

# VTR835X0A5X SERIES/ VC3XXxE5000

Network Ready, BACnet MS/TP,  
and Wireless Models Available



VTR835x0A5x



VC3xxxE5000

This two component retrofit option consists of the VTR8300 terminal equipment controller and the VC3000 relay pack. Together, they provide an easy solution for retrofitting fan coil unit thermostats without requiring upgrades to other components such as relays, transformers, controllers, sensors, and network wiring. Existing line voltage wiring between the fan coil unit and temperature controller can be reused, further minimizing overall labor and installation costs.

The VC3000 relay pack features an onboard universal voltage power supply and line-voltage relays that directly drive fractional horsepower fan motors and valves. The VTR8350 controller features a fully digital multi-language touch screen display that can be user customized. The controller's built-in commissioning and configuration utility, its temperature sensor, and the optional humidity and occupancy sensor, provide maximum flexibility. The VTR8350 controller is available in Network Ready, BACnet® MS/TP or wireless Zigbee networked models.

## SPECIFICATIONS

Thermostat Power Requirements	7 Vdc, 2.4 W min. (from VC3000)
Operating Conditions	0 to 50 °C (32 to 122 °F); 0 to 95% RH non-condensing
Storage Conditions	-30 to 50 °C (-22 to 122 °F); 0 to 95% RH non-condensing
Temperature Sensor	Local 10k NTC type 2 thermistor
Temp. Sensor Resolution	± 0.1 °C (± 0.2 °F)
Temp. Control Accuracy	±0.5 °C (±0.9 °F) @ 21 °C (70 °F) typical calibrated
Humidity Sensor and Calibration	Single point calibrated bulk polymer sensor
Humidity Sensor Precision	Reading range from 10 to 90% RH non-condensing 10 to 20% precision is 10%; 20 to 80% precision is 5%; 80 to 90% precision is 10%

## Commercial and hospitality

Suitable for both commercial and hospitality markets and systems (VTR8300 Series)

## Extremely compact design

(VC3000 Series)

## Digital touch screen

Customizable color digital touch screen interface with multi-language support (VTR8300 Series)

## Highly configurable

LUA custom programming available

## 7-day occupancy scheduling

2 to 4 events (VTR8300 Series)

## 90 to 277 Vac

Line powered from 90 to 277 Vac, 50 to 60 Hz (VC3000 Series)

Humidity Sensor Stability	<1.0% annual drift (typical)
Dehumidification Setpoint Range	30 to 95% RH
Occupied and Unoccupied Setpoint Range Cooling	12 to 38 °C (54 to 100 °F)
Occupied and Unoccupied Setpoint Range Heating	5 to 32 °C (40 to 90 °F)
Room and Outdoor Air Temperature Display	-40 to 50 °C (-40 to 122 °F)
Proportional Band for Room Temperature Range Control	Cooling & Heating: 1.8 °C (3.2 °F)
Binary Inputs	Dry contact across terminal BI1, BI2 & UI3 to Scom
Economizer Analog Output Rating	0 to 10 Vdc into 2k Ω resistance min.
Economizer Analog Output Accuracy	±3% typical
Wire Gauge	18 gauge maximum, 22 gauge recommended

### WARRANTY

Limited Warranty 18 months

### AGENCY APPROVALS



UL: 61010-1 (2nd edition); CSA: 61010-1 (3rd edition); IEC: 61010-1 (3rd edition), EN 60950-1: 2006A2: 2013, UL 873, CSA 22.2 No. 24-93; 61326-1:2005; FCC: Part 15, Subpart B

## WALL CONTROLLERS

Ordering Information

PART NUMBER	DESCRIPTION	COMM.
VTR8350A5000B	Fancoil Terminal Equipment Controller, PIR ready (PIR cover not included), onboard humidity sensor	BACnet
VTR8350A5500B	Fancoil Terminal Equipment Controller, PIR factory equipped, onboard humidity sensor	BACnet
VTR8350A5500BP	Fancoil Terminal Equipment Controller, PIR factory equipped, onboard humidity sensor	Wireless (Zigbee Pro)

## RELAY PACKS

Ordering Information

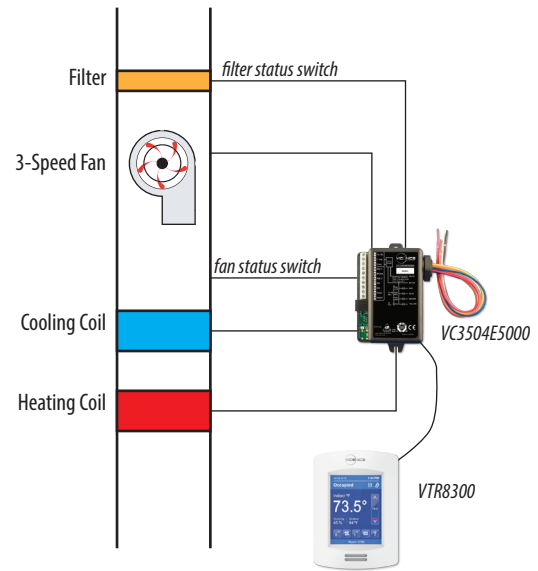
PART NUMBER	DESCRIPTION
VC3500E5000	Transformer relay pack, 5 relay fan outputs
VC3504E5000	Transformer relay pack, 5 relay fan outputs and 4 outputs
VC3404E5000	Transformer relay pack, 4 relay fan outputs, smart Vdc output, and 4 inputs
VC3300E5000	Transformer relay pack, 3 slave fan outputs

## APPLICATIONS

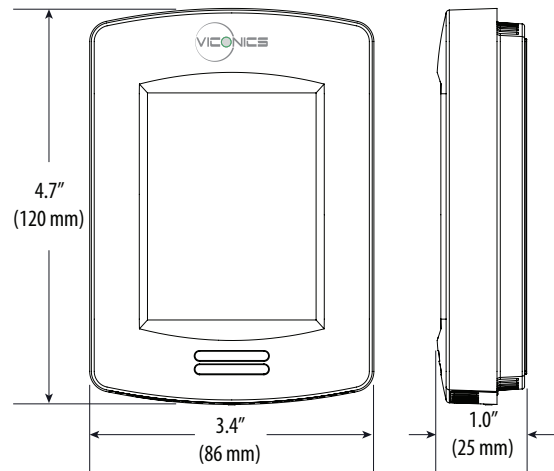
Wall Control and Relay Pack Applications (BACnet models shown, wireless similar)

APPLICATION	OUTPUTS/ INPUTS	CONTROLLER PART NUMBER	RELAY PACK PART NUMBER
2 or 4 pipe, up to 3 speed fan, humidity control	1H/1C with reheat	VTR8350A5000B	VC3500E5000
	1H/1C with 4 inputs and reheat	VTR8350A5000B	VC3504E5000
	1H/1C with 4 inputs, reheat, and occ. output	VTR8350A5000B	-
2 pipe, up to 3 speed fan	1H/1C with pulsed reheat	-	VC3500E5000
	1H/1C with 4 inputs and pulsed reheat	-	VC3504E5000
2 or 4 pipe, up to 3 speed fan, humidity control	1H/1C with reheat	VTR8350A5000B	VC3500E5000
	1H/1C with 4 inputs and reheat	VTR8350A5000B	VC3504E5000
	1H/1C with 4 inputs, reheat, and occ. output	VTR8350A5000B	-
2 pipe, up to 3 speed fan	1H/1C with pulsed reheat	-	VC3500E5000
	1H/1C with 4 inputs and pulsed reheat	-	VC3504E5000
Slave fan control only	3 fan outputs	-	VC3300E5000

## WIRING EXAMPLES



## DIMENSIONAL DRAWING



## SELECTABLE COLOR SCHEMES

