring Mixed Voltage for the following:

- Line voltage for the 3-speed fan control (230 Vac unit)
- Low voltage for valve control
- LED indication of relay status

Description	
Dimension	Height: 5cm/2in / Width: 14cm/5.5in / Depth: 17cm/6.7in
Power	
Voltage	220-240 Vac 1 phase 50/60Hz
Contacts ratings	Resistive: 7A / 1680 W; Motor and or compressor: ¼ Hp / 10 LRA / 2.5 FLA approved for 30,000 operations at 240 Vac
24 Vac low voltage power output	0.5A, 12 VA max
Outputs	
Number of outputs	3 on/off outputs

Part Number	Description
VC2300E5000	Fan coil relay board 230 Vac for Mixed Voltages with 24 Vac Transformer



# Energy savings for a healthy bottom line

Increase the comfort of patients, visitors, and employees while reducing energy consumption with our Series Room Controllers





## **Commercial buildings**

Viconics Room Controllers allow users to save costs and energy while providing a comfortable environment for maximum productivity. The system can be modified on site to match your specific energy conservation needs.



### Retail

Enhance your system operation and efficiency with the room controllers. From a stand-alone device to simplified building management, Viconics Room Controllers are ideal for your ever-changing location.



## Healthcare

Gain full room control of your environment, whether it's a patient room, waiting room, or anywhere within your facility. Our Room Controllers give you the flexibility to customise and configure based on your needs.



## Hotels/lodging

Guest comfort meets energy efficiency with Room Controllers. The intuitive user interface allows guests to control their own environments while our occupancy sensor and simple programming ensure efficiency.



## **Education**

Whether it's a large campus with multiple buildings or a single primary school, the Room Controllers allow for scalability to control a wide variety of environments through occupied and unoccupied periods.



For more information, please visit www.viconics.com