



# PIR Ready VT7600F Series RTU Controller with Modulating Heat For Commercial HVAC Applications

(Issue Date January 10<sup>th</sup>, 2012 – 028-6034 R0)

## PRODUCT OVERVIEW

Maintaining proper fresh air requirements for buildings located in colder climates has always been a challenge. In low outdoor air temperature conditions, supply air is often too cold to be used directly without conditioning when no heating demand is present, creating an uncomfortable environment for occupants, which is difficult to control. The new Viconics VT7600F Series Rooftop Terminal Equipment Controller with modulating heat from Viconics can now make your building more comfortable while still meeting the ventilation codes for minimum building fresh air requirements. The VT7600F is easy-to-install and includes modulating heat functionality, which allows for the addition of an extra supply air temperature control loop to better control and condition the supply air levels, providing a more comfortable occupant environment. This easy-to-install wall-mounted VT7600F Controller features an easy-tread digital display and built-in commissioning and configuration utility, temperature sensor, optional humidity sensor and optional passive infra red occupancy sensor (PIR) cover. Open protocol design provides compatibility to BACnet® MS/TP, Echelon Lontalk® and Wireless Zigbee® network systems. Our Network Ready “standalone” versions can be field retrofit with optional communication modules that enable the VT7600F to be integrated into virtually any building automation system as budgets allow or as the building requirements change. No previous building automation training is required for the easy installation and commissioning process, which can be completed in about fifteen minutes, reducing overall installation time, providing increased savings and quicker return on investment.



The additional following documentation is available on [www.viconics.com](http://www.viconics.com)

- PIR application information and examples are available on document: *APP-VT76-PIR-Guide-Exx*
- PIR cover installation information is available on document: *PIR Cover Installation-Exx*
- Information on the BACnet models (VT76xxX5x00B), is available on document *ITG-VT76xx-PIR-BAC-Exx*
- Information on the Wireless models (VT76xx0X5x00W), is available on documents: *ITG-VWG-50-BAC-Exx* and *LIT-VWG-50-SETUP-Exx*

## MODELS AVAILABLE

APPLICATION	1 HEAT, 2 COOL
Model (with scheduling)	VT7652F5X00(X)
Model (without scheduling)	VT7600F5X00(X)

### Ordering Information Notes:

- (X) model number represents available communication options: **X=none** for Network Ready, **X=B** for BACnet MS-TP, and **X=W** for Wireless
- Controllers can be ordered with a factory installed PIR cover. Please use (5500) extension instead of the (5000) only extension. Ex. VT7606B5500B.
- Controllers ordered without a PIR cover can be retrofitted with a separate PIR accessory cover afterwards when required

## FEATURES & BENEFITS

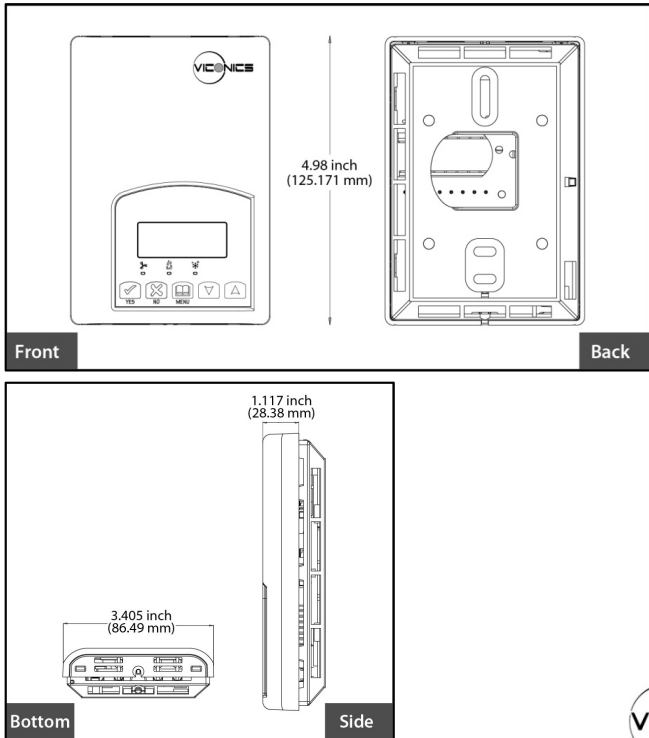
FEATURES	BENEFITS
Function with any open protocols	Allows for easy integration into any network system such as BACnet®, Lontalk®, ZigBee®
Network Ready units can be retrofit in the field with optional communication modules	Easy network setup and integration at any time
One simple wall-mounted device to install, wire and commission	Lower total installed cost
Application-specific controllers	Can be configured to meet most used applications
No special software required for configuration	Lower costs associated with configuration
Fully embedded local configuration utility	Provides quicker and less expensive setup
Factory-installed passive infra red (PIR) occupancy sensor	Provides additional automatic energy savings

# SPECIFICATIONS

<b>Controller power requirements:</b> .....	19-30 VAC 50 or 60 Hz; 2 VA ( RC & C ) Class 2 RC to RH jumper 2.0 Amps 48 VA maximum
<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>Sensor:</b> .....	Local 10 K NTC thermistor
<b>Resolution:</b> .....	± 0.1 °C ( ± 0.2 °F )
<b>Control accuracy:</b> .....	± 0.5 °C ( ± 0.9 °F ) @ 21 °C ( 70 °F ) typical calibrated
<b>Occupied and unoccupied setpoint range cooling:</b> .....	12.0 to 37.5 °C ( 54 to 100 °F )
<b>Occupied and unoccupied setpoint range heating:</b> .....	4.5 °C to 32 °C ( 40 °F to 90 °F )
<b>Room and outdoor air temperature range:</b> .....	-40 °C to 50 °C ( -40 °F to 122 °F )
<b>Proportional band for room temperature control:</b> .....	Factory set, heating and cooling at: 1.1°C ( 2.0°F )
<b>Digital inputs:</b> .....	Relay dry contact only across C terminal to DI1 or DI2
<b>Contact output rating:</b> .....	Each relay output: ( Y1, Y2, G, W1, W2 & AU ) 30 VAC, 1 Amp. maximum 30 VAC, 3 Amp. in-rush
<b>Analog output rating:</b> .....	0 to 10 VDC into 2KΩ resistance min.
<b>Analog output accuracy:</b> .....	± 3% typical
<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 )
<b>Agency Approvals all models:</b> .....	<b>UL:</b> UL 873 (US) and CSA C22.2 No. 24 (Canada), File E27734 with CCN XAPX (US) and XAPX7 (Canada) <b>Industry Canada:</b> ICES-003 (Canada) <b>FCC:</b> Compliant to CFR 47, Part 15, Subpart B, Class A (US) <b>CE:</b> EMC Directive 89/336/EEC (Europe Union) <b>C-Tick:</b> AS/NZS CISPR 22 Compliant (Australia / New Zealand) Supplier Code Number N10696 <b>FCC:</b> Compliant to: Part 15, Subpart C
<b>Agency Approvals all models:</b> .....	
<b>Agency Approvals Wireless models:</b> .....	

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 UNDESIRE OPERATION.

## DIMENSIONS



**!**

- When replacing an existing Terminal Equipment Controller, label the wires before removal of the Terminal Equipment Controller.
- Electronic controls are static sensitive devices. Discharge yourself properly before manipulating and installing the Terminal Equipment Controller.
- A short circuit or improper wiring may permanently damage the Terminal Equipment Controller or the equipment.
- All VT7000 series Terminal Equipment Controllers are designed for use as operating controls only and are not safety devices. These instruments have undergone rigorous tests and verification prior to shipping to ensure proper and reliable operation in the field. Whenever a control failure could lead to personal injury and or loss of property, it becomes the responsibility of the user or installer or electrical system designer to incorporate safety devices (such as relays, flow switch, thermal protections, etc...) and or an alarm system to protect the entire system against such catastrophic failures. Tampering with the devices or unintended application of the devices will result in a void of warranty.

