Room Controllers

SER8300 Line Voltage Fan Coil Controller with SC3000 Relay Pack

Application specific controller with customizable covers and screen colours. The SER8300 is a line-voltage fan coil terminal equipment controller with relay packs. Suitable for both commercial and high end hospitality markets.



compatible with

SmartStruxure™ SmartStruxure Lite ZENO InnPoint™







SER8300 Room Controller and SC3000 Relay Pack Features





AT A GLANCE

Custom design

- Touch screen with customizable user experience
- · 2 different casing options
- 10 different fascia options
- 5 selectable screen colors out of the box
- Supports the upload of a custom standby screen
- Supports the display of custom messages when integrated to a BACnet system
- English, French, Spanish, Chinese and other languages selectable out of the box
- One touch changes °C / °F

Options and accessories

- SC3000 relay pack to interface with line-voltage fan coil
- On-board PIR occupancy sensor (optional)
- RH sensor with dehumidification control (optional)
- Can be used with wireless door and window contact sensor (optional)

Integration

 Multiple options for integration to other Schneider Electric systems The perfect balance between simplicity and sophistication. Select from a wide variety of casings, fascias, and configurable screen colours to match decor. Display your own logo and custom messages on screen to reinforce your brand and provide a more enjoyable occupant experience.

Introduction

This two component retrofit option consists of the SER8300 Room Controller and the SC3000 relay pack. Together, they provide an easy solution for retrofitting fan coil unit thermostats without requiring other components such as relays, transformers, controllers, sensors, and network wiring to be upgraded. Existing line voltage wiring between the fan coil unit and temperature controller can be reused further minimizing overall labour and installation costs for both retrofit and new construction control projects. Additional flexibility and energy savings can be achieved with optional wireless door and window switches.

Touch Screen with Customizable User Experience

The touch screen of the SER8300 offers a customizable user experience with selection of languages, units, 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 SER8300 is integrated to a BACnet system).

SER8300 Product Highlights

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

Networking between SER83000

- ZigBee PRO wireless mesh network (P)
- BACnet MS/TP (B)

StruxureWare

Building Operation

SER8300 Room Controller and SC3000 Relay Pack Features

SER8300

23.5°

BACnet MS/TP

ZigBee

Integration to Schneider Electric systems

SER8300 can be integrated to SmartStruxure™ solution (StruxureWare™ Building Operation), SmartStruxure Lite solution (StruxureWare Building Expert), and other Schneider Electric systems.

- Direct wired integration to BACnet MS/TP
- ZigBee Pro integration to MPM device
- MPM device integration to BACnet IP, oBIX and EWS

SC3000

For SC3000 relay pack features, consult the SC3000 datasheet.



Architects can Custom Match Styling to Decor Select from 2 different casings and 10 fascias. Five screen colours are also configurable out of the box.

> 5 configurable screen colors











> Custom standby screen

MPM device



> Custom messages

Automation

Server

StruxureWare Building Expert



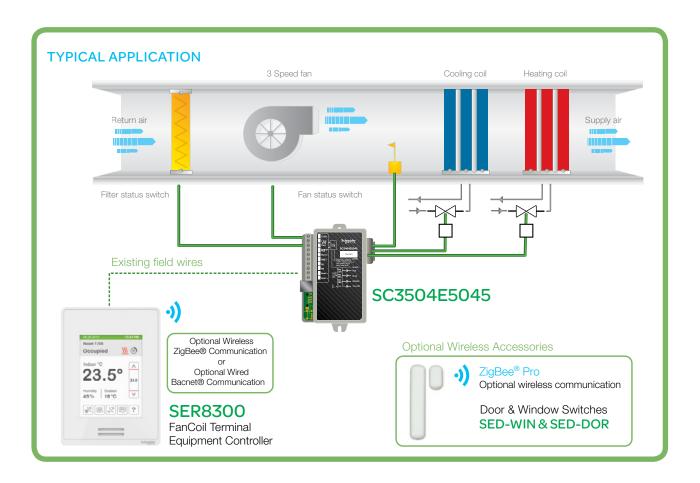


**Wireless not available for this model

SER8300 Room Controller and SC3000 Relay Pack Features

Line Voltage Fan Control Units

The SER8300 is configured to manage up to 10 different SC3000 relay packs, each controlling a line voltage fan coil installation. The diagram below shows an example of a typical line voltage fan coil application and how it would be wired to the relay pack controlled by the SER8300.



Specifications

SC3000 and SER8300

Dimensions

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

SC3000 Power Requirements

90 - 277 Vac universal, 50/60Hz

SER8300 Power Requirements

(supplied by SC3000)

6.5 - 28 Vdc or 20 - 28 Vac, 50/60Hz

2.4 watts minimum

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

 \pm 0.1 °C (\pm 0.2 °F)

Temperature Control Accuracy

 \pm 0.5 ° C (\pm 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

18 gauge maximum, 22 gauge recommended, 24 gauge minimum

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

UL 61010 - 1 (3rd edition)

CSC 61010 - 1 (3rd edition)

IEC 61010 - 1 (3rd edition)

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

IEC 61326-1:2005

EN 301 489-1 V1.9.2

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.

SER8300 Room Controller and SC3000 Relay Pack

