Room Controller

SE7600 Rooftop Unit and Heat Pump Controller

The SE7600 room controller is specifically designed for single stage and multi-stage control of heating/cooling equipment such as rooftop and selfcontained units. The device features an intuitive, menu-driven, back-lit LCD display, which walks users through the programming steps, making the process extremely simple. Accurate temperature control is achieved due to the PI time proportional control algorithm, which virtually eliminates temperature offset associated with traditional, differential-based thermostats.

Schneider Electric

SE7600 RTU and HP Room Controller Features

When compared to traditional building automation Room Controllers, the SE7600 series roof top and heat pump wall mounted Room Controllers provide unmatched return on investment to building owners while maximizing profits for system integrators

Introduction

Smart energy management has never been easier than with the SE7600 series roof top and heat pump room controllers. Designed for new construction and retrofit projects, the controllers dramatically decrease total installed costs by reducing installation, configuration and commissioning time. No complex software or tools are required to customize functionality to meet your applications requirements. They provide all advanced features and monitoring functions required by modern building automation systems in a simple, "thermostat like" enclosure.

The SE7600 series offers control of staged heating and cooling equipment such as packaged roof top units and heat pumps for commercial buildings. Advanced models are available with built-in economizer or humidity strategies.

Open protocol design provides network compatibility to BACnet® MS/TP, LonWorks® and Wireless ZigBee Pro® network systems. Our Network Ready" stand-alone" versions can be field retrofit with optional communication modules which enable the controllers to be integrated into most building automation systems as budgets allow or as the building requirements change.

All models can be customized with PIR motion sensor functionality via an optional PIR accessory cover. The cover can be installed in the field or ordered as a factory installed option. This provides advanced occupancy routines and automatic energy savings during occupied periods without sacrificing occupant comfort.

Product Highlights

- Open protocol allows for easy integration into most network systems
- Network Ready models can be retrofit with optional communication modules
- One simple wall mounted device to install, wire and commission
- Intuitive "thermostat like" interface
- Application specific controllers can be configured to meet most applications
- No special software required for configuration
- Fully embedded local configuration utility
- Occupancy and monitoring functions through PIR cover
- Available with or without 7 day scheduling
- Single-stage, multi-stage and heat pump models available
- Available with economizer control

AT A GLANCE

Custom design

- Advanced occupancy functions
- Equipt for optional PIR cover
- 2 digital inputs
- Smart fan operation
- Unique configuration key with password
- Lockable keypad
- 6 hour reservable time for clock
- Remote room and outdoor temperature sensor
- Auxiliary output
- Discharge air sensor
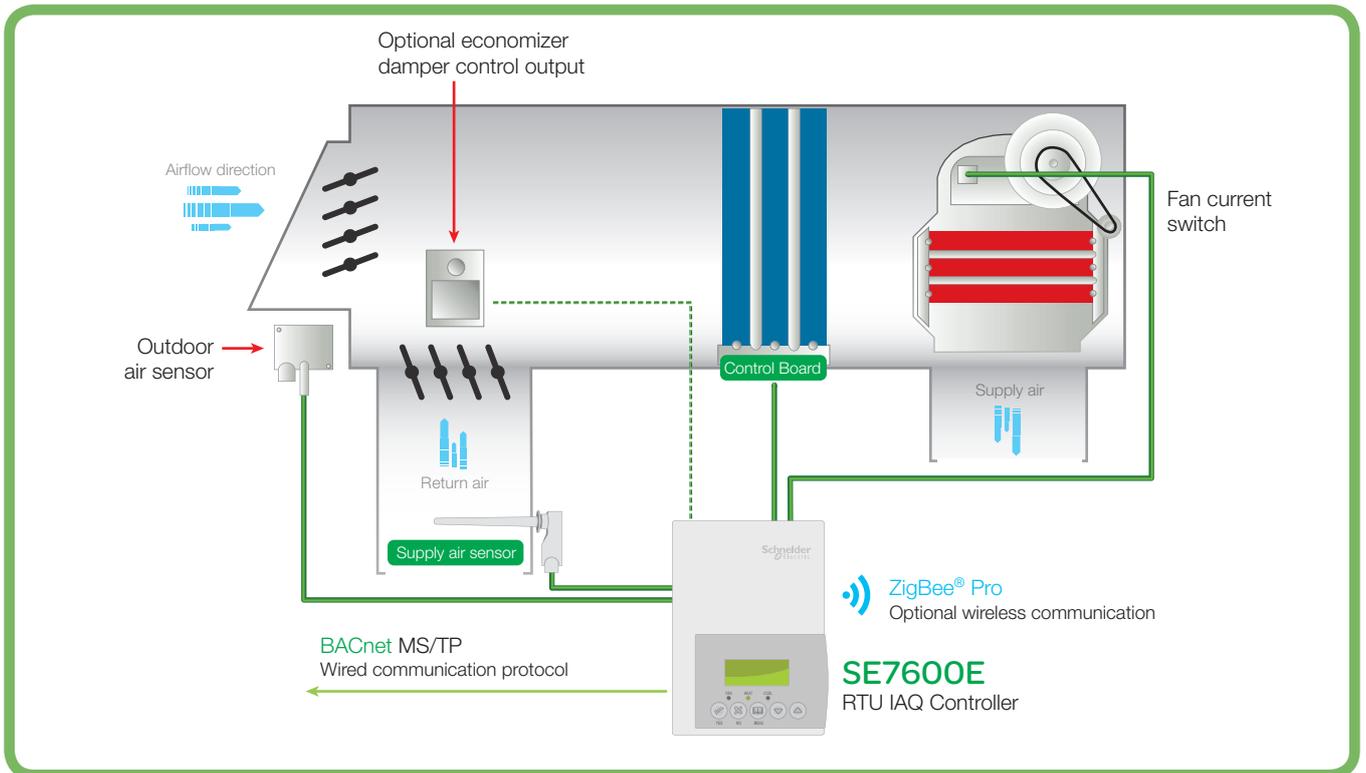- Intuitive menu-driven programming

Options and accessories

- Intuitive menu-driven programming
- Economizer output 0-10 Vdc
- 3Heat/2Cool for heat pump models

SE7600 RTU and HP Room Controller Applications

Simplified HMI

RoomTemp
72.5 °F

FAN   HEAT   COOL

YES   NO   MENU

Unique 5 button menu driven user interface simplifies programming and commissioning time during typical installation of unit.

Optional economizer damper control output

Airflow direction

Fan current switch

Outdoor air sensor

Control Board

Supply air

Return air

Supply air sensor

ZigBee® Pro
Optional wireless communication

BACnet MS/TP
Wired communication protocol

SE7600E
RTU IAQ Controller

SE7600 RTU and HP Room Controller Specifications

Specifications

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

Power Requirements
19-30Vac, 50/60 Hz; 2 VA (RC & C) Class 2
RC to RH jumper 2.0 Amps 48 VA maximum

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

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

Occ 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
Factory set, heating and cooling at: 1.1°C (2.0°F)

Digital Inputs
Relay dry contact only across C terminal to DI1 or DI2

Contact Output Rating
Each relay output: (Y1, Y2, G, W1, W2 & AU)
30 Vac, 1 Amp. maximum
30 Vac, 3 Amp. in-rush

Economizer Analog Output Rating
0 to 10 Vdc into 2KΩ resistance min.

Wire Gauge
18 gauge maximum, 22 gauge recommended

Approximate Shipping Weight
0.75 lb (0.34 kg)

Agency Approvals All Models
UL: UL 873 (US) and CSA C22.2 No. 24 (Canada), File E27734 with CCN XAPX (US) and XAPX7 (Canada)
Industry Canada: ICES-003 (Canada)
FCC: Compliant to CFR 47, Part 15, Subpart B, Class A (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

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.

Ordering information

SE76 ☐ ☐ ☐ ☐ ☐ 45 ☐

Programmability:
-0 = No local scheduling / Non programmable
-5 = Local scheduling / programmable

Economizer / Humidity Control:
-0 = No local scheduling / Non programmable
-2 = Local scheduling / programmable)
-5 = With economizer No local scheduling / Non programmable
-6 = With economizer Local scheduling / programmable

Application:
-A = 1H / 1C roof top unit applications
-B = 2H / 2C roof top unit applications
-H = 3H / 2C heat pump 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.