

# TRCn500nnnn-VC Viconics Room Controller

Application-specific and programmable Room Controller suitable for commercial and high-end hospitality markets.

The Viconics Room Controller:

- VRC3500 is a low-voltage fan coil unit and zone control Room Controller.
- VRC6500 is a rooftop, heat pump, and indoor air quality Room Controller.

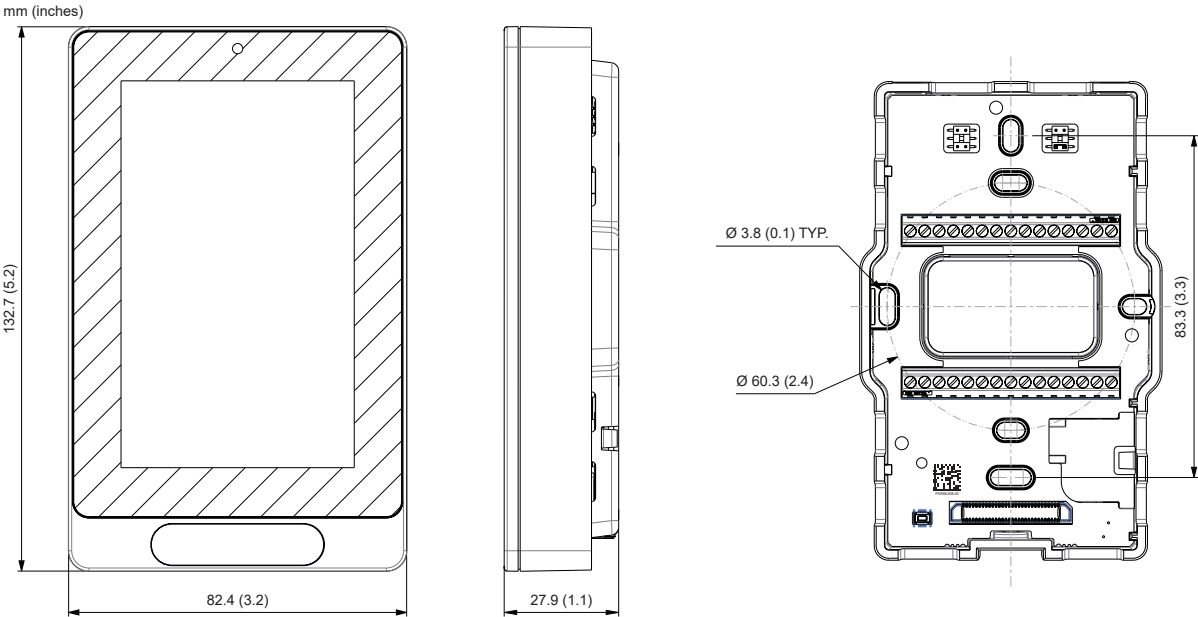
## Regulatory Compliance and Safety Information

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Viconics Technologies for any consequences arising out of the use of this material.

Carefully read these instructions and all information relevant to this product before trying to install it.

The technical literature and declarations of conformity can be accessed on the Viconics Technologies website, [www.viconics.com](http://www.viconics.com). Contact your local Viconics Technologies sales office for a hard copy of the documentation or for additional information.

## Dimensions



## Installation Restrictions

### Loss of Control

NOTICE
<p><b>EQUIPMENT DAMAGE</b></p> <ul style="list-style-type: none"><li>• The designer of any control scheme must consider the potential failure modes of control paths and, for certain critical control functions, provide a means to achieve a safe state during and after a path failure. Examples of critical control functions are emergency stop and over travel stop.</li><li>• Separate or redundant control paths must be provided for critical control functions.</li><li>• System control paths may include communication links. Consideration must be given to the implications of anticipated transmission delays or failures of the link.<sup>1</sup></li><li>• Each implementation of equipment utilizing communication links must be individually and thoroughly tested for proper operation before being placed into service.</li></ul> <p><b>Failure to follow these instructions can result in equipment damage.</b></p>

<sup>1</sup> For additional information about anticipated transmission delays or failures of the link, refer to NEMA ICS 1.1 (latest edition), *Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control* or its equivalent.

### Electrostatic Discharge

NOTICE
<p><b>EQUIPMENT DAMAGE</b></p> <p>Circuit boards and expansion modules can be damaged by static electricity. Observe the electrostatic precautions below when handling controller circuit boards or testing components.</p> <p>Observe the following precautions for handling static-sensitive components:</p> <ul style="list-style-type: none"><li>• Keep static-producing materials such as plastic, upholstery, and carpeting out of the immediate work area.</li><li>• Store static-sensitive components in protective packaging when they are not installed.</li><li>• When handling a static-sensitive component, wear a conductive wrist strap connected to the component or ground through a minimum of 1 megohm resistance.</li><li>• Avoid touching exposed conductors and components.</li></ul> <p><b>Failure to follow these instructions can result in equipment damage.</b></p>

Installation

NOTICE

EQUIPMENT DAMAGE

- The system must be installed correctly by a qualified technician.
- If replacing an existing Room Controller, label wires before removal of the Controller.
- The recommended wire size is:
  - 18-24 AWG: Single wire per terminal.
  - 22-24 AWG: Dual wire per terminal (e.g., Universal Input (UI) Commons). If you choose to use 18 AWG, the Common wires for inputs must be joined together using a 2-to-1 connector before being connected to the Room Controller terminal. Refer to “Finding Connectors on the Device” on page 2 for an example.
- When connecting RS-485 terminals with 18 AWG wires, a 2-to-1 connector must be used. Refer to “Finding Connectors on the Device” on page 2 for an example.
- Electronic controls are static sensitive devices. Discharge yourself correctly before manipulating and installing Room Controller.
- A short circuit or wrong wiring may permanently damage the Room Controller or equipment.
- All Room Controllers are designed for use as operating controls only and are not safety devices. Tampering with the devices or unintended application of the devices will result in a void of warranty.

Failure to follow these instructions can result in equipment damage.

For BACnet-isolated devices like the Viconics Room Controller, it is strongly recommended to use a 1.5-pair BACnet wire. Refer to the Viconics Room Controller Operating Guide for more information on configuration.

Location

NOTICE

EQUIPMENT DAMAGE

- Do not install on an exterior wall.
- Do not install behind a door.
- Do not install in areas with a direct heat source.
- Do not install near any air discharge grill.
- Do not install in areas exposed to direct sunlight.
- Ensure the Room Controller has sufficient natural air circulation.
- Ensure the wall surface is flat and clean.
- Ensure external thermal and CO<sub>2</sub> sensor wirings are away from noisy electrical sources.
- Install 5 feet (1.5 meters) above the floor.

Failure to follow these instructions can result in equipment damage.

Cleaning the Room Controller

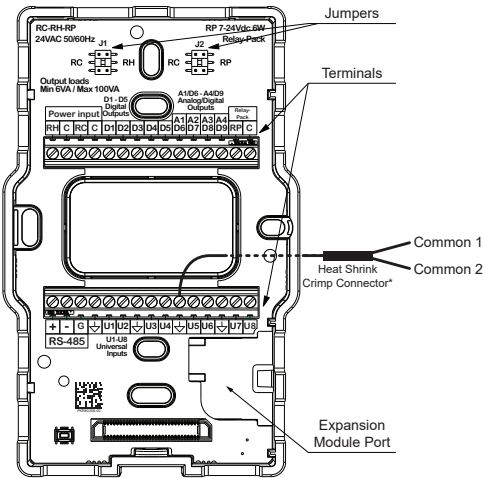
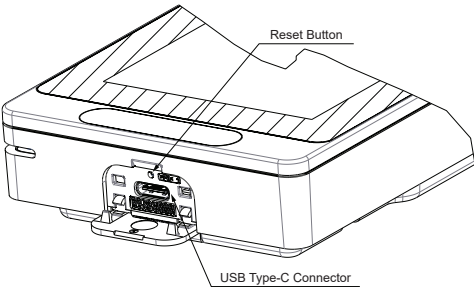
NOTICE

EQUIPMENT DAMAGE

- Use a soft, pre-moistened lint-free cloth for cleaning.
- Avoid getting moisture in openings.
- Do not spray anything directly on the Room Controller or use compressed air.
- Do not use caustic/corrosive products, ammonia, solvents or any cleaning product containing alcohol or grit.
- Incorrect readings may be caused by an air flow blocked by dirt or an air flow obstructed/modified by a product installed immediately below the Room Controller.
- Never use tools directly on the touchscreen.
- Never use paint on the Room Controller.
- Do not drop or crush the Room Controller, or allow it to come into contact with liquids.
- Do not use a damaged device (such as one with a cracked screen).

Failure to follow these instructions will result in damage to the unit and void the manufacturer’s warranty.

Finding Connectors on the Device



\*Or any 2-to-1 connector that fits the wire size and is not too large for the installation.

Open the door at the bottom of the Viconics Room Controller to gain access to the:

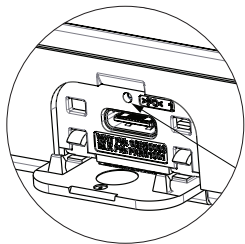
- Reset button
- USB Type-C connector (used for firmware updates)

Located on the base:

- 1x Expansion Module Port
- 2x Jumpers
- 30x Wiring Terminals (see “Terminal Identification & Function” on page 4)

More information on these components is provided in the following sections.

## Reset Button

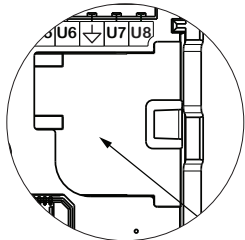


There are two (2) types of reset operations:

- **Normal reset:** Press the reset button to stop and restart the device.
- **Factory reset:**
  1. Remove the Room Controller cover from the base OR power it off.
  2. Press and hold the reset button, while snapping the cover back into place OR powering it back on.

Refer to “Mounting the Device” on page 3 for more information on installing and removing the cover.

## Expansion Module Port

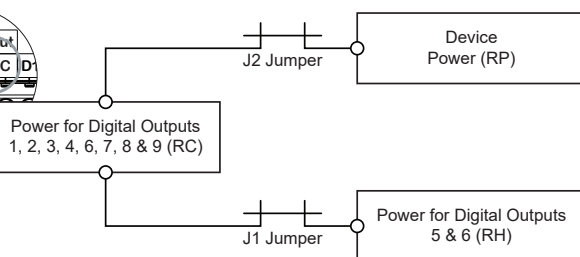
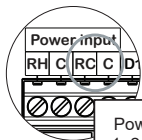
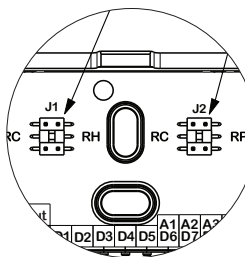


The Expansion Module Port allows you to insert one (1) module for CO<sub>2</sub> detection.\*

\* This feature will be developed and available in a future release.

## Jumpers

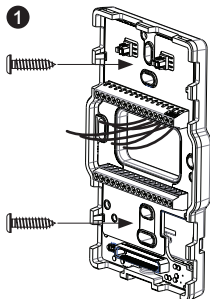
There are 2 jumpers available on the Viconics Room Controller:



If a Relay Pack (or another isolated power supply) is used to power the Room Controller:

1. It must be connected to the RP and C terminals (indicated in blue).
2. The J2 jumper must be removed.

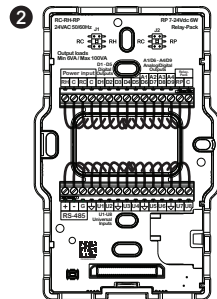
## Mounting the Device



Use 2 screws to mount the base on the wall (maximum size #6, head diameter 6.9 mm (0.27 in)).

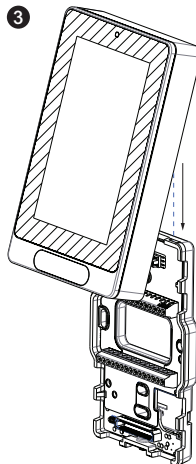
Pull the wires through the opening, long enough to shape and place each wire into its terminal, avoiding any overlap when possible.

Cut any wires that are too long, if necessary.

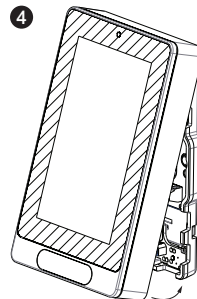


Strip each wire 6 mm (1/4 in) from the end, and use a flat screwdriver to secure wires to their terminals.

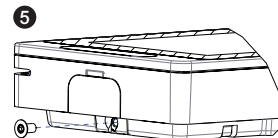
Refer to the “Terminal Identification & Function” on page 4 for more information.



Gently push excess wiring back into the opening. Align the cover with the top of the base and slide it down.



Once aligned with the top of the base, snap the cover into place from the bottom.



Install the security screw on the bottom of the unit using a square screwdriver.

### To remove the cover:

Remove the security screw using a square screwdriver, and open the unit by pulling on the bottom side of the cover.

Terminal Identification & Function

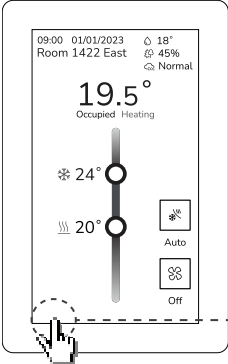
TRC3500: Fan Coil Unit (FCU) with an Electronically Commutated Motor (ECM) Fan						
Terminal Names	On/Off Valve Type		Floating Valve Type		Analog Valve Type	
	2 Pipes	4 Pipes	2 Pipes	4 Pipes	2 Pipes	4 Pipes
RH	Power for digital outputs 5 & 6					
C	Power Common					
RC	Power for digital outputs 1, 2, 3, 4, 6, 7, 8 & 9					
C	Power Common					
D1	Not used	Normally closed heat valve	Not used	Closed heat valve	Not used	
D2	Not used					
D3	Not used					
D4	ECM fan start					
D5	Auxiliary heat					
A1/D6	Normally closed heat/cool valve	Normally closed cool valve	Closed heat/cool valve	Closed cool valve	Not used	
A2/D7	Analog ECM fan					
A3/D8	Normally open heat/cool valve	Normally open cool valve	Open heat/cool valve	Open cool valve	Analog heat/cool valve	Analog cool valve
A4/D9	Not used	Normally open heat valve	Not used	Open heat valve	Not used	Analog heat valve
RP	Device Power					
C	Power Common					
+	BACnet/Modbus RS-485 (+)					
-	BACnet/Modbus RS-485 (-)					
G	BACnet/Modbus RS-485 Reference					
⚡	Common					
U1	Configurable Input: None (default), Remote Night Setback (NSB), Motion Normally Open (NO), Motion Normally Closed (NC), Window					
U2	Configurable Input: None (default), Door Dry, Override, Filter or Service					
⚡	Common					
U3	Configurable Input: None (default) or CO <sub>2</sub> , Change Over Dry Contact/Normally Heat (COC/NH), Change Over Dry Contact/Normally Cool (COC/NC), Change Over Sensor (COS)					
U4	Remote room temperature sensor					
⚡	Common					
U5	Supply air temperature sensor					
U6	Outside air temperature sensor					
⚡	Common					
U7	Not used					
U8	Not used					

**TRC3500: Fan Coil Unit (FCU) with 3-Speed Fan**

Terminal Names	On/Off Valve Type		Floating Valve Type		Analog Valve Type	
	2 Pipes	4 Pipes	2 Pipes	4 Pipes	2 Pipes	4 Pipes
RH	Power for digital outputs 5 & 6					
C	Power Common					
RC	Power for digital outputs 1, 2, 3, 4, 6, 7, 8 & 9					
C	Power Common					
D1	Not used					
D2	Fan low					
D3	Fan medium					
D4	Fan high					
D5	Auxiliary heat					
A1/D6	Normally closed heat/cool valve	Normally closed cool valve	Closed heat/cool valve	Closed cool valve	Not used	
A2/D7	Not used	Normally closed heat valve	Not used	Closed heat valve	Not used	
A3/D8	Normally open heat/cool valve	Normally open cool valve	Open heat/cool valve	Open cool valve	Analog heat/cool valve	Analog cool valve
A4/D9	Not used	Normally open heat valve	Not used	Open heat valve	Not used	Analog heat valve
RP	Device Power					
C	Power Common					
+	BACnet/Modbus RS-485 (+)					
-	BACnet/Modbus RS-485 (-)					
G	BACnet/Modbus RS-485 Reference					
⚡	Common					
U1	Configurable Input: None (default), Remote Night Setback (NSB), Motion Normally Open (NO), Motion Normally Closed (NC), Window					
U2	Configurable Input: None (default), Door Dry, Override, Filter or Service					
⚡	Common					
U3	Configurable Input: None (default) or CO <sub>2</sub> , Change Over Dry Contact/Normally Heat (COC/NH), Change Over Dry Contact/Normally Cool (COC/NC), Change Over Sensor (COS)					
U4	Remote room temperature sensor					
⚡	Common					
U5	Supply air temperature sensor					
U6	Outside air temperature sensor					
⚡	Common					
U7	Not used					
U8	Not used					

TRC6500				
Terminal Names	Roof Top Unit (RTU)	Roof Top Unit (RTU)	Heat Pump (HP)	Heat Pump (HP)
	2 Cool / 0 Analog Heat	2 Heat / 2 Cool	2 Compressors, Analog Heat	2 Compressors, Aux Heat
RH	Power for digital outputs 5 & 6			
C	Power Common			
RC	Power for digital outputs 1, 2, 3, 4, 6, 7, 8 & 9			
C	Power Common			
D1	Occupancy Output			
D2	Cool Stage 2 (Y2)			
D3	Cool Stage 1 (Y1)			
D4	Fan (G)			
D5	Analog heat authorization	Heat Stage 1 (W1)	Analog heat authorization	Auxiliary heat
A1/D6	Not used	Heat Stage 2 (W2)	Heat pump reversing valve (O/B)	
A2/D7	Economizer			
A3/D8	Analog heat	Not used	Analog heat	Not used
A4/D9	Dehumidification			
RP	Device Power			
C	Power Common			
+	BACnet/Modbus RS-485 (+)			
-	BACnet/Modbus RS-485 (-)			
G	BACnet/Modbus RS-485 Reference			
⚡	Common			
U1	Configurable Input: None (default), Remote Night Setback (NSB), Motion Normally Open (NO), Motion Normally Closed (NC), Window or Fan lock			
U2	Configurable Input: None (default), Door Dry, Override, Filter or Service			
⚡	Common			
U3	Configurable Input: None (default) or CO <sub>2</sub>			
U4	Remote room temperature sensor			
⚡	Common			
U5	Supply air temperature sensor			
U6	Outside air temperature sensor			
⚡	Common			
U7	Airflow sensor			
U8	Not used			

Commissioning the Device



- Tap and hold this area for 3 seconds to enter the set-up mode. When the list of users appears on the screen, tap to select the desired user, then enter the corresponding PIN code. This step is to prevent unauthorized access to the configuration menu parameters.
- For more information on using and configuring the functions of the Human Machine Interface (HMI), refer to the Operating Guide.

**NOTICE**

**PIN CODE**  
If an incorrect PIN code is entered repeatedly, a user profile will be blocked for a configurable period of time.  
**Failure to follow these instructions may lead to an inability to configure the Room Controller.**

Occupancy Sensing

The occupancy sensor must be considered when selecting a location for the Room Controller. It is recommended to install the Room Controller close to a door, but not blocked by it, in an area with high occupant movement.

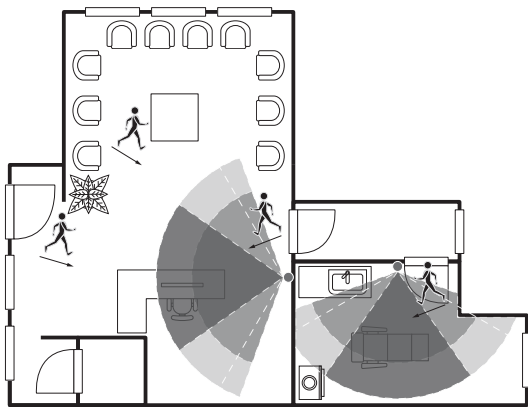
Ideally, the Room Controller should be installed 5 feet (1.5 meters) above the floor surface to help ensure that maximum detection range is achieved. Room Controller placement also helps to ensure the occupant crosses the lens beam in a perpendicular path within the prescribed detection zone.

The Room Controller includes one Passive Infrared (PIR) sensor to detect movement with configurable detection ranges:

Sensitivity	Range
High	30 feet (9 meters)
Medium	20 feet (6 meters)
Low	10 feet (3 meters)

Example of Recommended Deployment

The diagram below shows Room Controllers installed in ideal locations for two rooms.

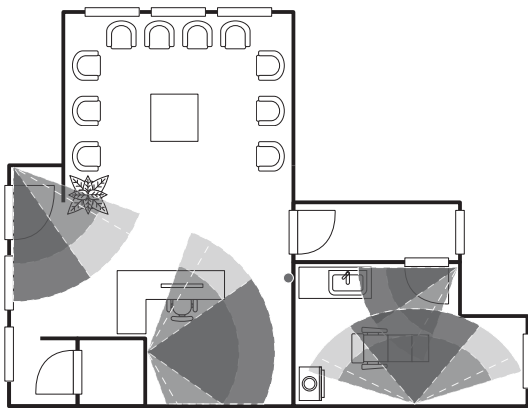


The examination room shows one Room Controller installed adjacent to the door. In this area of the room, occupant traffic is high and ensures the occupant will almost always cross the PIR detection path laterally and within the detection range.

The waiting room shows one Room Controller installed beside a door in the middle of the room. As shown in the diagram, occupant traffic is high in several areas of the room including the entrance, waiting room, access to the door, and activity around the reception desk. In each of these cases, occupant movement almost always moves laterally to the PIR, which ensures detection by the PIR, as well as respecting the PIR detection range.

Example of Non-Recommended Deployment

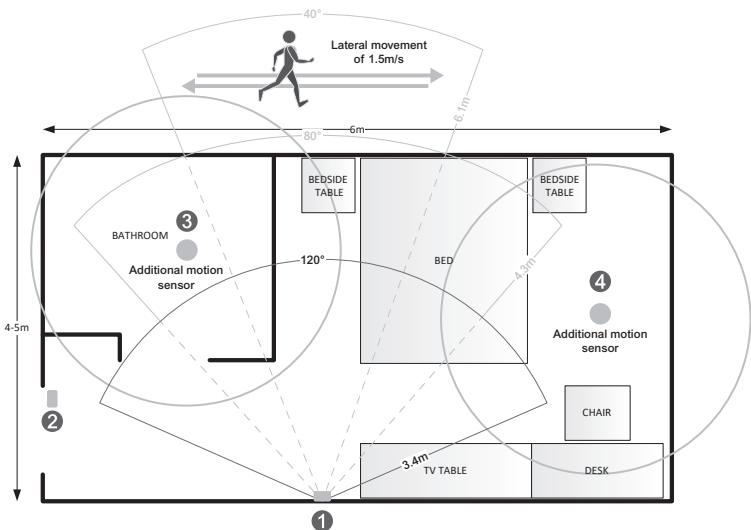
The diagram below shows four Room Controllers (two for each room) installed in non-ideal locations for the two rooms.



The examination room shows one Room Controller installed in a low-traffic area near the door, and a second Room Controller installed on the wall directly opposite the door. For the Room Controller installed in the corner wall, the PIR could be blocked by the opened door, while occupant traffic could also be minimal in this area of the room. For the second Room Controller installed opposite the door, the PIR detection could fall outside the specified detection zone, while at the same time, most occupant movement would not be lateral to the PIR, thereby not respecting optimal crossing patterns for PIR detection.

The waiting room shows one Room Controller installed in the corner of the room, and a second Room Controller installed beside the reception area. For the Room Controller installed in the corner, the opening/closing of the door creates a high probability that the PIR would get blocked, and therefore, occupancy going undetected. For the Room Controller installed beside the reception area, occupant traffic could fall outside the detection zone, and the receptionist would often be below the 5-foot recommended installation height for the Room Controller.

Room Controller PIR Sensor Details



The internal Room Controller PIR sensor only detects lateral movement. It cannot detect movement when a person is moving toward it. It will not detect someone sitting on a chair and/or lying on the bed.

Part Numbers

Product	Color	Part Number
Viconics Room Controller Low-Voltage Fan Coil Unit & Zone Control BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi	White	TRC3500B11W-VC
Viconics Room Controller Low-Voltage Fan Coil Unit & Zone Control BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi	Black	TRC3500B00W-VC
Viconics Room Controller Roof Top Unit, Heat Pump, & Indoor Air Quality BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi	White	TRC6500B11W-VC
Viconics Room Controller Roof Top Unit, Heat Pump, & Indoor Air Quality BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi	Black	TRC6500B00W-VC



Viconics Room Controller Low-Voltage Fan Coil Unit & Zone Control BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi NAM	White	TRC3500B11WA-VC
Viconics Room Controller Low-Voltage Fan Coil Unit & Zone Control BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi NAM	Black	TRC3500B00WA-VC
Viconics Room Controller Roof Top Unit, Heat Pump, & Indoor Air Quality BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi NAM	White	TRC6500B11WA-VC
Viconics Room Controller Roof Top Unit, Heat Pump, & Indoor Air Quality BACnet/MSTP, Relative Humidity Sensor, Passive Infrared Sensor, Zigbee Pro & Wifi NAM	Black	TRC6500B00WA-VC

General Specifications

<p>Electrical</p> <p><b>Input</b></p> <p>24 Vac ±15% recommended, Absolute Max 29.5 Vac, 50/60 Hz or 24 Vdc ±15%</p> <p><b>Peak device consumption</b></p> <p>Up to 6 VA with CO<sub>2</sub> sensor Plus Output Load (max total 94 VA)</p> <p><b>Transformer maximum rating</b></p> <p>100 VA, 4.17 A, Class 2</p> <p><b>Output ratings</b></p> <p>5 DO (Electronic Relays):</p> <p>24 Vac or 24 Vdc ±15%, 50/60 Hz, 1.0 Amp. 4 UO (Electronic Relays or Analog Outputs – Configurable):</p> <p>0 - 10 Vdc, 5 mA max</p> <p><b>Analog outputs</b></p> <p>4 (A1 - A4)</p> <p><b>Universal I/Os</b></p> <p>4 (U1 - U4)</p> <p><b>Universal inputs</b></p> <p>4 (U5 - U8)</p> <p><b>Digital outputs</b></p> <p>9 (D1 - D9)</p> <p><b>Supported signals</b></p> <p>0 - 10 Vdc</p> <p><b>Real-time clock</b></p> <p>7-day internal battery backup</p> <p><b>UL file number</b></p> <p>E527425</p> <p><b>WiFi Interface</b></p> <p>2.4GHz/5GHz b/g/n/ac module</p> <p>Antenna type Omnidirectional, internal.</p> <p>Contains FCC ID: VPYLB2AE</p> <p>IC: 772C-LB2AE</p> <p>Environment</p> <p><b>Environmental conditions</b></p> <p>Indoor use only</p> <p><b>Ambient temperature, operating</b></p> <p>0 to 50 °C (32 to 122 °F)</p> <p><b>Humidity, operating</b></p> <p>0 to 95 % RH non-condensing</p> <p><b>Ambient temperature, storage</b></p> <p>-30 to 50 °C (-22 to 122 °F)</p> <p><b>Humidity, storage</b></p> <p>0 to 95 % RH non-condensing</p>	<p><b>Dehumidification setpoint range</b></p> <p>30 to 95% R.H.</p> <p><b>Occ, unocc and standby cooling setpoint range</b></p> <p>12 to 37.5 °C (54 to 100 °F)</p> <p><b>Occ, unocc and standby heating setpoint range</b></p> <p>4.5 to 32 °C (40 to 90 °F)</p> <p><b>Room and outdoor air temp. display range</b></p> <p>-40 to 50 °C (-40 to 122 °F)</p> <p><b>Proportional band for room temp. control</b></p> <p>Cooling and Heating: Default: 1.8°C (3.2°F)</p> <p>Sensors</p> <p><b>Temperature sensor resolution</b></p> <p>± 0.1 °C (± 0.2 °F)</p> <p><b>Temperature control accuracy</b></p> <p>±0.5 °C (± 0.9 °F) @ 21 °C (70 °F) typical</p> <p><b>Humidity sensor accuracy</b></p> <p>Reading ranges from 10 - 90 % R.H. non-condensing</p> <p>10 to 20% precision: 10%</p> <p>20 to 70% precision: 5%</p> <p>70 to 90% precision: 10%</p> <p><b>Humidity sensor stability</b></p> <p>Less than 0.25 % yearly (typical drift)</p> <p>Mechanical</p> <p><b>Dimensions</b></p> <p>132.8 L x 82.5 W x 27.9 H mm (5.2 L x 3.2 W x 1.1 H in)</p> <p><b>Weight</b></p> <p>241.4 g (0.5 lb)</p> <p>Material</p> <p><b>Wire gauge</b></p> <p>Power supply: 18AWG</p> <p>Communications: 22-24 AWG</p> <p><b>Enclosure</b></p> <p>Polycarbonate</p> <p><b>Display</b></p> <p>Glass</p>	<p><b>Ingress protection rating</b></p> <p>IP 20</p> <p><b>Plastic flame rating</b></p> <p>UL94 V-0</p> <p><b>Pollution degree</b></p> <p>2</p> <p><b>Color</b></p> <p>White or black</p> <p><b>Surface finish</b></p> <p>Matte</p> <p>Display</p> <p><b>Resolution</b></p> <p>800 x 480 pixels (WVGA)</p> <p><b>Aspect ratio</b></p> <p>16:10</p> <p><b>Size</b></p> <p>109.2 mm (4.3 in)</p> <p><b>Type</b></p> <p>Capacitive 226 Pixels per Inch (PPI)</p> <p><b>Color</b></p> <p>16 million colors</p> <p><b>Languages</b></p> <p>Arabic, Chinese (Simplified), Czech, Danish, Dutch, English (Default), Finnish, French, German, Hebrew, Hungarian, Indonesian, Italian, Japanese, Norwegian, Polish, Portuguese, Russian, Slovak, Spanish, Swedish, Turkish</p> <p><b>Brightness control</b></p> <p>400 cd/m2, 16 levels</p> <p><b>LED lifetime<sup>a</sup></b></p> <p>50,000 hours</p> <p>a) The LED lifetime is defined as the time when the LED continues to operate at the ambient temperature of 25 °C +/-2 °C (77 °F +/- 3.6 °F) until the brightness is reduced to 25% of its original value</p> <p>Installation</p> <p><b>Placement</b></p> <p>Wall mounted in rooms and open spaces</p>
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FCC ID: 2BATG-SXWTRC; IC ID: 30486-SXWTRC

Addendum - California Proposition 65 Warning Statement for California Residents

**⚠ WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm, and Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

部件名称 (Part Name)	有害物质 (Hazardous Substances)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑料部件 (Plastic Parts)	○	○	○	○	○	○
电子件 (Electronics)	X	○	○	○	○	○

本表格依据 SJ/T11364 的规定编制。(This table is made according to SJ/T 11364.)

O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。  
(Indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.)

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。  
(Indicates that the concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572.)



## Regulatory Notices

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation. Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This device complies with the Canadian ICES-003 Class B specifications. CAN ICES-003(B) / NMB-003 (B).

Cet équipement a été testé et déclaré conforme aux limites imposées aux appareils numériques de classe B, conformément à la partie 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre des fréquences radio et, s'il n'est pas installé et utilisé conformément aux instructions, peut causer des interférences nuisibles aux communications radio. Cependant, il n'y a aucune garantie que des interférences ne se produiront pas dans une installation particulière.

Si cet équipement provoque des interférences nuisibles à la réception de la radio ou de la télévision, ce qui peut être déterminé en éteignant et en allumant l'équipement, l'utilisateur est encouragé à essayer de corriger les interférences par une ou plusieurs des mesures suivantes :

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance entre l'appareil et le récepteur.
- Connecter l'équipement à une prise de courant sur un circuit différent de celui auquel le récepteur est connecté.
- Consulter le distributeur ou un technicien radio/TV qualifié pour obtenir de l'aide.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempt de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) L'appareil ne doit pas produire de brouillage;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil numérique de la classe B est conforme à la norme ICES-003/NMB-003 du Canada.