Compatible with
SmartStruxure™ solution
SmartStruxure Lite solution

# Room Controller

## SE8300 Low Voltage Fan Coil Controller and Zone Controller

Application specific controller with customizable covers and screen colors. The SE8300 is a low voltage fan coil terminal equipment controller suitable for commercial and high end hospitality markets. It can also be used as a zone controller.


Schneider Electric

# SE8300 Room Controller Features


The perfect balance between simplicity and sophistication. Select from a wide variety of casings, fascias, and 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.

## Introduction

Smart energy management has never been easier than with the SE8300 series Fan Coil 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 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.

The Room Controllers are specifically designed to provide exceptional temperature control of multi-speed Fan Coil units. All models can provide advanced occupancy routines and automatic energy savings during occupied periods without sacrificing occupant comfort. When compared to traditional building automation controllers, the SE8300 series Fan Coil Room Controllers provide unmatched return on investment.

## AT A GLANCE

**Custom design**

- Touch screen interface
- 2 casing options
- 10 fascia options
- 5 selectable screen colors
- Supports the upload of a custom standby screen
- Supports the display of custom messages when integrated to a BACnet system
- English, French, Spanish, Chinese, Russian and other selectable languages
- Interchange between °C/°F

**Options and accessories**

- On-board optional occupancy sensor (optional)
- RH sensor with dehumidification control (optional)
- Can be used with wireless door and window contact sensor (optional)

## Touch Screen with Customizable User Experience

The touch screen of the SE8300 offers a customizable user experience with selection of languages, temperature scales, buttons, and screen colors. It also supports the upload of an image or logo that becomes the default standby screen of the device. Custom messages can also be displayed on-screen using BACnet® objects when the SE8300 is integrated to a BACnet system.

## Product Highlights

- Suitable for both commercial and hospitality markets and systems
- Customizable color digital touch screen interface with multi-language support
- Humidity sensor with on-board dehumidification strategy (model dependent)
- Optional occupancy sensor
- Advanced occupancy functions for commercial and lodging applications
- Optional wireless door and window switches (with optional ZigBee Pro® card) available for wireless communicating models only
- Configurable fan sequence of operation
- On board configuration interface utility

## Supported Networking Protocols

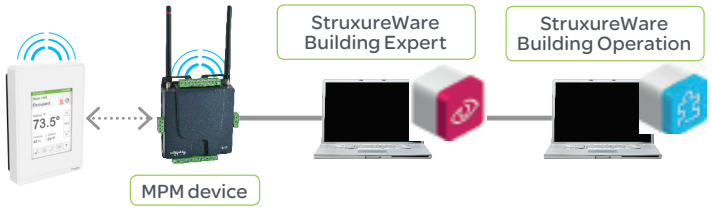
- BACnet MS/TP (B) (default model)
- ZigBee Pro wireless mesh network (P) (optional)

# SE8300 Room Controller Features

## Integration to Schneider Electric Systems

SE83000 can be integrated to SmartStruxure™ Lite, SmartStruxure, and other Schneider Electric systems.

- Wireless integration to MPM devices (P)
- Wireless integration to BACnet IP, oBIX and EWS via MPM devices (P)
- Direct wired integration to BACnet MS/TP (B)




## Architects and Designers Can Match their Decor

- Select from 2 casings and 10 fascias
- Five screen colors are also selectable through the interface

> 5 configurable screen colors

> Custom standby screen

> Custom messages

> 10 fascias

Silver finish | White | Glossy silver finish | Glossy white | Glossy black | Light wood grain finish | Dark brown wood grain finish | Black wood grain finish | **Brushed aluminum | Light grey slate finish

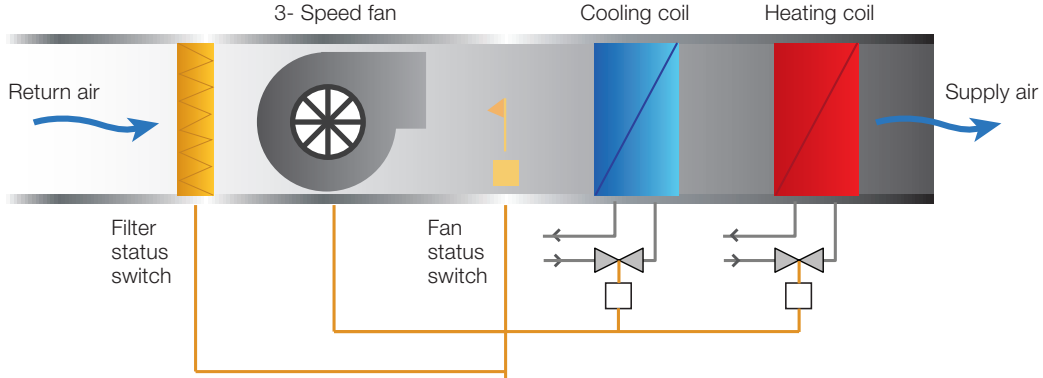
> 2 casings

White

Silver

**Wireless not available for this model

## TYPICAL LOW VOLTAGE FAN COIL APPLICATION




Standard wired BACnet MS/TP communication and optional ZigBee Pro communication module upgrade

SE8300 Low Voltage Fan Coil Terminal Equipment Controller

Existing field wires

Optional Wireless Accessories

Door and Window Switches

# SE8300 Room Controller Features

## SE8300 as a Zone Controller

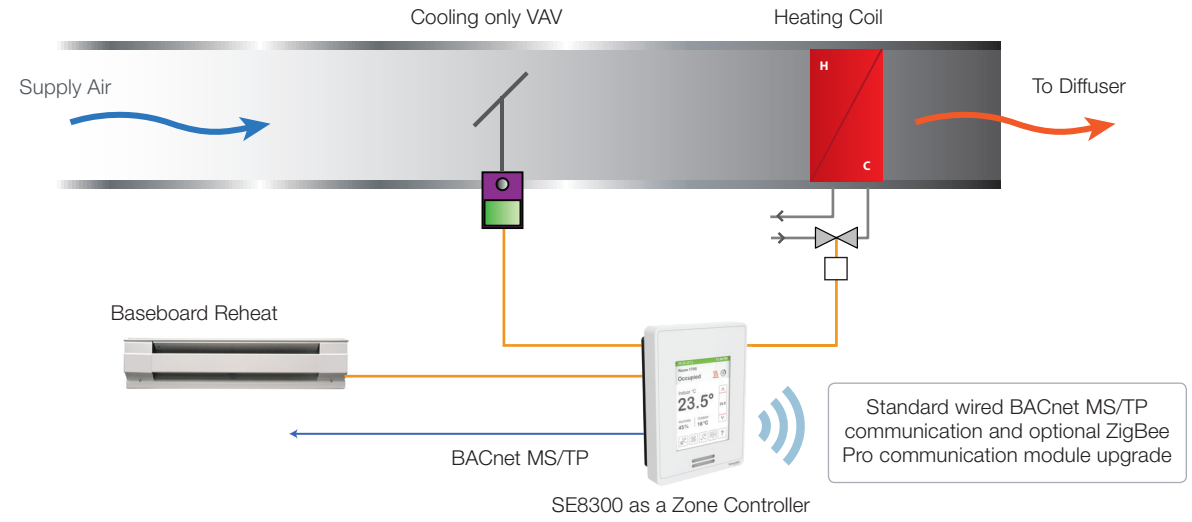
The SE83000 can also be used as a Zone Controller to control ON/OFF, floating, or 0 to 10 Vdc heating or cooling terminal equipment such as pressure dependent VAVs, Valves, and other end devices.

The following show common applications when used as a Zone Controller:

- Cooling only VVT zone with reheat
- Fin-tube radiators
- Cabinet heaters
- Radiant panel heaters
- Electric re-heat zones
- Pressure dependent VAV system
- Terminal reheat

The above options are similar to those provided by the SE7200 series Room Controllers.

### TYPICAL ZONE CONTLLER APPLICATION



# SE8300 Room Controller Specifications

## Specifications

### SE8300

**Dimensions**

12cm/4.72in (H) x 8.6cm/3.38in (W) x 2.5cm/1in (D)

**Power Requirements**

20- 28 Vac, 50/60Hz

4VA + Output Load (64 VA Max.)

**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 and Heating: Default: 1.8°C ( 3.2°F )

**Binary Inputs**

Dry contact across terminal BI1, BI2 and UI3 to Scom

**Wire Gauge**

16 gauge maximum, 22 gauge recommended

**Approximate Shipping Weight**

0.34 kg (0.75 lb)

**Output Ratings**

Optomos output: 30 AC/DC, 0.5 Amp.
(above 25 °C, reduce by 5mAmp/°C)
Analog: 0 - 10 Vdc in 2 kilo-ohm resistance minimum load (maximum 5 mA)

**Safety Standards All Models**

LVD Directive 2006/95/EC
- IEC 60730-1 ed 5.0
- IEC 60730-2-9 ed 3.1
- IEC 60730-2-13 ed 2.0

UL 873

CSA C22.2 No. 24-93

**EMC Standards All Models**

EMC Directive 2004/108/EC
- IEC 61326-1:2005

FCC 15 Subpart B

ICES-003

**Radio Standards (Wireless Models)**

R&TTE Directive 1999/5/EC
- ETSI EN 300 328 V1.8.1
- ETSI EN 301 489-1 V1.9.2
- ETSI EN 301 328 V1.8.1

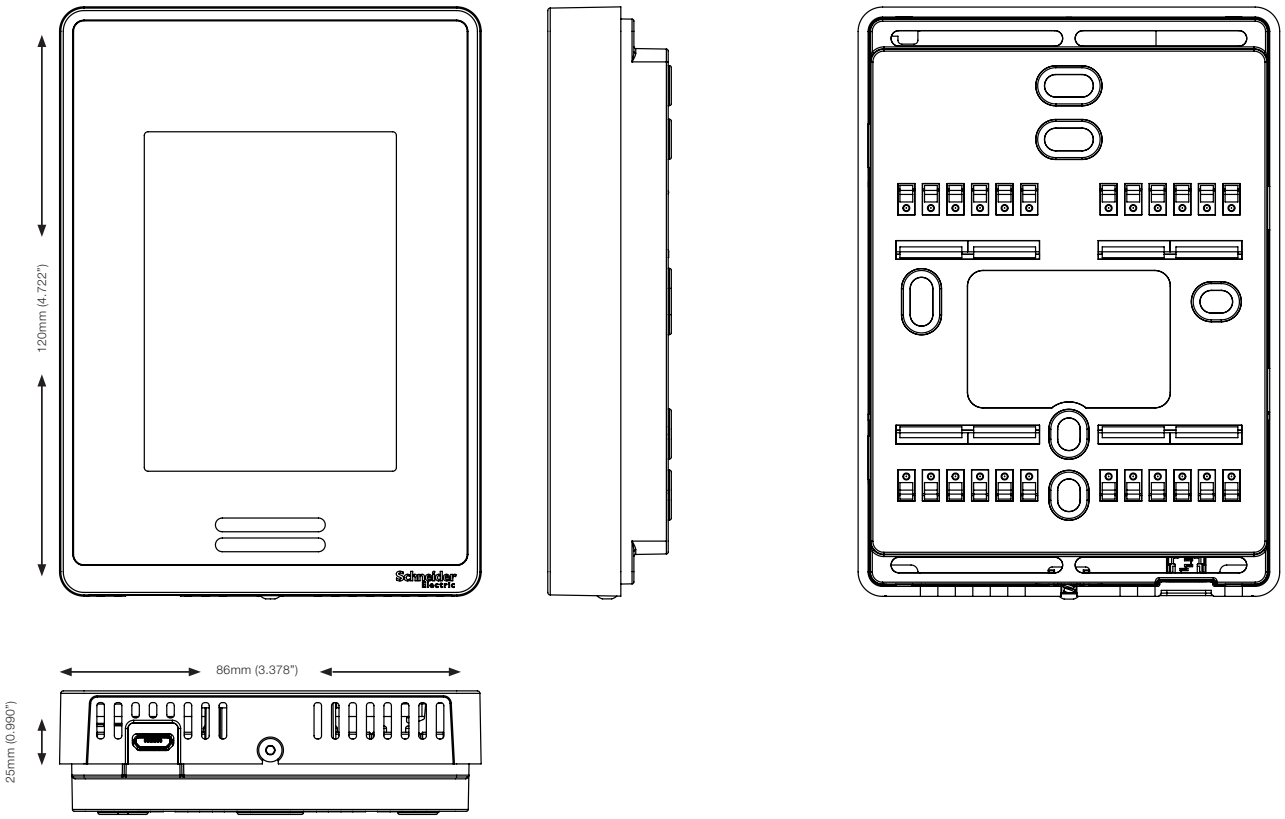
FCC 15 Subpart C

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.

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

## Dimensions



# SE8300 Room Controller Ordering Information

## Ordering information

SE83 5 0 U 5 B 0 0

**RH sensor and control**
-00 = No RH sensor or control
-50 = RH sensor with dehumidification control

**Compatibility**
-U = Universal outputs

**PIR motion sensor**
-0 = No PIR
-5 = PIR on board

**Network**
-B = BACnet® MS/TP
*(ZigBee Pro communication module available separately)*

**Casing and fascia**
-00 = Silver/Silver
-11 = White/White
*(Replacement fascias available separately)*

ZigBee® Pro communication module (ordered separately)
VCM8000V5045P

Replacement fascias (ordered separately)

| | |
|---|---|
| FAS-00 | Silver |
| FAS-01 | White |
| FAS-02 | Glossy translucent silver |
| FAS-03 | Glossy translucent white |
| FAS-04 | Glossy translucent black |
| FAS-05 | Light tan wood grain finish |
| FAS-06 | Dark brown wood grain finish |
| FAS-07 | Dark black wood grain finish |
| FAS-08 | Brushed aluminium finish** |
| FAS-09 | Light grey slate finish |

## Part numbers

| SE8300 part numbers | RH sensor & control | PIR motion sensor | Silver casing & fascia | White casing & fascia |
|---|---|---|---|---|
| SE8300U0B00 | | | x | |
| SE8350U0B00 | x | | x | |
| SE8300U5B00 | | x | x | |
| SE8350U5B00 | x | x | x | |
| SE8300U0B11 | | | | x |
| SE8350U0B11 | x | | | x |
| SE8300U5B11 | | x | | x |
| SE8350U5B11 | x | x | | x |

## Part numbers

For
- Communication modules
- Fascias

Consult their respective datasheets for the latest available part numbers and features