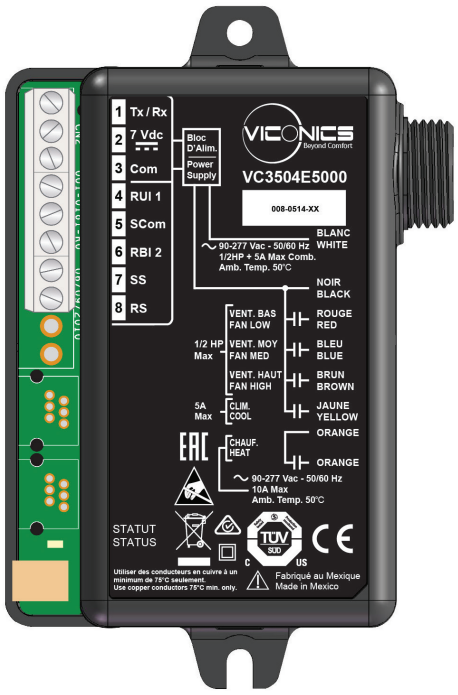
7000 and 8000 Room Controllers

VC3000 Relay Pack Specification Sheet

Line Voltage Switching Relay Pack for use with Line Voltage Fan Coil Unit (FCU) Room Controllers

The VC3000 is a relay pack for line-voltage fan coil units. The device is used with VTR73XX/VTR83X0 and SER73XX/SER83X0 Room Controllers as a two-component retrofit option.



NOTICE

IMPORTANT NOTICE RELATED TO PRODUCT PART NUMBERS

For the latest model and part numbers, please refer to ”8000 and 7000 Room Controllers Catalog”, which can be found on http://www.viconics.com and https://ecobuilding.schneider-electric.com.

This document contains information on active and retired products. The latter are no longer sold by Viconics Technologies, Schneider Electric, or its partners.

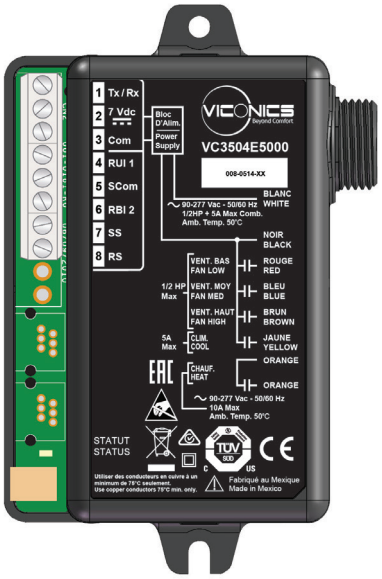
For additional information on 7000 Room Controllers and a list of replacement part numbers, please visit http://www.viconics.com. You can also refer to the “7000 Series Room Controllers and Historical Offer Product Withdrawal Process (PWP) Project Product Announcement” (PA-00723) for a list of replacement part numbers, which can also be found on https://ecobuilding.schneider-electric.com.

Failure to follow these instructions can result in confusion or order delays.

VICONICS Beyond Comfort

Version 5

VC3000 Relay Pack Features



AT A GLANCE

- Compact design
- Models for 2-pipe and 4-pipe FCU
- Up to 3 speed fan control
- Up to 4 FCU remote inputs
- Up to 5 FCU outputs including heat, cool, fan and modulating pulsed reheat

A compact and easy to install relay pack for line-voltage fan coil units to be used in combination with room controllers.

Introduction

The VC3000 relay pack is part of a two component retrofit option for line-voltage fan coil units. The relay pack must be combined with either VTR73XX/SER73XX or VTR83X0/SER83X0 room controllers.

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.

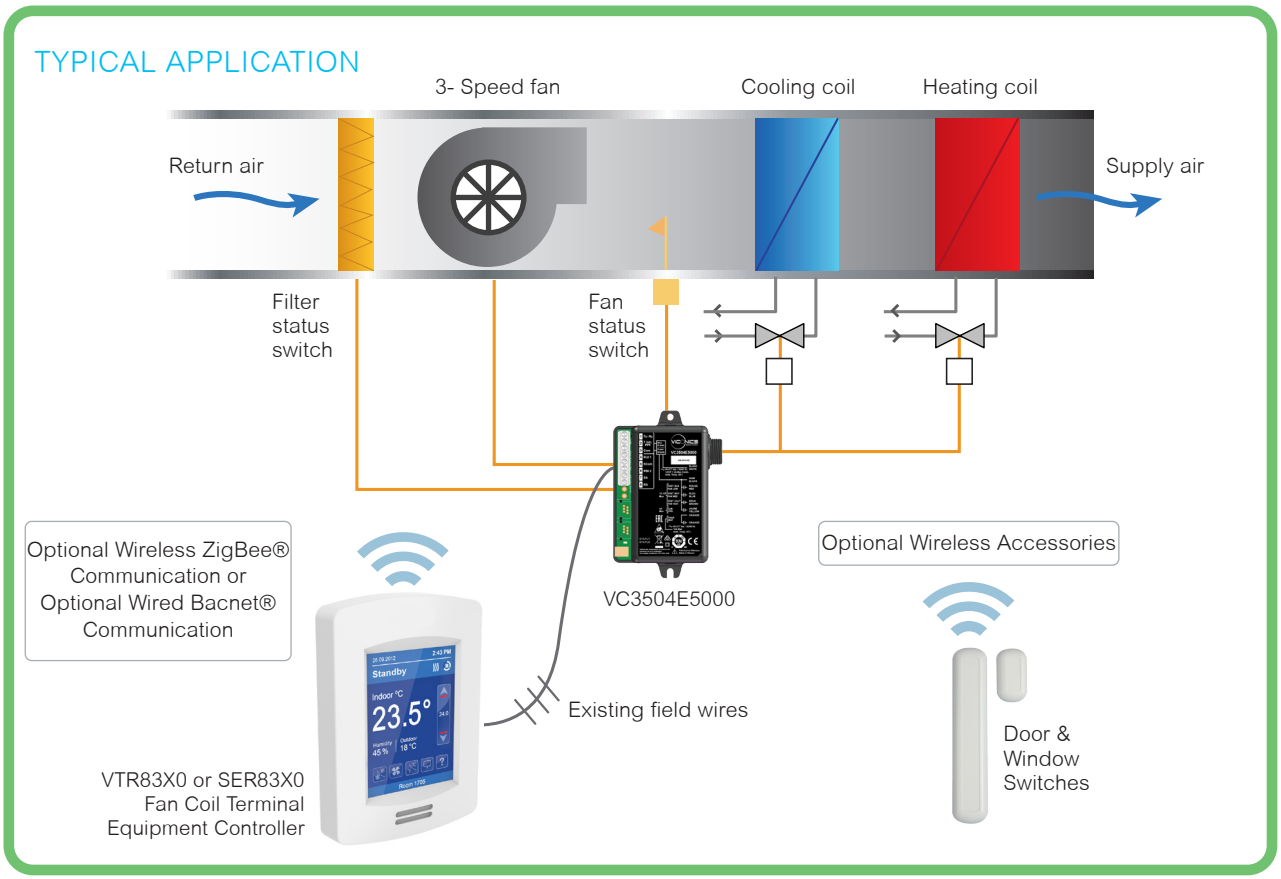
No previous building automation training is required for the installation and commissioning process.

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

VC3000 Product Highlights

- Extremely compact design
- Line powered from 90 to 277 VAC 50-60 Hz
- Wire-leads for line-voltage connections
- Direct line switching of fan speed and valves
- Directly switches single phase electric resistive heater up to 10 Amps
- Dedicated supply air sensor for monitoring (model dependent)
- Dedicated return air sensor for control (model dependent)
- Two extra monitoring binary inputs (model dependent)
- Extra SSR output for low cost electric heat modulation (model dependent) utility

VC3000 Relay Pack Applications and Specifications



Specifications

VC3000

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

Power Requirements
90 - 277 Vac universal, 50/60Hz

Operating Conditions
0 °C - 50 °C (32 °F - 122 °F)
0% - 95% R.H. non-condensing

Storage Conditions
-30 °C - 50 °C (-22 °F - 122 °F)
0% - 95% R.H. non-condensing

Temperature Sensor
Local 10 K NTC type 2 thermistor

Temperature Sensor Resolution
± 0.1 °C (± 0.2 °F)

Temperature Control Accuracy
± 0.5 ° C (± 0.9 °F) @ 21 °C (70 °F) typical calibrated

Humidity Sensor and Calibration
Single point calibrated bulk polymer type sensor

Humidity Sensor Precision
Reading range from 10-90 % R.H. non-condensing 10 to 20% precision: 10%
20% to 80% precision: 5%
80% to 90% precision: 10%

Humidity Sensor Stability
Less than 1.0 % yearly (typical drift)

Dehumidification Setpoint Range
30% - 95% R.H.

Occ, Stand-By and Unocc Cooling Setpoint Range
12.0 - 37.5 °C (54 - 100 °F)

Occ, Stand-By and Unocc Heating Setpoint Range
4.5 °C - 32 °C (40 °F - 90 °F)

Room and Outdoor Air Temperature Display Range
-40 °C - 50 °C (-40 °F - 122 °F)

Proportional Band for Room Temperature control
Cooling & Heating: Default: 1.8°C (3.2°F)

Binary Inputs
Dry contact across terminal BI1, BI2 and UI3 to Scom

Wire Gauge
14 gauge maximum, 22 gauge recommended

Fan Line Voltage Contact Electrical Ratings
Brown, Blue, Red wires 1/2 HP or 13A maximum.

Approximate Shipping Weight
0.34 kg (0.75 lb)

Main Heat Voltage Electrical Ratings
Orange wire, 10A maximum

Cool Line Voltage Electrical Ratings
Yellow wire, 5A maximum

Output Ratings
Fan: Brown, Blue, Red wires 1/2 HP or 13A at 277Vac maximum.

Safety Standards All Models
LVD Directive 2014/35/EU
EN IEC 60730-2-9
UL 873
CSA C22.2 No 24

EMC Standards All Models
EMC Directive 2014/30/EU
EN IEC 61000-6-3
EN IEC 61000-6-1
ETSI EN 301 489-1 (for wireless models)
FCC 15 Subpart B
ICES-003

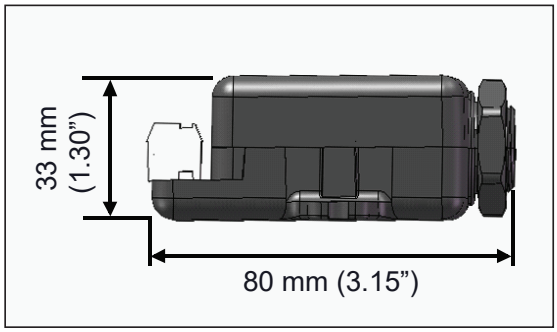
Radio Standards (Wireless Models)
RTTE Directive 2014/53/EU
EN 301 328
FCC 15 Subpart C
RSS 210

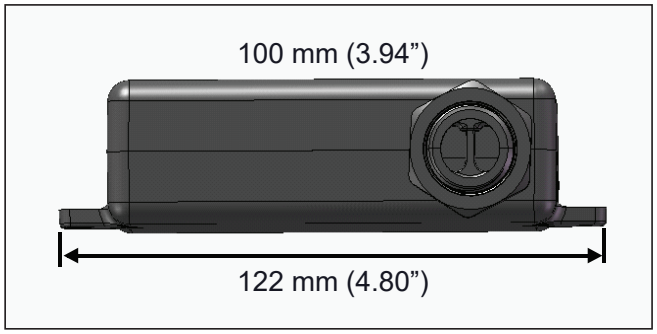
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

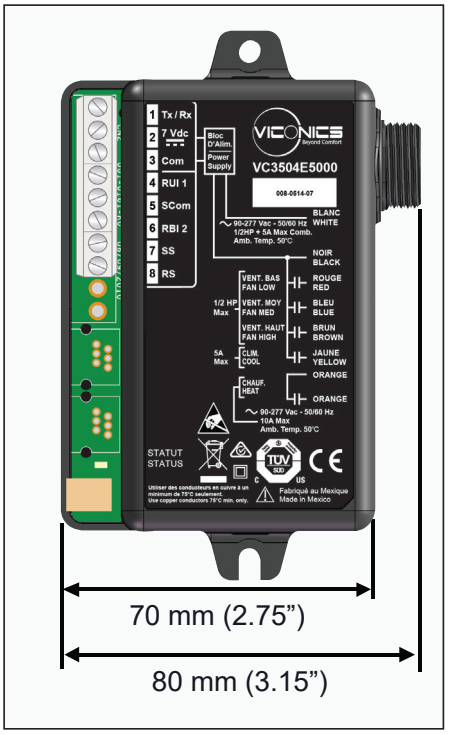
Please check with your local government for instruction on disposal of these products.

VC3000 Relay Pack

Dimensions







Ordering information

Part numbers	VC3500E5000	VC3504E5000	VC3514E5000 (with occupancy output)	VC3400E5000	VC3404E5000	VC3300E5000 (slave fan unit)
Applications	• 2 pipes • 2 pipes with reheat • 4 pipes	• 2 pipes • 2 pipes with reheat • 4 pipes	• 2 pipes • 2 pipes with reheat • 4 pipes	• 2 pipes • 2 pipes with modulating pulsed reheat	• 2 pipes • 2 pipes with modulating pulsed reheat	Slave fan control only
Fan control	Up to 3 speed	Up to 3 speed	Up to 3 speed	Up to 3 speed	Up to 3 speed	Up to 3 speed
Monitoring inputs	None	4 FCU remote inputs	4 FCU remote inputs	None	4 FCU remote inputs	None
Control types	On-Off line switched valve output control • 1 heat / cool output • 1 cool output • 3 fan outputs	On-Off line switched valve output control • 1 heat / cool output • 1 cool output • 3 fan outputs	On-Off line switched valve output control • 1 heat / cool output • 1 cool output • 3 fan outputs • Occupancy output (7VDC)	On-Off line switched valve output control • 1 heat / cool output • 1 Modulating pulsed Vdc output for SSR electric reheat control • 3 fan outputs	On-Off line switched valve output control • 1 heat / cool output • 1 Modulating pulsed Vdc output for SSR electric reheat control • 3 fan outputs	Slave fan control only • 3 fan outputs