

# Room Controller

## SER7300 Line Voltage Fan Coil Controller with SC3000 Relay Pack

The SER7300 fan coil unit solution requires installation of only two components, the SER7300 terminal equipment controller and the SC3000 relay pack. This allows reuse of existing line-voltage wiring between the fan coil unit and temperature controller, thereby reducing overall costs, labor, and installation time for both retrofit and new construction control projects.



# SER7300 and SC3000 Series Features



## AT A GLANCE

### Custom design

- Suitable for commercial and hospitality markets and systems
- Available as a stand-alone unit with Network Ready functionality
- Available with ZigBee® Pro wireless mesh network or BACnet® MS-TP communication module
- Advanced occupancy functions for commercial and lodging applications
- Configurable fan sequence operation
- On board configuration interface utility

### Options and accessories

- PIR occupancy sensor
- Humidity sensor with on-board dehumidification strategy functions
- Wireless door and window switches communication

The SER7300 fan coil unit room controllers are available as stand-alone, Network Ready, BACnet® MS/TP or wireless ZigBee® Pro networked models. The stand-alone Network Ready models can be easily retrofitted on-site with our network communication modules for BACnet® MS/TP or wireless ZigBee® Pro protocols.

### Introduction

Now, a new cost-effective solution is available for upgrading line-voltage fan coil unit thermostats. The SER7300 fan coil unit solution requires installation of only two components; the SER7300 room controller and the SC3000 relay pack. This allows reuse of existing line-voltage wiring between the fan coil unit and temperature controller, thereby reducing overall costs, labour, and installation time for both retrofit and new construction control projects.

### Fan coil terminal equipment controls with relay packs

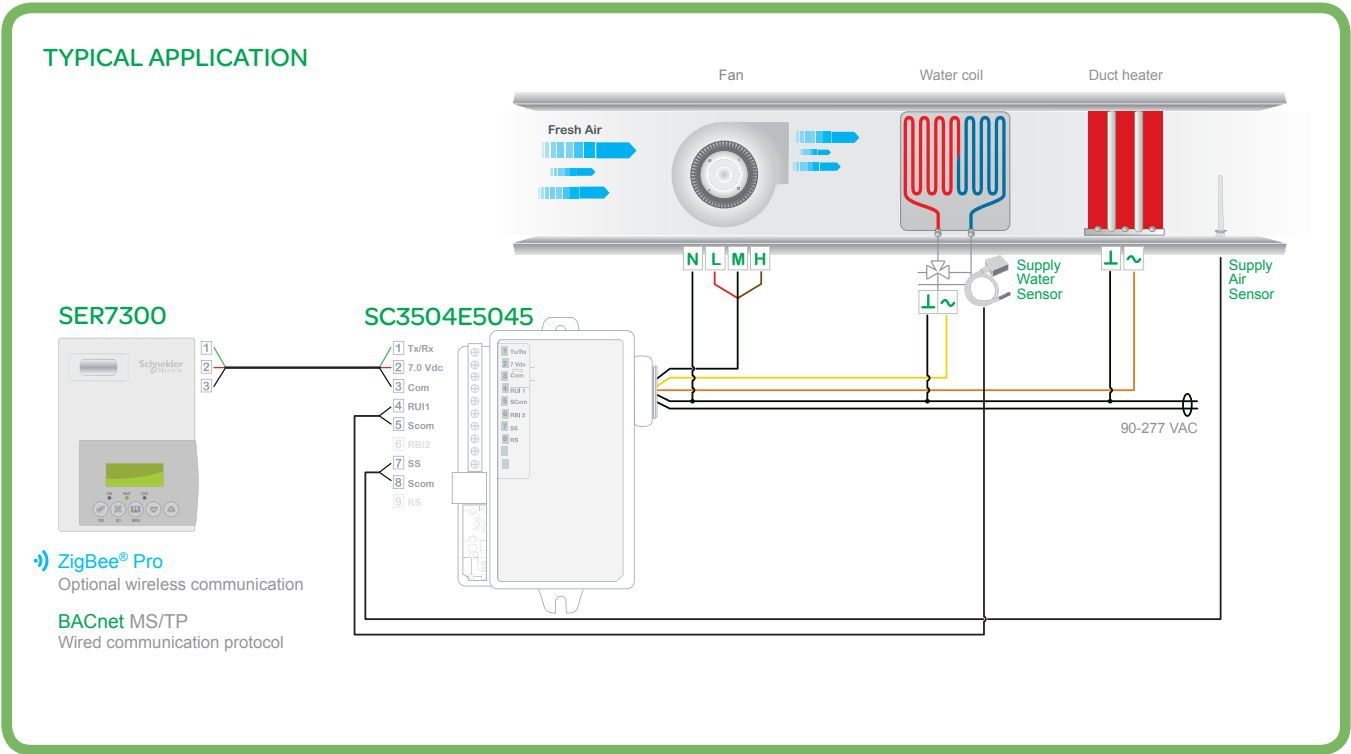
Upgrading an existing fan coil unit controlled by a line-voltage thermostat is an expensive option with poor return on investment. Extra components to upgrade, such as relays, transformers, controllers, sensors, and network wiring, caused proposals to be quickly dismissed. This resulted in fan coil units being controlled by stand-alone thermostats with no capacity for energy optimisation. As such, features available such as set point limitations, advanced occupancy routines, and other functions offered by central iBMS systems were simply not an option.

The SC3000 relay pack features an onboard 90 - 277Vac power supply and line-voltage relays, which directly drives fractional horsepower fan motors and valves. This eliminates the need to install and wire costly pilot relays and transformers.

The SER7300 wall mounted controller features a digital display and built-in commissioning and configuration utility, temperature sensor, and optional humidity and Passive Infrared (PIR) occupancy sensor. No previous building management training is required for the easy installation and commissioning process, which can be completed in fifteen minutes, reducing overall installation time and providing increased savings.

The SER7300 terminal equipment fan coil unit controllers are available as stand-alone, network ready, BACnet® MS/TP or wireless ZigBee® Pro networked models. The stand-alone network ready models can be easily retrofitted on-site with our network communication modules for BACnet MS/TP or wireless ZigBee Pro protocols. The stand-alone network-ready controllers allow for easy expandability, which ensures longevity and the possibility for future system upgrades.

# SER7300 and SC3000 Series Applications



# SER7300 Specifications

## Specifications

### Dimensions

12.5cm/4.9in (H) x 8.6cm/3.38in (W) x 2.9cm/1in (D)

### Power Requirements (SER7300)

7.0 VDC +/- 10%, 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 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 is 10%

20% to 80% precision is 5%

80% to 90% precision is 10%

### Humidity Sensor Stability

Less than 1.0 % yearly (typical drift)

### Dehumidification Setpoint Range

30% to 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 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 to Scorn

### Wire Gauge

14 gauge maximum, 22 gauge recommended

### Approximate Shipping Weight

0.75 lb ( 0.34 kg )

### Agency Approvals All Models

**cTUVus: UL:** UL 873 (US) and CSA C22.2 No. 24 (Canada), XAPX (US) and XAPX7 (Canada)

**Industry Canada:** ICES-003 (Canada)

**FCC:** Compliant to CFR 47, Part 15, Subpart B (US)

**CE:** EMC Directive 89/336/EEC (Europe Union)

**C-Tick:** AS/NZS CISPR 22 Compliant (Australia / New Zealand) Supplier Code Number N10696

### Agency Approvals Wireless Models

**FCC:** Compliant to: Part 15, Subpart C

**CE:** R&RTTE Directive 1999/5/EC (Europe Union)

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 UNDESIRABLE OPERATION.



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



## Ordering information

SER73   A   45

**Programmability:**  
 -0 = No humidity sensor  
 -5 = Internal humidity sensor

**Economizer / Humidity Control:**  
 -0 = Override for commercial applications  
 -5 = °C/°F, for hotels/lodging applications

**PIR options:**  
 -50 = PIR ready but PIR cover not included  
 -55 = Factory assembled with PIR cover

**Communication options:**  
 -B = BACnet® MS/TP  
 -E = LonWorks®  
 -P = ZigBee Pro wireless  
 -W = ZigBee® wireless  
 - = Network ready

\* Some part number configurations may not be available.