

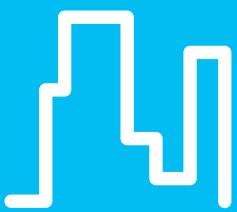
# VT8000 and VT7000 Room Controllers

## 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.

---



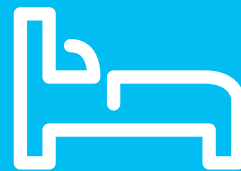
Commercial



Retail



Healthcare



Hotels



Education

# VT8000 or VT7000

## Common features

### Easy to install

No need to interrupt operations when installing room controllers. You can re-use existing wiring, 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.



On-board relative humidity sensor

Optional on-board PIR motion sensor



The power to choose for customers who need more.

- > Several display color schemes to match any décor.
- > A 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.
- > Use the Uploader Tool to reduce commissioning time in large scale installations.

Simply the most cost-effective option on the market.

# Table of Contents

## VT8000 Room Controllers

VZ8250 .....	10
VTR8350 .....	11
VT8350 .....	12
VT8650 .....	13

## Accessories

CO2 Sensor .....	14
Base .....	14

## VT7000 Room Controllers

VT7200 .....	17
VT7300 .....	18
VT7300-ECM .....	19
VTR7300 .....	19
VT7600 .....	20
VT7656E .....	21
VT7652F .....	21
VT7652H .....	21
VT7652W .....	22
VZ7000 .....	23
VH7200 .....	24

## Accessories

Wireless Accessories .....	25
Covers .....	25
Communication Adapters .....	26
Remote Sensors .....	27
Electronic Heat Control .....	28

## Specifications

Room Controllers .....	30
Remote Sensors .....	31
Electronic Heat Control .....	32
Humidistats .....	33

## Relay Packs

VC3000 .....	36
VC2300 .....	37

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

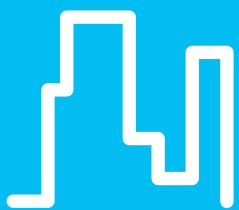


# Reduce energy waste & improve comfort.

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.



Building



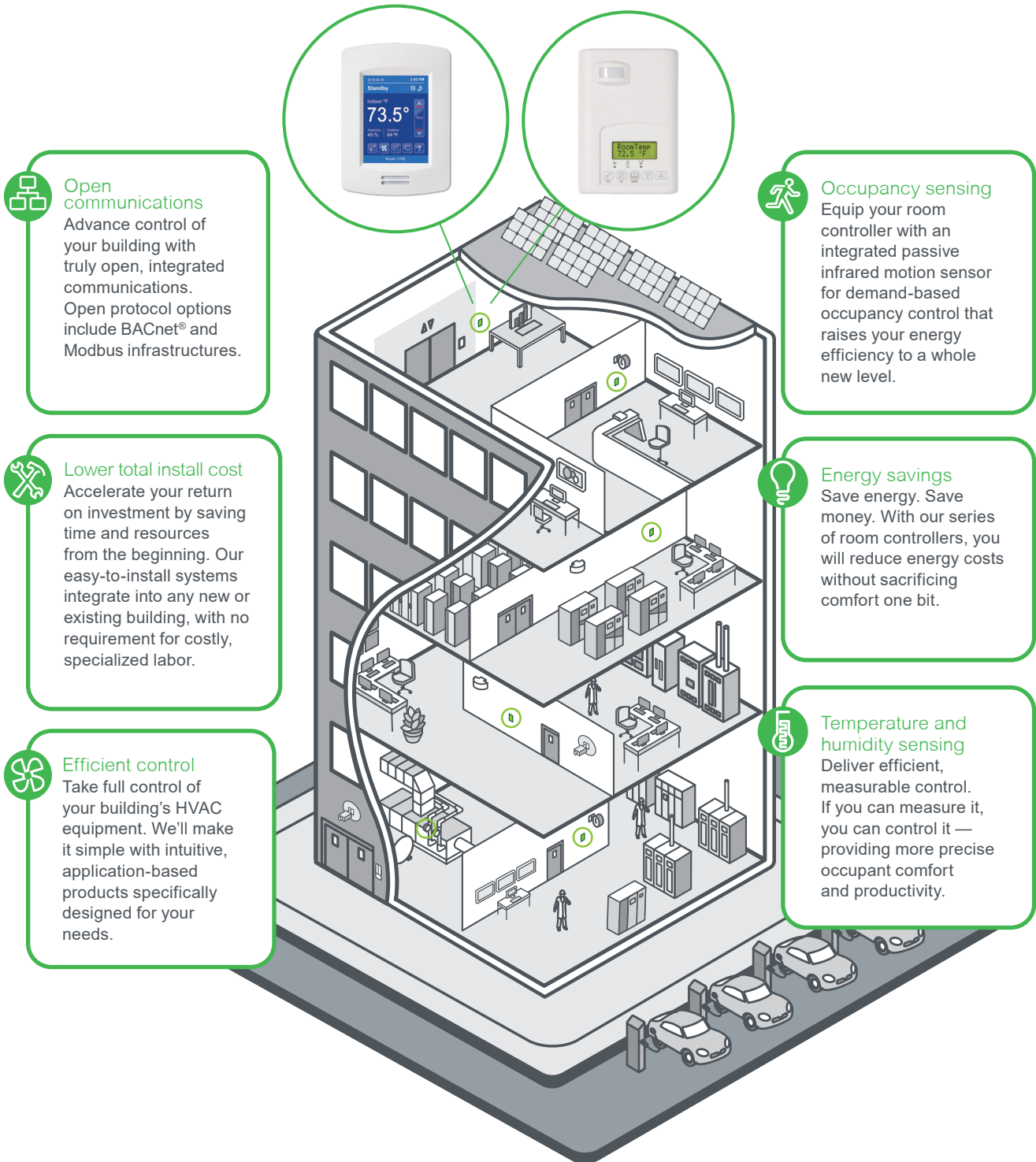
Efficient control



Green energy

# 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 greener, Schneider Electric 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

- A configurable sequence of operations
- Wired BACnet MS/TP or wired Modbus RTU network protocols
- Scheduler
- Programmable with Lua4RC to modify control sequences or override inputs and outputs
- On-board relative humidity sensor with dehumidification control sequences
- Optional on-board PIR motion sensor with occupancy-based control sequences
- Firmware updates via USB

VZ8250	VTR8350 (with VC3000)	VT8350	VT8650
<p>➤ Variable Air Volume (VAV) units</p>	<p>➤ Line voltage fan coil units</p>	<p>➤ Low voltage fan coil units</p> <p>➤ Mixed voltage fan coil units</p> <p>➤ Zone control</p>	<p>➤ Rooftop units</p> <p>➤ Heat pumps</p> <p>➤ Indoor air quality</p>
<p><b>Variable Air Volume (VAV) units</b></p> <ul style="list-style-type: none"> <li>• Pressure dependent and independent VAV system</li> <li>• Fan speed and sequence of operations</li> <li>• ECM or On/Off fan control</li> <li>• Duct and/or baseboard heaters</li> </ul>	<p><b>Line voltage fan coil units</b></p> <ul style="list-style-type: none"> <li>• Requires VC3000 Relay Pack</li> <li>• Fan speed and sequence of operation</li> <li>• Two pipe</li> <li>• Four pipe</li> <li>• ECM fan control</li> </ul>	<p><b>Low voltage fan coil units</b></p> <ul style="list-style-type: none"> <li>• Fan speed and sequence of operation</li> <li>• Two pipe</li> <li>• Four pipe</li> <li>• ECM fan control</li> </ul> <p><b>Mixed voltage fan coil units</b></p> <ul style="list-style-type: none"> <li>• Requires VC2300 Relay Pack</li> </ul>	<p><b>Rooftop units, heat pumps, and indoor air quality</b></p> <ul style="list-style-type: none"> <li>• Economizer</li> <li>• CO2 sensor input</li> <li>• Fresh Air Station input</li> </ul> <p><b>Configurable stages</b></p> <ul style="list-style-type: none"> <li>• 1 heat/1 cool</li> <li>• 2 heat/2 cool</li> <li>• Modulation heat/2 cool</li> <li>• 3 heat/2 cool</li> </ul>

**Digital stand-alone and communicating room controllers**

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

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. An elegantly simple casing combines with configurable screen colors to match the decor. Display your 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
- 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
- Wired BACnet MS/TP or wired Modbus RTU network protocols for BMS integration
- Humidity sensor
- Configurable I/O
- Optional PIR motion sensor
- Advanced occupancy functions for commercial and lodging applications
- Fresh air control (requires a CO<sub>2</sub> sensor)

**Communication**

- BACnet MS/TP or Modbus RTU (user selectable)

**Accessories**

- CO<sub>2</sub> sensor module

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

Part Number	Description	RH sensor	PIR motion sensor	BACnet MS/TP
VZ8250U5000B	VAV Pressure Dependant/Independant Controller	X		X
VZ8250U5500B	VAV Pressure Dependant/Independant Controller	X	X	X

**Digital stand-alone and communicating room controllers**

**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 36 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. 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
- 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
- Wired BACnet MS/TP or wired Modbus RTU network protocols 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

**Communication**

- BACnet MS/TP or Modbus RTU (user selectable)

**Accessories**

- The VC3000 Relay Pack is a necessary accessory for retrofit solution to use with the VTR8350 room controller. Refer to "Relay Packs" on page 36 for more information (later in this document).
- CO<sub>2</sub> sensor module

Description	
Dimension	Height: 12cm/4.72in Width: 8.6cm/3.38in Depth: 2.5cm/1in
Power	
Voltage (VTR8000)	Typical: 7 Vdc from VC3000 Alternate: 24 Vac 50/60Hz or 24 Vdc up to 4 VA power consumption
Voltage (VC3000)	90 - 240 Vac universal, 50/60Hz
Communication	
Protocol	Stand-alone, BACnet MS/TP, or Modbus RTU

Part Number	Description	RH sensor & control	PIR motion sensor	BACnet MS/TP
VTR8350A5000B	Line voltage fan coil Controller	X		X
VTR8350A5500B	Line voltage fan coil Controller	X	X	X

## Digital stand-alone and communicating room controllers

### 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.
- Wired BACnet MS/TP or wired Modbus RTU network protocols for BMS integration
- Humidity sensor with on-board dehumidification strategy
- Optional PIR motion sensor
- Advanced occupancy and scheduling functions for commercial and lodging applications

#### Communication

- BACnet MS/TP or Modbus RTU (user selectable)

#### Accessories

- The VC2300 mixed voltage fan-coil package is a retrofit solution to use with the SE8350 room controller. Refer to "Relay Packs" on page 36 for more information (later in this document).  
CO<sub>2</sub> sensor module

#### Description

Dimension	Height: 12cm/4.72in
	Width: 8.6cm/3.38in
	Depth: 2.5cm/1in

#### Power

Voltage	24 Vac 50/60Hz or 24 Vdc
	up to 6 VA power consumption
	94 VA Max. output load

#### Communication

Protocol	BACnet MS/TP, or Modbus RTU
----------	-----------------------------

Part Number	Description	RH sensor & control	PIR motion sensor	BACnet MS/TP
VT8350U5000B	Low voltage fan coil Controller	X		X
VT8350U5500B	Low voltage fan coil Controller	X	X	X

## Digital stand-alone and communicating room controllers

### 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.



#### 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 and heat pump 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
- Wired BACnet MS/TP or wired Modbus RTU network protocols for BMS integration
- Humidity sensor with on-board dehumidification strategy
- Optional Passive Infrared (PIR) occupancy sensor
- Advanced occupancy functions for commercial and lodging applications

#### Communication

- BACnet MS/TP or Modbus RTU (user selectable)

#### Accessories

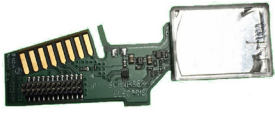
- CO2 sensor module

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

Part Number	Description	RH sensor & control	PIR motion sensor	BACnet MS/TP
VT8650U5000B	RTU, heat pump & IAQ Controller	X		X
VT8650U5500B	RTU, heat pump & IAQ Controller	X	X	X

## Accessories

# CO2 Sensor



Part Number	Description	Compatibility
VCM8001V5045	CO <sub>2</sub> sensor module	VT8000 Room Controllers

# Base



Part Number	Description	Compatibility
VT8000BASEX4	Base thermostat connector	VT8000 Room Controllers

# VT7000 Room Controllers

## Digital stand-alone and communicating 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
<p>&gt; Zone control, heating/cooling</p>	<p>&gt; Fan coil, three-speed fan</p>	<p>&gt; Rooftop or heat pump</p>
<ul style="list-style-type: none"> <li>• Reheat control</li> <li>• Induction units</li> <li>• Chilled beam</li> <li>• Under floor heating</li> <li>• Perimeter radiant heat</li> </ul>	<ul style="list-style-type: none"> <li>• Low-voltage, line-voltage and mixed-voltage fan coil unit control</li> <li>• Multiple fan speed, heating and cooling stages configurations</li> <li>• Humidity control options</li> <li>• Relay pack accessories for line-voltage and mixed-voltage applications</li> <li><b>Zone control</b> <ul style="list-style-type: none"> <li>• Fin-tube radiators</li> <li>• Cabinet heaters</li> <li>• Radiant panel heaters</li> <li>• Electric re-heat zones</li> <li>• Terminal reheat</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Economizer option</li> <li>• Humidification/dehumidification</li> <li>• Heat pump units</li> <li>• Rooftop, 3 heat/2 cool</li> <li>• Water source with dehumidification, 1 heat/2 cool</li> </ul>

**Digital stand-alone and communicating room controllers**

VT7200 | Communicating and network-ready 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.



Part Number	Description	Output	PIR Cover	Communication
VT7200C5031	Zone Controller Net Ready Floating Output	Floating or on/off	No	Stand-alone (network ready)
VT7200C5031B	Zone Controller BACnet Floating Output	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	0 - 10 Vdc	No	Stand-alone (network ready)
VT7200F5031B	Zone Controller BACnet Analog Output	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

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

## Digital stand-alone and communicating room controllers

### 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

\* 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

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

**Digital stand-alone and communicating room controllers**

**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)**



Part Number	Description	PIR Cover	Communication
VT7300F5031B-ECM	ECM Fan Coil Unit Control BACnet Analog Output Communication Module	No	BACnet

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



Part Number	Description	PIR Cover	Communication
VT7305F5031B-ECM	ECM Fan Coil Unit Control BACnet Analog Output Hotel	No	BACnet

**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 36 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
VTR7350A5031	Fan Coil Unit Control with Humidification Control Net Ready Communication Module	Yes	No	Stand-alone (network ready)
VTR7350A5031B	Fan Coil Unit Control with Humidification Control BACnet Communication Module	Yes	No	BACnet
VTR7350A5531B	PIR Fan Coil Unit Control with Humidification Control BACnet Communication Module	Yes	Yes	BACnet
VTR7350A5531P	PIR Fan Coil Unit Control with Humidification Control Zigbee Pro Communication Module	Yes	Yes	Zigbee Pro
VTR7350A5531W*	PIR Fan Coil Unit Control with Humidification Control Zigbee Communication Module	Yes	Yes	Zigbee

**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
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

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

**Digital stand-alone and communicating room controllers**

**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 Number	Description	Sched.	Econo.	Heat/Cool Stages	Humidity	PIR Cover	Comm.
VT7652B5031	Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool Net Ready	Yes	No	2H/2C	No	No	Stand-alone (network ready)
VT7652B5031B	Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool BACnet	Yes	No	2H/2C	No	No	BACnet
VT7652B5531B	PIR Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool BACnet	Yes	No	2H/2C	No	Yes	BACnet
VT7652B5531E	PIR Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool Echelon	Yes	No	2H/2C	No	Yes	Echelon
VT7652B5531P	PIR Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool Zigbee Pro	Yes	No	2H/2C	No	Yes	Zigbee Pro
VT7652B5531W*	PIR Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool Zigbee	Yes	No	2H/2C	No	Yes	Zigbee
VT7656B5031	Rooftop Local Scheduling / Programmable Controller + ECO Net Ready	Yes	Yes	2H/2C	No	No	Stand-alone (network ready)
VT7656B5031B	Rooftop Local Scheduling / Programmable Controller + ECO BACnet	Yes	Yes	2H/2C	No	No	BACnet
VT7656B5531B	PIR Rooftop Local Scheduling / Programmable Controller + ECO BACnet	Yes	Yes	2H/2C	No	Yes	BACnet
VT7656B5531E	PIR Rooftop Local Scheduling / Programmable Controller + ECO Echelon	Yes	Yes	2H/2C	No	Yes	Echelon
VT7656B5531P	PIR Rooftop Local Scheduling / Programmable Controller + ECO Zigbee Pro	Yes	Yes	2H/2C	No	Yes	Zigbee Pro
VT7656B5531W*	PIR Rooftop Local Scheduling / Programmable Controller + ECO Zigbee	Yes	Yes	2H/2C	No	Yes	Zigbee
VT7657B5031	Rooftop Local Scheduling / Programmable Controller Net Ready + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	No	Stand-alone (network ready)
VT7657B5031B	Rooftop Local Scheduling / Programmable Controller BACnet + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	No	BACnet
VT7657B5531B	PIR Rooftop Local Scheduling / Programmable Controller BACnet + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	Yes	BACnet
VT7657B5531E	PIR Rooftop Local Scheduling / Programmable Controller Echelon + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	Yes	Echelon
VT7657B5531P	PIR Rooftop Local Scheduling / Programmable Controller Zigbee Pro + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	Yes	Zigbee Pro
VT7657B5531W*	PIR Rooftop Local Scheduling / Programmable Controller Zigbee + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	Yes	Zigbee

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

## Digital stand-alone and communicating room controllers

### 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.
VT7656E5031	Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO Net Ready	Yes	2H/2C	No	Stand-alone (network ready)
VT7656E5031B	Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO BACnet	Yes	2H/2C	No	BACnet
VT7656E5531B	PIR Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO BACnet	Yes	2H/2C	Yes	BACnet
VT7656E5531P	PIR Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO Zigbee Pro	Yes	2H/2C	Yes	Zigbee Pro
VT7656E5531W*	PIR Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO Zigbee	Yes	2H/2C	Yes	Zigbee

\* 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 Stages	PIR Cover	Comm.
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

\* 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

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

**Digital stand-alone and communicating room controllers**

**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

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

**Digital stand-alone and communicating room controllers**

**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

\* 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

\* 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

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

## Digital stand-alone and communicating room controllers

### 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	Dehumidification 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

**Accessories**

# Wireless Accessories

## BMS wireless integration

The wireless versions of the VT7000 room controllers provide a simple yet powerful solution which targets such retrofit installations where running new communication wiring is cost prohibitive. The wireless room controllers can dramatically reduce project installation costs by re-using the existing control wiring already in place between older electronic thermostats and the terminal equipment. No new network wires are required since the controllers rely on a fully integrated Zigbee wireless mesh network infrastructure. Wireless VT7000 room controller devices can connect to a wide variety of Zigbee enabled BMS servers or controllers, providing remote management and supervision of the system through the BMS Workstation client.

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

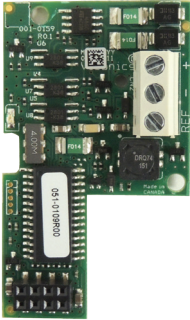
## Accessories

# 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 proprietary wireless retrofit communication module	7000 Series Room Controllers (72, 73, R73, and 76)
VCM7000V5000P	Wireless Communication Card - 7000 - Zigbee Pro extended profile 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.

**Accessories**



# 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.


**Duct-Mounted Temperature Sensors**

	Part Number	Description
	S1010D1000	Duct-mounted changeover sensor 10K - Change Over Duct Sensing - Mounting: Through hole in duct, with eyelet
	S1010E1000	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**

	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

**Room Sensors**

	Part Number	Description
	S3010W1031	Room sensor - Remote room sensing - 3 thermistors with 2 dip switches are provided with each sensor for various averaging combinations
	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

**Changeover Sensors**

	Part Number	Description
	022-0114	Sensor changeover 47K

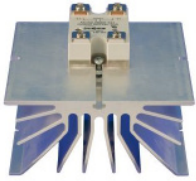
Accessories

# 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.




Part Number	Voltage	Phase	Current	Heatsink Length	Weight (lbs)
R810-621-REV2	600 Volts	1	25 Amp	3.0 " (76mm)	1.80
R810-623-REV2	600 Volts	3	25 Amp	6.5 " (165mm)	2.65
R810-641-REV2	600 Volts	1	45 Amp	6.5 " (165mm)	2.40
R810-643-REV2	600 Volts	3	45 Amp	10.0 " (254mm)	3.70
R810-671-REV2	600 Volts	1	75 Amp	10.0 " (254mm)	3.50

## 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.




Part Number	Voltage	Phase	Current
R820-621-REV2	24 - 600 Volts	1	25 Amp
R820-623-REV2	24 - 600 Volts	3	25 Amp
R820-641-REV2	24 - 600 Volts	1	45 Amp
R820-643-REV2	24 - 600 Volts	3	45 Amp
R820-671-REV2	24 - 600 Volts	1	75 Amp
R820-PCB-A01	24 Vac Electronic PCB	1 or 3	---

## 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.



Part Number	Description
R850V-8	8-stage unit

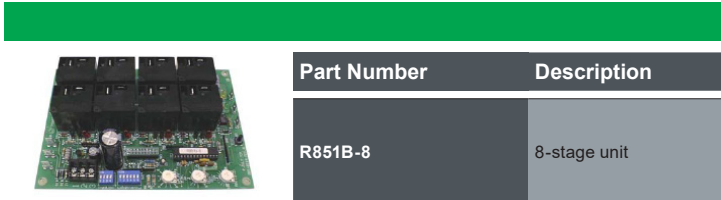
If more than 8 stage are required, the R850V-8 can be used as a master unit with another R850V as a slave unit. Adding another unit can bring the total step number up to 16.

## Accessories

### 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.

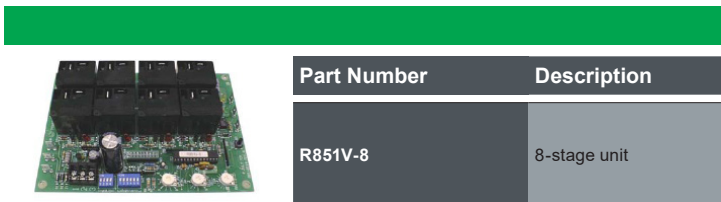


If more than 8 stages are required, the R851B-8 can be used as a master unit with another R851B as a slave unit. Adding another unit can bring the total step number up to 16.

### 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.

Part Number	Description	Output	PIR Cover	Communication
VT7225	Room Controller Heater Analog and PWM Output. Replaces: C1025C-1000, C1025F-1000 & T920.	0-10 Vdc or PWM	No	Stand-alone (network ready)

Specifications

# Room Controllers

VT7200 and VT7225



VT7300



VT7600



<b>Agency approval</b>	CE, C-Tick, UL	CE, C-Tick, UL	CE, C-Tick, UL
<b>Weight</b>	0.34 kg (0.75 lb)	0.34 kg (0.75 lb)	0.34 kg (0.75 lb)
<b>Dimensions (H x W x D)</b>			
<b>Non-PIR model</b>	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")
<b>PIR model</b>	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")
<b>Power supply</b>	19 - 30 Vac (50/60 Hz)	19 - 30 Vac (50/60 Hz)	19 - 30 Vac (50/60 Hz)
<b>Outputs</b>			
<b>Analog</b>	0 - 10 VDC	0 - 10 VDC	0 - 10 VDC
<b>Triac</b>	30 Vac, 1 amp	30 Vac, 1 amp	30 Vac, 1 amp
<b>Operating conditions</b>	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)
<b>Temperature sensor type</b>	10K Type 2	10K Type 2	10K Type 2
<b>Temperature sensor accuracy</b>	± 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)
<b>Humidity sensor type*</b>	N/A	Single point calibrated bulk polymer type sensor	Single point calibrated bulk polymer type sensor
<b>Humidity sensor read range*</b>	N/A	10 - 90% RH (Non-condensing)	10 - 90% RH (Non-condensing)
<b>Humidity sensor accuracy*</b>	N/A	± 5% @ 20 - 80% RH (Non-condensing)	± 5% @ 20 - 80% RH (Non-condensing)
<b>Dehumidification setpoint range*</b>	N/A	30 to 95% RH	30 to 95% RH
<b>Economizer accuracy*</b>	N/A	N/A	± 3% typical

\* Available with selected models.

Specifications

# Remote Sensors

All sensors

<b>Sensor type</b>	10 K ohm type 2 NTC thermistor
<b>Maximum wire length</b>	1,525m (5000ft) for 24 GA wire and up

Room Sensors



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

Duct Sensor



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

Duct Sensor



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

Outdoor Sensor

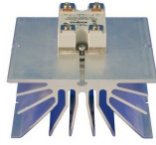


<b>Operating conditions</b>	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 100% RH non-condensing
<b>Storage conditions</b>	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 100% RH non-condensing
<b>Approximate shipping weight</b>	500 grams (1.1 lbs)
<b>Enclosure plastic type</b>	NEMA 4 PVC

Specifications

# Electronic Heat Control

## R810 Power Switching Modules



<b>Operating conditions</b>	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
<b>Power supply</b>	4-32 Vdc time proportioning signal into 2KΩ resistance

## R820 Power Controls



<b>Operating conditions</b>	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
<b>Thermostatic protection</b>	Self-resetting. Auto shut off when SCR ambient temp. is above 82°C (180°F)
<b>Power supply</b>	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



<b>Operating conditions</b>	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
<b>Relay outputs</b>	Isolated relay 30 Vac @ 1.0 amps. max. per output, up to a maximum of 4.0 amps. total per R850 controller.
<b>Vernier stage</b>	Vdc pulsed: 6 Vdc, 30 mA max. 0 to 10 Vdc 5 mA max.
<b>Input impedance</b>	0 to 10 Vdc into 10 KΩ minimum
<b>Power supply</b>	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



<b>Operating conditions</b>	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
<b>Relay outputs</b>	Pilot duty: - 24 - 120 Vac – 720 VA - 240 Vac – 690 VA Motor load: - 120 Vac – 1 HP - 240 Vac – 2 HP
<b>Vernier stage</b>	0 to 10 Vdc, 5 mA max.
<b>Input impedance</b>	0 to 10 Vdc into 10 KΩ minimum
<b>Power supply</b>	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.
<b>UL recognized</b>	File # E212649

## Specifications

### R851V Step Controller



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

## Humidistats

### VH7200 Humidistats



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

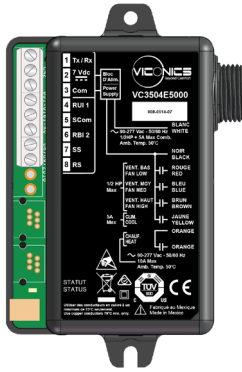


Relay Packs

## 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 speed relay outputs
VC3400E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 1 valve relay output 1 smart Vdc output
VC3404E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 1 valve relay output 1 smart Vdc output 4 inputs
VC3500E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 2 valve relay outputs
VC3504E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 2 valve relay outputs 4 inputs
VC3514E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 2 valve relay outputs 4 inputs 1 occupancy output

**Relay Packs**

**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:

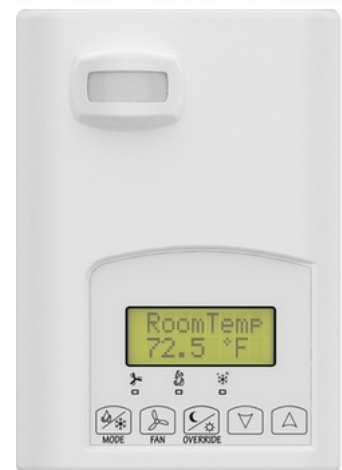
- Line voltage for the 3-speed fan control (230 Vac unit)
- Low voltage for valve control
- LED indication of relay status

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](http://www.viconics.com)