# SE7000 Room Controllers

# **Product Catalog**





Schneider Electric Room Controllers bridge the gap between the cost of stand-alone thermostats, and the performance of DDC systems, by simplifying installation and commissioning, to control rooftop units, fan coil units, terminal units, and heat pump applications, for a wide variety of facilities.



# SE7000 Features

#### Easy to install

No need to interrupt operations when installing room controllers. You can re-use existing wiring or communicate wirelessly to sensors and gateways, thereby lowering installation costs and keeping downtime in check.

#### Precise comfort

Room controllers look like thermostats, but work like controllers. They deliver the optimal level of comfort while maximizing savings on energy and operational costs

#### Easy to commission

No need for software or other tools. Commissioning is done by configuration through the user interface of the room controller, thereby saving on engineering time and cost.

#### **Powerful control**

Get the most out of your HVAC systems with the application-specific control and PID algorithms native to room controllers. You can also optimize your space by using the optional occupancy detection and scheduling features.

#### Easy to scale

The native connectivity of room controllers enables upstream connection to a wide variety of Building Management Systems (BMS), and downstream connection to wired and wireless sensors.

#### Significant savings

Room controllers provide an accelerated return on investment with savings at all levels: installation, commissioning, energy optimization, and maintenance.



Simply the most cost-effective option on the market.

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Not all products in the catalogue may be available in every country, please check availability with the local Schneider Electric office.



# Reduce energy waste & improve comfort.

Accelerate your return on investment with easy to install and commission room controllers

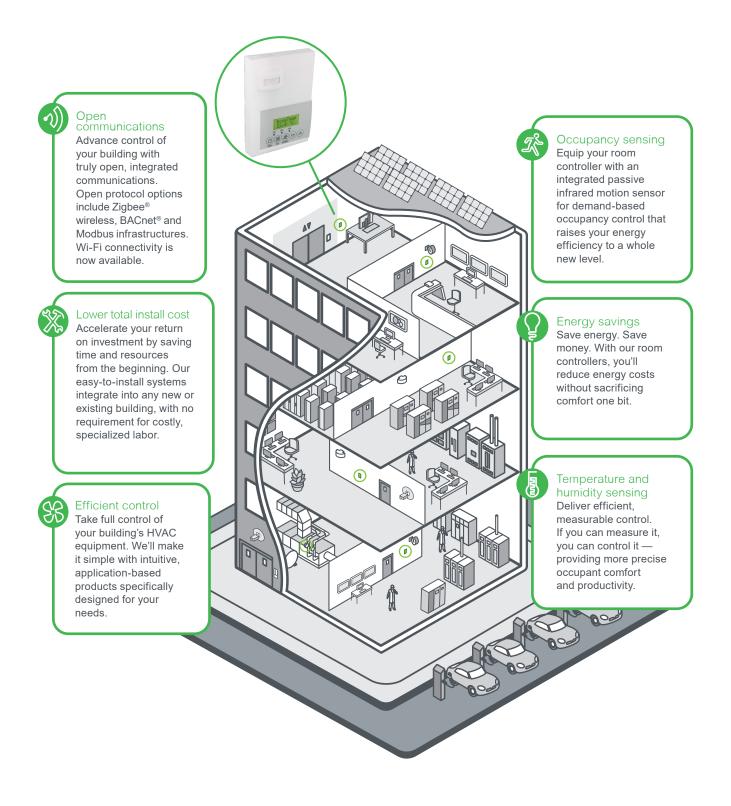


Schneider Electric Room Controllers provide comfort and energy savings using their native application-specific control sequences, PID algorithms, occupancy detection and schedule management.



# Cost-saving, energy-saving applications

From hotels and hospitals to schools, retail, and commercial buildings, Schneider Electric offers wide-ranging room control solutions for your building management needs. Whether retrofitting current systems with a more technologically advanced room controller or going greener, Schneider Electric has the ideal, cost-competitive solution. Our Room Controllers can be equipped with an integrated passive infrared motion sensor for demand-based occupancy control that opens up new opportunities in smart energy management.



SE7000 Room Controllers

The SE7000 Room Controllers offers a variety of application-specific products to increase the comfort of building occupants while reducing energy costs and consumption and accelerating return on investment. These digital controllers give users easy-to-install, thermostat-like functionality that can sense occupancy and adjust set-point or fan speed control. The SE7000 can be easily integrated into most Building Management Systems (BMS).







SE7200	SE7300 and SER7300	SE7600
> Zone control, heating/cooling • Reheat control • Induction units • Chilled beam • Under floor heating • Perimeter radiant heat	<ul> <li>Fan coil, three-speed fan</li> <li>Low-voltage, line-voltage and mixed-voltage fan coil unit control</li> <li>Multiple fan speed, heating and cooling stages configurations</li> <li>Humidity control options</li> <li>Relay pack accessories for line-voltage</li> </ul>	<ul> <li>Rooftop or heat pump</li> <li>Economizer option</li> <li>Humidification/dehumidification</li> <li>Heat pump units</li> <li>Rooftop, 3 heat/2 cool</li> <li>Water source with dehumidification, 1 heat/2 cool</li> </ul>
	and mixed-voltage applications  Zone control Fin-tube radiators Cabinet heaters Radiant panel heaters Electric re-heat zones Terminal reheat	

# SE7200 | Communicating and network-ready zone controllers

Smart energy management has never been easier than with the SE7200. Designed for new construction or retrofit projects, the controllers dramatically decrease total costs by reducing installation time, configuration and commissioning time. The SE7200 provides the advanced features and monitoring functions required by modern building automation systems without the use of software and commissioning tools.

	Part Number	Description	Output	PIR Cover	Communication
	SE7200C5045	Zone Controller Net Ready Floating Output	Floating or on/off	No	Stand-alone (network ready
	SE7200C5045B	Zone Controller BACnet Floating Output	Floating or on/off	No	BACnet
	SE7200F5045	Zone Controller Net Ready Analog Output	0 - 10 Vdc	No	Stand-alone (network ready
00	SE7200F5045B	Zone Controller BACnet Analog Output	0 - 10 Vdc	No	BACnet

## SE7300 | Low voltage communicating and network-ready fan coil controllers

The SE7300 provides the advanced features and monitoring functions required by modern building automation systems without the use of software and commissioning tools. The SE7300 is a low voltage fan coil terminal equipment controller suitable for commercial and hospitality markets. It can also be used as a zone controller or mixed voltage solution.

#### Commercial interface (local override)



Part Number	Description	Humidity	Output	PIR Cover	Communication
SE7350C5045	Fan Coil Unit Control with Humidification Control Net Ready Floating Output Communication Module	Yes	Floating or on/off	No	Stand-alone (network ready)
SE7350C5045B	Fan Coil Unit Control with Humidification Control BACnet Floating Output Communication Module	Yes	Floating or on/off	No	BACnet
SE7350F5045	Fan Coil Unit Control with Humidification Control Net Ready Analog Output Communication Module	Yes	0 - 10 Vdc	No	Stand-alone (network ready)
SE7350F5045B	Fan Coil Unit Control with Humidification Control BACnet Analog Output Communication Module	Yes	0 - 10 Vdc	No	BACnet

#### Hotel/lodging interface (°C/°F selection)



Part Number	Description	Humidity	Output	PIR Cover	Communication
SE7355C5045	Fan Coil Unit Control with Humidification Control Net Ready Floating Output Hotel	Yes	Floating or on/off	No	Stand-alone (network ready)
SE7355C5045B	Fan Coil Unit Control with Humidification Control BACnet Floating Output Hotel	Yes	Floating or on/off	No	BACnet
SE7355F5045	Fan Coil Unit Control with Humidification Control Net Ready Analog Output Hotel	Yes	0 - 10 Vdc	No	Stand-alone (network ready)
SE7355F5045B	Fan Coil Unit Control with Humidification Control BACnet Analog Output Hotel	Yes	0 - 10 Vdc	No	BACnet

## SE7300-ECM | ECM fan coil controllers

More and more engineers are commonly specifying fan coil units that function with electronically commutated motors, which offer better energy efficiency and reduced operating costs. The SE7300 ECM fan coil Controller allows you to capitalise on this additional energy savings by optimising fan control sequences of electronically commutated motors. The Controller is optimised to offer full proportional operation versus the traditional three-speed tap operation. This wall-mounted Controller features an easy-to-read digital display and built-in commissioning and configuration utility, temperature sensor and optional humidity and passive infrared occupancy sensor (PIR) cover.

#### Commercial interface (local override)



Part Number	Description	PIR Cover	Communication
SE7300F5045B-ECM	ECM Fan Coil Unit Control BACnet Analog Output Communication Module	No	BACnet

#### Hotel/lodging interface (°C/°F selection)



Part Number	Description	PIR Cover	Communication
SE7305F5045B-ECM	ECM Fan Coil Unit Control BACnet Analog Output Hotel	No	BACnet

## SER7300 | Line-voltage fan coil terminal equipment controller with relay packs

The SER7300 fan coil unit solution requires installation of only two components, the SER7300 terminal equipment controller and the VC3000 relay pack (refer to "Relay Packs" on page 30 for more information). 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.

### Commercial interface (local override)



Part Number	Description	Humidity	PIR Cover	Communication
SER7350A5045	Fan Coil Unit Control with Humidification Control Net Ready Communication Module	Yes	No	Stand-alone (network ready)
SER7350A5045B	Fan Coil Unit Control with Humidification Control BACnet Communication Module	Yes	No	BACnet

#### Hotel/lodging interface (°C/°F selection)



Part Number	Description	Humidity	PIR Cover	Communication
SER7355A5045	Fan Coil Unit Control with Humidification Control Net Ready Hotel	Yes	No	Stand-alone (network ready)
SER7355A5045B	Fan Coil Unit Control with Humidification Control BACnet Hotel	Yes	No	BACnet

# SE7600 | Communicating and network-ready Rooftop controllers

Primarily designed for use in small to mid-sized commercial building applications, SE7600 room controllers can be installed in any building using a standard Rooftop or heat pump unit with a requirement for advanced fresh air control. Capable of controlling economiser-free cooling and demand-based ventilation strategies, the SE7600 provides fresh air measurement input right out of the box.

	Part Number	Description	Scheduling	Economizer	Heat/Cool Stages	Humidity	PIR Cover	Communication
	SE7652B5045	Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool Net Ready	Yes	No	2H/2C	No	No	Stand-alone (network ready)
	SE7652B5045B	Rooftop Local Scheduling / Programmable Controller 2x Heat / 2x Cool BACnet	Yes	No	2H/2C	No	No	BACnet
Room Team	SE7656B5045	Rooftop Local Scheduling / Programmable Controller + ECO Net Ready	Yes	Yes	2H/2C	No	No	Stand-alone (network ready)
	SE7656B5045B	Rooftop Local Scheduling / Programmable Controller + ECO BACnet	Yes	Yes	2H/2C	No	No	BACnet
	SE7657B5045	Rooftop Local Scheduling / Programmable Controller Net Ready + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	No	Stand-alone (network ready)
	SE7657B5045B	Rooftop Local Scheduling / Programmable Controller BACnet + Humidification / Dehumidification Control	Yes	No	2H/2C	Yes	No	BACnet

### SE7656E | Communicating and network-ready Indoor air quality controllers

Indoor air quality is increasingly becoming a major concern to businesses, building managers, tenants, and employees because of its direct impact on the comfort, well-being, and productivity of the building's occupants. The SE7656E indoor air quality Controller, along with a  $\rm CO_2$  sensor, is a cost-effective solution capable of controlling economiser-free cooling and demand-based ventilation strategies, while providing a fresh air measurement input. When connected to a building automation system, the Controller can monitor and verify the  $\rm CO_2$  and fresh air levels, ensuring optimal air quality and energy efficiency.

	Part Number	Description	Scheduling	Heat/Cool Stages	PIR Cover	Communication
	SE7656E5045	Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO Net Ready	Yes	2H/2C	No	Stand-alone (network ready)
Residence of the second	SE7656E5045B	Indoor Air Quality Local Scheduling / Programmable Controller 2x Heat / 2x Cool + ECO BACnet	Yes	2H/2C	No	BACnet

# SE7652F | Communicating and network-ready Rooftop controllers for modulating heat

The new SE7652F Rooftop terminal equipment Controller with modulating heat can make your building more comfortable while still meeting the ventilation codes for minimum building fresh air requirements. The easy-to-install SE7652F includes modulating heat functionality, which allows the addition of an extra supply air temperature control loop to better control and condition the supply air levels for a more comfortable occupant environment.

	Part Number	Description	Scheduling	Heat/Cool Stages	PIR Cover	Communication
Series Control of the	SE7652F5045	Modulating Heat Application Local Scheduling / Programmable Controller 1x Heat / 2x Cool Net Ready	Yes	1H (analogue)/2C	No	Stand-alone (network ready)
	SE7652F5045B	Modulating Heat Application Local Scheduling / Programmable Controller 1x Heat / 2x Cool BACnet	Yes	1H (analogue)/2C	No	BACnet

## SE7652H | Communicating and network-ready Heat pump controllers

Primarily designed for use in small to mid-sized commercial building applications, SE7600 room controllers can be installed in any building using a standard heat pump unit with a requirement for advanced fresh air control. Capable of controlling economiser-free cooling and demand-based ventilation strategies, the SE7600 provides fresh air measurement input right out of the box.

Part Number	Description	Scheduling	Heat/Cool Stages	PIR Cover	Communication
SE7652H5045	Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool Net Ready	Yes	3H/2C	l No	Stand-alone (network ready)
 SE7652H5045B	Heat Pump Local Scheduling / Programmable Controller 3x Heat / 2x Cool BACnet	Yes	3H/2C	No	BACnet

## SE7652W | Water source heat pump controllers

The new SE7652W water source heat pump Controller (with dedicated dehunidification sequences) provides exceptional control of water source heat pumps for commercial buildings. Common indoor air quality issues such as mold, mildew, condensation, poor occupant comfort, and overall building health can be effectively resolved in an energy-efficient manner. Simple to install and commission, this wall-mounted device monitors water temperature, as well as other points, offering added value without the additional costs related to more complex systems.

	Part Number	Description	Scheduling	Heat/Cool Stages	PIR Cover	Communication
	SE7652W5045	Water Source Heat Pump Local Scheduling / Programmable Control- ler 3x Heat / 2x Cool Net Ready	Yes	3H/2C	No	Stand-alone (network ready)
	SE7652W5045B	Water Source Heat Pump Local Scheduling / Programmable Control- ler 3x Heat / 2x Cool BACnet	Yes	3H/2C	No	BACnet

# SEZ7000 | Commercial zoning systems Variable Volume and Temperature (VVT)

The SEZ commercial zoning system has been specifically designed to bring a simple scalable solution to mid-market commercial applications without the cost associated with a typical DDC zoning system. Models include Rooftop and heat pump units controlling analogue heat, CO<sub>2</sub> levels, and indoor air quality. Zoning controllers that provide floating and analogue damper control are also available. A single central Controller unit can support up to 32 individual zone controllers.

All zoning system controllers can be fitted with an on-board passive infrared (PIR) occupancy sensor cover that allows for advanced occupancy strategies, enabling greater energy savings to zones during scheduled events when no occupants are present.

#### Commercial zoning system - Zone controllers



Part Number	Description	Output	PIR Cover	Communication
SEZ7260C5045B	Zone System Control BACnet 2x Floating - Variable Volume & Temperature (VVT) Zone	Floating or on/off	No	BACnet
SEZ7260C5045W	Zone System Control Zigbee Wireless 2x Floating - Variable Volume & Temperature (VVT) Zone	Floating or on/off	No	Wireless
SEZ7260F5045B	Zone System Control BACnet 2x Analog - Variable Volume & Temperature (VVT) Zone	0 - 10 Vdc	No	BACnet
SEZ7260F5045W	Zone System Control Zigbee Wireless 2x Analog - Variable Volume & Temperature (VVT) Zone	0 - 10 Vdc	No	Wireless

#### Commercial zoning system - Rooftop master controllers



Part Number	Description	Heat/Cool Stages	IAQ	Econom.	Mod. Heat	Comm.
SEZ7656E1045B	Zone System Control BACnet 2x Heat / 2x Cool Indoor Air Quality - Variable Volume & Temperature (VVT) Master	2H/2C	Yes	Yes	No	BACnet
SEZ7656E1045W	Zone System Control Zigbee Wireless 2x Heat / 2x Cool Indoor Air Quality - Variable Volume & Temperature (VVT) Master	2H/2C	Yes	Yes	No	Wireless
SEZ7656F1045B	Zone System Control BACnet 1Heat / 2Cool Modulating Heat Application - Variable Volume & Temperature (VVT) Master	1H/2C	No	No	Yes	BACnet
SEZ7656F1045W	Zone System Control Zigbee Wireless 1x Heat / 2x Cool Modulating Heat Application - Variable Volume & Temperature (VVT) Master	1H/2C	No	No	Yes	Wireless
SEZ7656R1045B	Zone System Control BACnet 2x Heat / 2x Cool Rooftop - Variable Volume & Temperature (VVT) Master	2H/2C	No	No	No	BACnet
SEZ7656R1045W	Zone System Control Zigbee Wireless 2x Heat / 2x Cool Rooftop - Variable Volume & Temperature (VVT) Master	2H/2C	No	No	No	Wireless

#### Commercial zoning system - Heat pump controllers



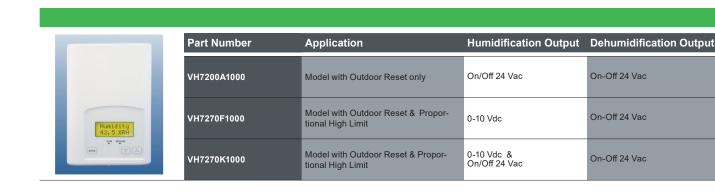
Part Number	Description	Communication
SEZ7656H1045B	Zone System Control BACnet Heat Pump - Variable Volume & Temperature (VVT) Master	BACnet
SEZ7656H1045W	Zone System Control Zigbee Wireless Heat Pump - Variable Volume & Temperature (VVT) Master	Wireless

## VH7200 | Humidistats

Schneider Electric humidistats offer exceptional control of both humidification and dehumidification equipment found in typical commercial buildings. Models with advanced built-in functions such as a modulating high limit and outdoor temperature humidity setpoint reset are also available.

All models contain a binary input, which can be set by the user to monitor an electrode humidifier canister service status or may be used as a general purpose service indicator.

The VH7200 humidity controller family is specifically designed for control of humidification and dehumidification equipment such as steam header direct injection, desiccant wheel, or stand-alone humidification / dehumidification equipment. The product features a complete embedded humidity control solution with an intuitive backlit LCD display that walks the installer through the configuration steps, making the process extremely simple. Accurate relative humidity control is achieved due to the product's unique PI time proportional control algorithm, which virtually eliminates humidity offset associated with traditional, differential-based humidity controllers.



# Wireless Accessories

# BMS wireless integration

The wireless versions of the SE7000 room controllers provide a simple yet powerful solution which targets such retrofit installations where running new communication wiring is cost prohibitive. The wireless room controllers can dramatically reduce project installation costs by re-using the existing control wiring already in place between older electronic thermostats and the terminal equipment. No new network wires are required since the controllers rely on a fully integrated Zigbee wireless mesh network infrastructure. Wireless SE7000 room controller devices can connect to a wide variety of Zigbee enabled BMS servers or controllers, providing remote management and supervision of the system through the BMS Workstation client.

From wired to wireless systems, remote sensors to communication boards and covers, SE7000 Room Controllers can be tailored for any application-specific needs.

# Covers

SE7000 Room Controllers are compatible with passive infrared cover accessories. room controllers equipped with a passive infrared cover provide advanced active occupancy logic, which will automatically switch occupancy levels from 'occupied' to 'stand-by' and 'unoccupied' as appropriate. This built-in intelligence provides energy savings during occupied hours without sacrificing occupant comfort.



Part Number	Description	Compatibility
COV-BC-5031	Kit cover blind	SE7000 models
COV-FCU-C-5031	Cover for commercial room controllers	SE7300 models
COV-FCU-L-5031	Cover for hotel room controllers	SE7300 models
COV-RTUHP-5031	Cover for room controllers	SE7600 models
COV-ZN-5031	Cover for room controllers	SE7200 models
COV-PIR-BC-5031	PIR kit cover blind	SE7000 models
COV-PIR-FCU-C-5031	PIR cover for commercial room controllers	SE7300 models
COV-PIR-FCU-L-5031	PIR cover for hotel room controllers	SE7300 models
COV-PIR-RTUHP-5031	PIR cover for room controllers	SE7600 models
COV-PIR-ZN-5031	PIR cover for room controllers	SE7200 models

# **Communication Adapters**

SE7000 Room Controllers are network ready, designed to accept the addition of communication. With a network card available for field upgrade, your system can be networked to an integrated building management system for the most advanced control and functionality.

In the Part Number, please note that:

- W: Legacy Zigbee for replacement.
- · P: Zigbee Pro, compatible with all room controllers.



Part Number	Description	Compatibility
VCM7000V5000W	Wireless Communication Card - 7000 - Zigbee proprietary wireless retrofit communication module	7000 Room Controllers (72, 73, R73, and 76)
VCM7000V5000P	Wireless Communication Card - 7000 - Zigbee Pro extended profile retrofit communication module	7000 Room Controllers (72, 73, R73, 76xx(B,H) and 76x7(B))
VCM7260Z5000B	BACnet replacement communication module	7260(C,F)
VCM7260Z5000W	Zigbee replacement communication module	7260(C,F)
VCM7300T5000B	Communication Module BACnet 73 with Relay Module - BACnet retrofit communication module	R73xx(A)
VCM7300T5000E	Communication Module LON 73 with Relay Module - Echelon retrofit communication module	R73xx(A)
VCM7300V5000B	BACnet Communication Card - 7200/7300 - BACnet retrofit communication module	7200(C,F) and 73xx(C,F)
VCM7300V5000E	LON Communication Card - 7200/7300 - Echelon retrofit communication module	7200(C,F) and 73xx(C,F)
VCM7600W5000B	BACnet retrofit communication module	76xx(W,E,F)
VCM7600W5000W	Zigbee proprietary wireless retrofit communication module	76xx(W,E,F)
VCM7600V5000B	BACnet Communication Card - BACnet retrofit communication module	76xx(B,H)
VCM7600V5000E	LON Communication Card - Echelon retrofit communication module	76xx(B,H)
VCM7607V5000B	BACnet Communication Card - 76X7 -BACnet retrofit communication module	76x7(B)
VCM7607V5000E	LON Communication Card - Echelon retrofit communication module	76x7(B)
VCM7656Z5000B	BACnet replacement communication module	Z7656(E,F,R,H)
VCM7656Z5000W	Zigbee replacement communication module	Z7656(E,F,R,H)

The VCM7607V5045E (terminal equipment Controller Echelon LonTalk communication adapter) is not available for: SE7652W, SE7652F Controller models.

# Remote Sensors

Our discreet line of wall mount room sensors is used for advanced room temperature sensing. Each model is equipped with three thermistors and two dip switches for various averaging combinations, with a temporary override key and an occupancy LED available in the advanced model.

#### **Duct-Mounted Temperature Sensors**

Part Number	Description
S1010D1000	Duct-mounted changeover sensor 10K  - Change Over Duct Sensing - Mounting: Through hole in duct, with eyelet
S1010E1000	Capsule type temperature sensor  - Remote sensing easy to dissimulate for indoor and outdoor use  - Water temperature sensing strapped on pipe or in an immersion well

#### **Duct & Outside Air Sensors**

 Part Number	Description			
S2000D1000	Duct supply air sensor with junction box  Remote return air temperature sensing with the sensor mounted on the return air duct.  Outside air temperature sensing with the sensor installed in the fresh air plenum.  Supply air temperature sensor			
S2020E1000	Outdoor air supply sensor  - Outside air temperature sensing with the sensor installed directly exposed to the elements.  - Sensor uses a water resistant NEMA 4 PVC enclosure for outdoor applications			

	Part Number	Description
	S3010W1031	Room sensor  - Remote room sensing  - 3 thermistors with 2 dip switches are provided with each sensor for various averaging combinations
o CSI Antonia	S3020W1031	Room sensor with temporary override key and occupancy LED  - Remote room sensing with override key and occupancy LED  - 3 thermistors with 2 dip switches are provided with each sensor for various averaging combinations

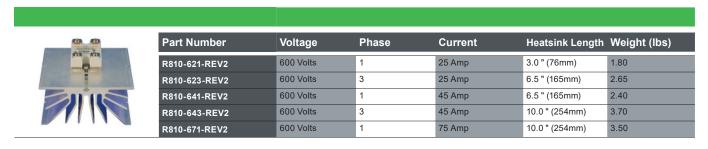
Part Number	Description
022-0114	Sensor changeover 47K

# **Electronic Heat Control**

Schneider Electric turns up the heat when is comes to electric heat controls. Choose between solid state relays, solid state relays with integrated heat sink, SCR power controls with various choice of analog input signals, electronic relays for electric baseboard heaters and Vernier low voltage step controllers.

#### **R810**

The R810 power switches have been designed for safe and reliable control of electric heat loads. This broad line of value priced products is used by most major North American duct heater manufacturers. The appropriate PWM or pulsed input signal can be provided by a DDC panel or a VT7225 thermostat.



#### **R820**

The R820 SCR power controls are designed for cost effective, precise modulation of electric loads for most electric heating applications. (Applicable on resistive loads only)

The R820 consists of SCR's power controls, c/w factory assembled heatsink for surface or in-panel mounting.



#### **R850V**

The R850V step controller is designed for cost effective, precise modulation of multi-stage control application. A common application is a multi step electric duct heater.

An integrated vernier control output will give a precise and full modulation of the load from 0 to 100% of the total capacity.

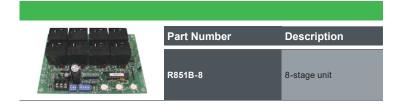


If more than 8 stage are required, the R850V-8 can be used as a master unit with another R850V as a slave unit. Adding another unit can bring the total step number up to 16.

#### **R851B**

The R851B step controller is designed for cost effective, precise modulation of multi-stage control application. A common application is a multi step electric boiler.

An integrated vernier control output will give a precise and full modulation of the load from 0 to 100% of the total capacity.

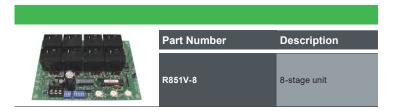


If more than 8 stages are required, the R851B-8 can be used as a master unit with another R851B as a slave unit. Adding another unit can bring the total step number up to 16.

#### **R851V**

The R851V step controller is designed for cost effective, precise modulation of multi-stage control application. A common application is a multi step electric duct heater.

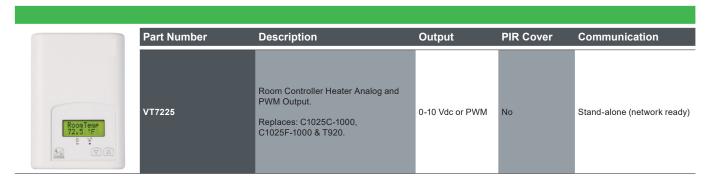
An integrated vernier control output will give a precise and full modulation of the load from 0 to 100% of the total capacity.



If more than 8 stages are required, the R851V-8 can be used as a master unit with another R851V as a slave unit. Adding another unit can bring the total step number up to 16.

## VT7225 | Modulating electric heat controllers

The VT7225 controllers are microcomputer-based, proportional and integral (PI) devices with one analog 0 to 10 Vdc output, one 8 Vdc and one 24 Vac proportioning pulsed output. The analog 0 to 10 Vdc modulating output can control the room or supply temperature by modulating directly a 0 to 10 Vdc SCR power controller. The Vdc and Vac pulsed outputs can control the room or supply temperature by modulating directly 4-32 Vdc triggered solid state relays (SSR's) using a time proportioning control algorithm on a 1 second time cycle.



Single point calibrated bulk polymer

10 - 90% RH (Non-condensing) ± 5% @ 20 - 80% RH (Non-con-

type sensor

densing)

30 to 95% RH

± 3% typical

## **Specifications**

# Room Controllers

	SE7200 and VT7225	SE7300	SE7600
	3E7200 and V17225	3E7300	3E7600
	Boon Temp 72.8 F	ROOM TEMP 22.0 C	Figure 1 april
gency approval	CE, C-Tick, UL	CE, C-Tick, UL	CE, C-Tick, UL
Veight	0.34 kg (0.75 lb)	0.34 kg (0.75 lb)	0.34 kg (0.75 lb)
Dimensions (H x W x D)			
Non-PIR model	125 mm x 87 mm x 30 mm (4.92" x 3.41" x 1.16")	125 mm x 87 mm x 30 mm (4.92" x 3.41" x 1.16")	125 mm x 87 mm x 30 mm (4.92" x 3.41" x 1.16")
PIR model	125 mm x 87 mm x 38 mm (4.92" x 3.41" x 1.47")	125 mm x 87 mm x 38 mm (4.92" x 3.41" x 1.47")	125 mm x 87 mm x 38 mm (4.92" x 3.41" x 1.47")
Power supply	19 - 30 Vac (50/60 Hz)	19 - 30 Vac (50/60 Hz)	19 - 30 Vac (50/60 Hz)
Dutputs			
Analog	0 - 10 Vdc	0 - 10 Vdc	0 - 10 Vdc
Triac	30 Vac, 1 amp	30 Vac, 1 amp	30 Vac, 1 amp
perating conditions	0 - 50 °C (32 - 122 °F) 0 - 95% RH (Non-condensing)	0 - 50 °C (32 - 122 °F) 0 - 95% RH (Non-condensing)	0 - 50 °C (32 - 122 °F) 0 - 95% RH (Non-condensing)
Temperature sensor type	10K Type 2	10K Type 2	10K Type 2
Temperature sensor accuracy	± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F)	± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F)	± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F

Single point calibrated bulk polymer type

± 5% @ 20 - 80% RH (Non-condensing)

10 - 90% RH (Non-condensing)

sensor

N/A

30 to 95% RH

Humidity sensor read range\*

Humidity sensor accuracy\*

Dehumidification setpoint range\*

Humidity sensor type\*

Economizer accuracy\*

N/A

N/A

N/A

N/A

N/A

<sup>\*</sup> Available with selected models.

# Specifications

# Remote Sensors

#### All sensors

Sensor type	10 K ohm type 2 NTC thermistor
Maximum wire length	1,525m (5000ft) for 24 GA wire and up

#### **Room Sensors**



Operating conditions	0 °C to 50 °C (32 °F to 122 °F) 0% to 95% RH non-condensing
Storage conditions	-30 °C to 50 °C (-22 °F to 122 °F) 0% to 95% RH non-condensing
Dimensions	125 mm x 86 mm x 29 mm (4.94" x 3.38" x 1.13")
Approximate shipping weight	155 grams (0.34 lbs)
Enclosure material	ABS - FRI [WT1337V] UV stabilised

#### **Duct Sensor**



Operating conditions	Up to 85 °C (185 °F) 0% to 95% RH non-condensing
Sensing bulb type	Plastic heatshrink
Wire length	305mm (12")
Probe length and diameter	114mm (4-1/2") and 6mm (1/4")

#### **Duct Sensor**



Operating conditions	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 95% RH non-condensing
Storage conditions	-40 °C to 70 °C (-40 °F to 122 °F) 0% to 95% RH non-condensing
Approximate shipping weight	300 grams (0.7 lbs)
Probe tip plastic type	Fire retarding grade "HB" ABS

#### **Outdoor Sensor**



Operating conditions	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 100% RH non-condensing
Storage conditions	-40 °C to 50 °C (-40 °F to 122 °F) 0% to 100% RH non-condensing
Approximate shipping weight	500 grams (1.1 lbs)
Enclosure plastic type	NEMA 4 PVC

# **Specifications**

# **Electronic Heat Control**

#### **R810 Power Switching Modules**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Power supply	4-32 Vdc time proportioning signal into $2K\Omega$ resistance

#### **R820 Power Controls**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Thermostatic protection	Self-resetting. Auto shut off when SCR ambient temp. is above 82°C (180°F)
Power supply	24 Vac -15%, +10% 50/60 Hz; 2 VA Use a Class 1 (properly fused) or Class 2, CSA or UL recognized transformer

#### **R850 Step Controller**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Relay outputs	Isolated relay 30 Vac @ 1.0 amps. max. per output, up to a maximum of 4.0 amps. total per R850 controller.
Vernier stage	Vdc pulsed: 6 Vdc, 30 mA max. 0 to 10 Vdc 5 mA max.
Input impedance	0 to 10 Vdc into 10 KΩ minimum
Power supply	24 Vac -15%, +10% 50/60 Hz; 4 VA  Use a Class 1 ( properly fused ) or Class 2, CSA or UL recognized transformer for power supply & relay outputs.

#### R851B Step Controller



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Relay outputs	Pilot duty: - 24 - 120 Vac – 720 VA - 240 Vac – 690 VA  Motor load: - 120 Vac – 1 HP - 240 Vac – 2 HP
Vernier stage	0 to 10 Vdc, 5 mA max.
Input impedance	0 to 10 Vdc into 10 KΩ minimum
Power supply	24 Vac -15%, +10% 50/60 Hz; up to 18 VA Use a Class 1 ( properly fused ) or Class 2, CSA or UL recognized transformer for power supply & relay outputs.
UL recognized	File # E212649

# **Specifications**

#### **R851V Step Controller**



Operating conditions	0 °C to 80 °C (32 °F to 176 °F) 0% to 95% RH non-condensing
Relay outputs	Pilot duty: - 24 - 120 Vac – 720 VA - 240 Vac – 690 VA  Motor load: - 120 Vac – 1 HP - 240 Vac – 2 HP
Vernier stage	0 to 10 Vdc 5 mA max. Vdc pulsed, 6 Vdc, 30 mA max
Input impedance	0 to 10 Vdc into 10 KΩ minimum
Power supply	24 Vac -15%, +10% 50/60 Hz; up to 18 VA  Use a Class 1 ( properly fused ) or Class 2, CSA or UL recognized transformer for power supply & relay outputs.
UL recognized	File # E212649

# Humidistats

#### VH7200 Humidistats



Humidistat power requirements	19-30 Vac 50 or 60 Hz; 2 VA ( RC & C ) Class 2
Operating conditions	0 °C to 50 °C ( 32 °F to 122 °F ) 0% to 95% R.H. non-condensing
Storage conditions	-30 °C to 50 °C ( -22 °F to 122 °F ) 0% to 95% R.H. non-condensing
Resolution	Temperature: ± 0.1 °C (± 0.2 °F) Humidity: ± 0.1%
Control accuracy	Humidity: ± 5% RH from 20 to 100% RH at 50 to 90°F (10 to 32°C)
Humidification setpoint range	10% RH to 90% RH
Dehumidification setpoint range	15% RH to 95% RH
Outdoor air temperature range	-40 °C to 50 °C ( -40 °F to 122 °F )
Binary inputs	Relay dry contact only across "Scom" and "DI1" terminals
Contact output rating	Each relay output: 30 Vac, 1 Amp. Max. / 30 Vac, 3 Amp. in-rush
Analog output rating	0 t0 10 Vdc into 2KΩ resistance minimum
Wire gauge	18 gauge maximum, 22 gauge recommended
Dimensions	4.94" x 3.38" x 1.13"
Approximate shipping weight	0.75 lb ( 0.34 kg )



# Check in to comfort. Check out the savings.

Hotel guest comfort meets energy savings with our room controllers



## **Relay Packs**

## VC3000 | Relay Pack

A compact and easy to install Relay Pack for line-voltage fan coil units to be used in combination with room controllers. The VC3000 is a Relay Pack for line-voltage fan coil units. The device is used with SER7300 room controllers as a two component retrofit option.



#### **Features**

The VC3000 Relay Pack features an on-board 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.

Description	
Dimension	Height: 12cm/4.72in / Width: 8.6cm/3.38in / Depth: 2.5cm/1in
Power	
Voltage output to SER7300	7.0 Vdc +/- 10% 2.4 watts minimum

Part Number	Details
VC3300E5000	Fan Coil Unit Relay Pack 3 slave fan speed relay outputs
VC3400E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 1 valve relay output 1 smart Vdc output
VC3404E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 1 valve relay output 1 smart Vdc output 4 inputs
VC3500E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 2 valve relay outputs
VC3504E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 2 valve relay outputs 4 inputs
VC3514E5000	Fan Coil Unit Relay Pack 3 fan speed relay outputs 2 valve relay outputs 4 inputs 1 occupancy output

# Relay Packs

# VC2300 | Mixed Voltage fan-coil package

A compact and easy to install Relay Pack for fan control for Mixed Voltages with 24Vac transformer units to be used in combination with SE7300 room controller as a two component Mixed Voltage solution.



#### **Mixed Voltage Application**

In combination with the SE7300 room controllers, the VC2300 allows control of a fan-coil requiring Mixed Voltage for the following:

- Line voltage for the 3-speed fan control (230Vac unit)
- · Low voltage for valve control
- · LED indication of relay status

Description		
Dimension	Height: 5cm/2in / Width: 14cm/5.5in / Depth: 17cm/6.7in	
Power		
Voltage	220-240Vac 1 phase 50/60Hz	
Contacts ratings	Resistive: 7A / 1680 W; Motor and or compressor: ¼ Hp / 10 LRA / 2.5 FLA approved for 30,000 operations at 240 Vac	
24Vac low voltage power output	0.5A, 12 VA max	
Outputs		
Number of outputs	3 on/off outputs	

Part Number	Description
VC2300E5000	Fan coil relay board 230Vac for Mixed Voltages with 24Vac Transformer



# Energy savings for a healthy bottom line

Increase the comfort of patients, visitors, and employees while reducing energy consumption with our room controllers





#### **Commercial buildings**

Room Controllers allow users to save costs and energy while providing a comfortable environment for maximum productivity. The system can be modified on site to match your specific energy conservation needs.



#### Retail

Enhance your system operation and efficiency with the room controllers. From a stand-alone device to simplified building management, Schneider Electric Room Controllers are ideal for your ever-changing location.



#### Healthcare

Gain full room control of your environment, whether it's a patient room, waiting room, or anywhere within your facility. Our Room Controllers give you the flexibility to customise and configure based on your needs.



#### Hotels/lodging

Guest comfort meets energy efficiency with Room Controllers. The intuitive user interface allows guests to control their own environments while our occupancy sensor and simple programming ensure efficiency.



#### **Education**

Whether it's a large campus with multiple buildings or a single primary school, the Room Controllers allow for scalability to control a wide variety of environments through occupied and unoccupied periods.



# For more information, please visit www.schneider-electric.com

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