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Siemens offers a 5-year warranty on thermostats.

Save energy while maintaining a constant room climate

The Siemens line of room thermostats offer a range of products for simple to more complex buildings. These products are designed to optimize a constant room environment and achieve more energy savings. Make building operations effortless with basic climate control to advanced BACnet integration into building automation systems. Our thermostats are engineered for easy installation, easy operation and reliability, which leads to fewer callbacks.

Visit usa.siemens.com/thermostats to learn more.

Versatile Product Portfolio
Thermostats for every HVAC application

Quality
Rigorous testing to meet Siemens high standards

Less Effort
Easy to install and maintenance-free

Indoor Air Quality
Ensure healthy indoor climates

Maximize Comfort
Ensure occupant comfort and productivity

System Performance
Optimize building efficiency

SIEMENS

RDB160BNU Commercial Fan Coil Unit Room Thermostat with BACnet MS/TP Communication

RDB160BNU Fan Coil Room Thermostat

Description

The Siemens RDB160BNU is designed for commercial Fan Coil Unit applications with low voltage (24 VAC) control circuitry and features BACnet MS/TP communication capability. The RDB160BN has a tailored combination of on/off and modulating output signals, making it versatile to control 16 different types of Fan Coil Units.

The RDB160BNU Fan Coil Unit Thermostat enables various control strategies including Comfort, Standby (Economy), and Mold Protection. A built-in temperature sensor or external room/return air temperature sensor enables room temperature control. Analog, universal, and digital inputs are also available and can be configured to further enhance the operation and reduce the energy consumption.

Features

- BTL listed MS/TP ensures compatibility with any BACnet system
- Pre-programmed, pre-configured control programs
- Set-up Wizard enables rapid system configuration
- No special tools required for installation or commissioning
- Controls Fan Coil Units with:
  – 1, 2, 3-speed or DC 0…10 V fans
  – on/off, 3-position or DC 0…10 V valve actuators
  – on/off electric heaters
- Built-in temperature sensor in addition to configurable inputs enable advanced room controls based on external room/return air temperature, supply air temperature limitation, heating/cooling changeover, window contact, and occupancy sensor.*
- Changeover between heating and cooling mode (automatic with local temperature sensor, digital input, or through Building Automation System)

* Requires purchase of external sensor(s).

Applications

The versatile wall-mounted RDB160BNU Commercial Fan Coil Room Thermostat is suitable for applications where communication to a Building Automation System is required such as offices, healthcare, education, retail, shopping malls or other commercial facilities.

The RDB160BNU can control fan coil units of the following types:

- 2-pipe system
- 2-pipe system with electric heater
- 4-pipe system*

* The RDB160BNU can control Fan Coil Units with up to 2 DC 0…10 V control outputs i.e.: the control of a DC fan, DC cooling valve, and DC heating valve is not possible.

Specifications

Power Supply

Supply voltage ..... 18...30 V AC, Class 2
Frequency ..... 50...60 Hz
Power Consumption ..... 2.5 VA

Ambient and Environmental Conditions

Ambient temperature ..... 32...122°F (0...50°C)
Ambient humidity ..... Max. 90 % RH
Storage temperature ..... -4...158°F (-20…+70°C)
Protection class IP20

Communication

Communication ..... BACnet MS/TP
Communication speed ..... 9600, 19200, 38400, 76800 bps

Operational Data

Built-in temperature sensor 32...122°F (0...50°C) NTC linearized 15 kΩ
Accuracy ..... ±0.9°F (±0.5°C) at 59...86°F (15...30°C)
Setpoint range ..... 41° to 95°F (5° to 35°C)

Inputs

Analogue input (AI1) ..... PT1000 sensor, 0…50°C
Universal input (UI1) ..... Analogue input (AI), PT1000 sensor, 0...100°C or digital input (DI) potential-free contact
Digital input (DI1) ..... Potential-free contact
Common (C) power output - for UI and DI only ..... 24 V DC, max. 10 mA, short circuit-protected

Outputs

Digital outputs (DO) ..... 24 V AC, max. 0.5 A
Universal outputs (UO) ..... Digital output (DO) 24 V AC, max. 2.0 A or analogue output (AO), 0...10 V DC, max. 5 mA

General

Mounting ..... indoor, wall
Display ..... Backlit LCD
Material ..... casing Polycarbonate, PC
Color ..... Signal white RAL 9003
Dimensions ..... 3.74 x 3.74 x 1.10“ (95 x 95 x 28 mm)
Net weight ..... 3.88 ounces (110 g)

Standards, Directives, and Approvals

UL ..... UL 916
CE ..... EMC Directive
BTL ..... BACnet Testing Laboratory

Product Ordering

Description	Part No.
Commercial Fan Coil Unit Thermostat with BACnet MS/TP Communication	**S55770-T437**

RDY2000BN Commercial Room Thermostat with BACnet Communication

RDY2000BN Commercial Room Thermostat

Description

Our advanced, yet straightforward, addition to the Siemens controller family affordably automates stand-alone buildings. The Siemens Series RDY2000BN is designed for light commercial HVAC systems applications with 24 Vac control circuitry and features BACnet communication capability. The RDY2000BN extends a building automation system's coverage to packaged rooftop and heat pump HVAC unit systems with the comfort and control functionality found in direct digital control (DDC) systems.

It can operate as a stand-alone unit or networked to perform complex HVAC control, monitoring, and energy management functions as well as communicate with other devices and the management level.

Features

- BTL listed MS/TP ensures compatibility with any BACnet system
- Easy integration into Tridium systems with prebuilt AX graphics
- Seamless integration into Siemens BAS systems with pre-defined application profiles and graphics that help speed up installation
- Built-in flexible control programs for conventional and heat pump applications
- Controls conventional systems with up to 3 stages heating and 3 stages cooling
- Controls heat pumps with 1 or 2 compressors and up to 2-stage auxiliary heat
- Built-in temperature and humidity sensor in addition to configurable inputs enables advanced room controls based on humidity, CO_2, occupancy, remote or averaging temperature
- Set-up Wizard enables rapid system configuration
- No special tools required for installation or commissioning
- Seven-day, six-event (2- or 4-event) occupancy scheduling
- Sleek design with backlit 5-inch LCD touch screen

Hardware Features

- Standard 24 Vac HVAC interface: Y1, Y2, G, W1, W2 and O/B
- Three selectable relay outputs enable control strategies for humidity/dehumidity control, ventilation, economizer enable and occupancy notification
- Four configurable inputs*:
  – Digital input
  – Resistive temperature input
  – 0 to 10V input

* Requires purchase of external sensor(s).

Applications

The RDY2000BN is designed for light commercial HVAC systems with 24 Vac control circuitry. Compatible with forced air, hydronic and steam systems fired by gas, oil or electricity. Built-in temperature and humidity sensor in addition to configurable inputs enables advanced room controls based on humidity, CO2, occupancy, remote or averaging temperature. Selectable relays enable control strategies for humidity/dehumidity control, ventilation, economizer enable and occupancy notification.

- Controls conventional systems with up to 3 stages heating and 3 stages cooling.
- Controls heat pumps with 1 or 2 compressors and up to 2-stage auxiliary heat.

Specifications

Power Supply

Operating Voltage ..... 24 Vac ± 20%, Class 2, 4A maximum

Frequency ..... 50/60 Hz

Power Consumption Including Connected Field Devices ... Max. 96 VA

24 Vac Supply for Field Devices

Output relay ratings ..... Pilot duty, 1A maximum per output, 4A maximum total

Ambient Conditions and Protection Classification

Enclosure ..... NEMA 1

Transport ..... Temperature -13° to 158°F (-25° to 70°C)
Air humidity up to 95% (non-condensing)

Operation ..... Temperature 23° to 122°F (-5° to 50°C)
Air humidity Up to 95% (non-condensing)

Setpoint range ..... 45° to 95°F (7° to 35°C)

Standards, Directives, and Approvals

UL ..... UL 916

cUL ..... CSA C22.2 No. 205

CE ..... EMC Directive

ICES ..... Canada

NOM-NYCE ..... Mexico

Regulatory Compliance Mark ..... Australia

Federal Communications Commission ..... Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules.

BTL ..... BACnet Testing Laboratory

Shipping Weight ..... 14 ounces (0.4 kg)

Product Ordering

Description	Part No.
Commercial Thermostat with BACnet Communication	**RDY2000BN**
Remote Wall Mounted Temperature Sensor	**QAA2230.EWNN**
Remote Wall Mounted Temperature & Humidity Sensor	**QFA32SS.EWNN**
Duct Mounted Temperature Sensor	**QAM2030.010**
Wall Mounted CO_2 Sensor	**QPA2000**
Wall Mounted Temperature + Humidity + CO_2 Sensor	**QPA2062**
Outdoor Air Temperature Sensor	**QAC2030**
Surface Mount Pipe Temperature Sensor	**QAD2030**

RDY2000 Room Comfort Controller

RDY2000 Room Comfort Controller

Description

The Siemens Series RDY2000 Room Comfort Controller is designed for light commercial HVAC systems that utilize 24 Vac control circuitry. It is compatible with forced air, hydronic, or steam systems fired by gas, oil or electricity. The thermostat can control up to 3 stages of heating and 3 stages of cooling in a conventional system and heat pumps systems with up to 2 compressors and 2 stages of auxiliary/emergency heat. The RDY2000 is capable of interfacing with remote sensors and devices to completely manage all aspects of room comfort, including temperature, humidity, and air quality.

Hardware Features

- Compatible with conventional and heat pump applications
- Controls conventional systems with up to 3 stages of heating and 3 stages of cooling
- Controls heat pump systems with 1 or 2 compressors and up to 2 stages of auxiliary heat
- On-board temperature & humidity sensors
- Standard HVAC relay outputs
  - Compressor 1 (Y1)
  - Compressor 2 (Y2)
  - Fan (G)
  - Heating 1 (W1)
  - Heating 2 (W2)
  - Reversing Valve (O/B)
- 3 Configurable relay outputs (configurable via installer set-up menu)
  - Humidification
  - De-humidification
  - Economizer
  - Occupancy
  - ERV/HRV activation
- Configurable input #3 is a dry contact – can be powered with 24VAC via jumper
- 4 Configurable inputs (configurable via installer set-up menu)
- Remote temperature sensor
  - Outdoor temperature
  - Supply / return temperature(s)
  - Indoor temperature (remote or averaging)
- Remote humidity sensor
- CO_2 sensor
- Occupancy sensor

Control Features

- Set-up Wizard enables rapid system configuration
- Fully programmable scheduling function
  – 5+2 / 5+1+1 / 7-day capability
  – 2 or 4 periods per day
- Multiple options for determining occupancy
  – Scheduled occupancy
  – CO2 level vs. setpoint*
  – Occupancy / motion detection*
- Real time clock retains time & date for up to 48 hours upon loss of input power
- System configuration data is stored indefinitely upon loss of input power
- Interlocks and timers specifically designed for equipment protection
- Password protected installer set-up menu deters unauthorized changes
- Programmable fan enables fresh air circulation when not in heating/cooling mode
- Selectable lockout levels to minimize tampering with setpoints and schedule
- Programmable service reminders for humidifier pad, UV lamp, and air filter

* Requires purchase of external sensor.

General Features

- Sleek, unobtrusive design with backlit 5” LCD resistive touch screen
- Separable backplate with wiring terminals and mounting holes configured to match most conduit box configurations (screws and anchors included for drywall mounting)
- Designed for horizontal layout
  – 5-1/2" W x 4-1/3" H x 1-1/6" D
  – 11.5 oz.

Product Ordering

Description	Part No.
Room Comfort Controller	**RDY2000**
Remote Wall Mounted Temperature Sensor	**QAA2230.EWNN**
Remote Wall Mounted Temperature & Humidity Sensor	**QFA32SS.EWNN**
Duct Mounted Temperature Sensor	**QAM2030.010**
Wall Mounted CO_2 Sensor	**QPA2000**
Wall Mounted Temperature + Humidity + CO_2 Sensor	**QPA2062**
Outdoor Air Temperature Sensor	**QAC2030**
Surface Mount Pipe Temperature Sensor	**QAD2030**

RDG110U and RDG160TU Commercial Fan Coil Room Unit and Heat Pump Thermostats

RDG110U Commercial Fan Coil Room Unit and Heat Pump Thermostat

RDG160TU Commercial 3-speed Fan Coil Room Unit

Description

The RDG110U and RDG160TU Commercial Fan Coil Room Unit and Heat Pump Thermostats enable various control strategies including Comfort, Energy Saving, or Freeze Protection. A built-in temperature sensor or external room/return air temperature sensor enables room temperature control. Multifunctional inputs can be configured for keycard input, window contacts or external sensors.

The RDG160TU is a Commercial 3-speed Fan Coil Room Unit Thermostat that offers a 7-day program with 8 programmable timers to switch over between Comfort and Economy modes.

Features

- 2 multifunctional inputs, configurable for:
  - Operating mode switchover contact (keycard, window contact, and so on)
  - Sensor for automatic heating/cooling mode changeover
  - External room temperature or return air temperature sensor
  - Supply air temperature sensor (RDG160TU)
  - Dew point sensor
  - Electric heater enable
  - Fault sensing
- 1 digital input, configurable for:
  - Operating mode switchover contact (keycard, window contact, and so on)
  - Sensor for automatic heating/cooling mode changeover
  - Dew point switch
  - Electric heater enable
  - Fault sensing
- Configurable relay function (RDG160TU)
  - Disables external equipment during Protection mode
  - Enables external equipment (for example, pump) during H/C demand
  - Output H/C sequence
- Automatic or manual heating and cooling mode changeover
- SPDT relays for valves and SPST relays for 1- to 3-speed fans (RDG110U)
- Modulating or digital outputs for modulating valves, ECM fans, or 1- to 3-speed fans (RDG160TU)
- Purge function when used with 2-port valve in 2-pipe H/C changeover system
- Simple application configuration using DIP switches
- Minimum and maximum supply air temperature limits (RDG160TU)
- Floor heating temperature limit
- Easy operation mode selection with interactive controls
- Filter reminder
- Backlit display with intuitive layout simplifies user interaction during commissioning and daily operation

Applications

The very versatile, wall-mounted RDG110U and RDG160TU Commercial Fan Coil Room Unit and Heat Pump Thermostats are for low voltage, stand-alone applications, such as in hospitality, dormitory or light commercial facilities.

- 2 pipe Fan Coil with electric heater or radiator
- 4 pipe Fan Coil
- Chilled / heated ceiling with heater or radiator
- Simple DX heat or cool

Specifications

Power Supply

Operating Voltage ..... 24 Vac/24 Vdc, Class 2

Frequency ..... 50/60 Hz

Power Consumption Including Connected Field Devices .... Max. 2 VA

Multifunctional Inputs

X1-M/X2-M

Temperature Sensor Input Type ..... NTC 3K Ω at 77°F (25°C)
(Recommended Temperature Sensor: QAH11.1)
Temperature Range ..... 32° to 120°F (0° to 49°C)
Cable Length ..... Maximum 262 feet (80m)

Digital Input

Operating Action ..... Selectable (NO/NC)
Contact Sensing ..... DC 0 to 5V, Maximum 5 mA

D1-GND

Operating action ..... Selectable (NO/NC)
Contact sensing ..... DC 6 to 15V, 3 to 6 mA

Function Input ..... External Temperature Sensor, Changeover Sensor, Mode Switch Contact, Dew Point Contact, Electric Heater Enable, Fault Contact

Outputs

RDG110U

Fan Control Q1, Q2, Q3-G0 ..... 24 Vac
Current Min., Max. Resistive or Inductive ..... AC 5 mA to 5A (4A)
Control Output ..... 24 Vac
Y11-G0/Y21-G0 ..... AC 5 mA to 5A (3A)

RDG160TU

Q1/Q2/Q3/G-G0 (relay) ..... 24 Vac Class 2
Use as 3-speed fan control
Rating Min., Max. Resistive or Inductive ..... 5 mA to 5A (4A)

Use as actuator control (Q1, Q2)
Q1 Rating Min., Max. Resistive or Inductive ..... 5 mA to 1A
Q2 Rating Min., Max. Resistive or Inductive ..... 5 mA to 5A (4A)
Max. Total Load Current Q1 + Q2 + Q3 ..... 5A

Use as External Load Control (Q1, Q2, Q3)
Rating Min., Max. Resistive Or Inductive Each ..... 5 mA to 1A

ECM Fan Control Y50 – G0 Max. ..... DC 0 to 10V ± 5 mA
Actuator Control Y10-G0/Y20-G0 (G) ..... DC 0 to 10V ± 1 mA

Operational Data

Switching Differential, Adjustable

Heating Mode ..... 4°F (2°C); 1° to 12°F (0.5° to 6°C)
Cooling Mode ..... 2°F (1°C); 1° to 12°F (0.5° to 6°C)

Setpoint Setting and Range

Comfort Mode ..... 70°F (21°C); 41° to 104°F (5° to 40°C)
Energy Saving Mode ..... 59°F (15°C) or 86°F (30°C) OFF; 41° to 104°F (5° to 40°C)
Protection ..... 46°F (8°C) OFF; 41° to 104°F (5° to 40°C)

Multifunctional Inputs X1/X2/D1 ..... Selectable
Input X1 ..... External Temperature Sensor
Input X2 ..... Changeover Sensor
Input D1 ..... Operating Mode Switchover

Built-in Room Temperature Sensor

Measuring Range ..... 32° to 120°F (0° to 49°C)
Accuracy at 77°F (25°C) ..... < ± 1°F (0.5°C)
Temperature Calibration Range ..... ± 6°F (3°C)

Settings and Display Resolution

Setpoints ..... 1°F (0.5°C)
Current Temperature Value Displayed ..... 1°F (0.5°C)

Operation

Climatic conditions ..... Class 3K5

Temperature ..... 32° to 122°F (0° to 50°C)

Humidity ..... < 95% rh

Connection Terminals ..... 1 x 14 Gauge (1 x 0.4 through 2.5 mm^2) or 2 x 16 Gauge (2 x 0.4 through 1.5 mm^2)

Housing Front Color ..... RAL 9003 White

Weight ..... 0.77 lb (0.350 kg)

Agency Standards

EU Conformity (CE) CEIT3181XX

RCM Conformity ..... CEIT3181en_CI

UL Listing ..... UL 916 PAZX

cUL ..... CSA-C22.2 No. 205 PAZX7

Federal Communications Commission ..... Complies with the Limits for a Class B Digital Device, Pursuant to Part 15 of the FCC Rules

Safety Class ..... III as per EN 60529

Degree of Protection Housing ..... IP30 as per EN 60529

Pollution Class ..... Normal

Product Ordering

Description	Part No.
24V Wall-mounted Thermostat Fan Coil Unit and Heat Pump	**RDG110U**
24V Wall-mounted Thermostat Fan Coil Unit, 3-speed/ECM Fan	**RDG160TU**

RDG400 Commercial VAV Thermostat

RDG400 Commercial VAV Thermostat

Description

Siemens RDG400 is a versatile single-duct VAV Thermostat Controller for low voltage stand-alone applications such as in hospitality, dormitory or light commercial applications.

Multifunctional inputs can be configured for keycard input, window contacts or external sensors. Select from various control strategies including Comfort, Energy Saving, or Freeze Protection. A backlit display with intuitive layout simplifies user interaction during commissioning and daily operation.

Siemens also offers a broad selection of sensors and actuators that comprise cost-efficient application bundles that are compatible with the RDG400.

Features

- Room temperature control using built-in temperature sensor or external room temperature/return air temperature sensor
- Three multifunctional inputs, configurable for:
  - Operating mode switchover contact (keycard, window contact, and so on)
  - Sensor for automatic heating/cooling mode changeover
  - External room temperature or return air temperature sensor
  - Dew point sensor
  - Fault sensing
- Automatic or manual heating and cooling mode changeover
- Supports electric heater
- Simple application configuration using DIP switches
- Minimum and maximum setpoint limitation
- Floor heating temperature limit
- Easy operation mode selection with intuitive controls
- Button lock (automatic or manual)

Applications

Commercial VAV applications include single-duct; single-duct with auxiliary heater; single-duct and radiator/floor heating; and single-duct heating and cooling coil.

- Single-duct:
  DC 0 to 10V damper actuator; 3-position damper actuator
- Single-duct with auxiliary heater:
  DC 0 to 10V damper actuator and ON/OFF, PWM or 3-position auxiliary heater, 3-position damper actuator and DC 0 to 10V auxiliary heater
- Single-duct and radiator/floor heating:
  DC 0 to 10V damper actuator and ON/OFF, PWM or 3-position radiator, 3-position damper actuator, and DC 0 to 10V radiator
- Single-duct heating and cooling coil:
  DC 0 to 10V damper actuator and ON/OFF, PWM or 3-position heating and cooling, 3-position damper actuator, and DC 0 to 10V heating and cooling

Specifications

Power Supply

Operating Voltage ..... 24 Vac/24 Vdc, Class 2

Frequency ..... 50/60 Hz

Power Consumption Including Connected Field Devices .... Max. 2 VA

Multifunctional Inputs

X1-M/X2-M

Temperature Sensor Input Type ..... NTC 3K Ω at 77°F (25°C)
(Recommended Temperature Sensor: QAH11.1)
Temperature Range ..... 32° to 120°F (0° to 49°C)
Cable Length ..... Maximum 262 feet (80m)

Digital Input
Operating Action ..... Selectable (NO/NC)
Contact Sensing ..... DC 0 to 5V, Maximum 5 mA

D1-GND
Operating action ..... Selectable (NO/NC)
Contact sensing ..... DC 6 to 15V, 3 to 6 mA

Function Input ..... External Temperature Sensor, Changeover Sensor, Mode Switch Contact, Dew Point Contact, Electric Heater Enable, Fault Contact

Outputs

Control Output Y10-G0 ..... DC 0 to 10V
Resolution ..... 39 mV
Current ..... Maximum ± 1 mA

Control Y1, Y2-G ..... 24 Vac
Rating ..... 15 mA to 1A

Operational Data

Switching Differential, Adjustable
Heating Mode ..... 6°F (2°C); 1° to 12°F (0.5° to 6°C)
Cooling Mode ..... 2°F (1°C); 1° to 12°F (0.5° to 6°C)

Setpoint Setting and Range
Comfort Mode ..... 70°F (21°C); 41° to 104°F (5° to 40°C)
Energy Saving Mode ..... 59°F (15°C) or 86°F (30°C) OFF; 41° to 104°F (5° to 40°C)
Protection ..... 46°F (8°C)

Multifunctional Inputs X1/X2/D1 ..... Selectable
Input X1 ..... External Temperature Sensor
Input X2 ..... Changeover Sensor
Input D1 ..... Operating Mode Switchover

Built-in Room Temperature Sensor
Measuring Range ..... 32° to 120°F (0° to 49°C)
Accuracy at 77°F (25°C) ..... < ± 1°F (0.5°C)
Temperature Calibration Range ..... ± 6°F (3°C)

Settings and Display Resolution
Setpoints ..... 1°F (0.5°C)
Current Temperature Value Displayed ..... 1°F (0.5°C)

Operation

Climatic Conditions ..... Class 3K5

Temperature ..... 32° to 122°F (0° to 50°C)

Humidity ..... < 95% rh

Connection Terminals ..... 1 × 14 Gauge (1 × 0.4 through 2.5 mm^2) or 2 × 16 Gauge (2 × 0.4 through 1.5 mm^2)

Housing Front Color ..... RAL 9003 White

Weight ..... 0.77 lb (0.350 kg)

Agency Standards

EU Conformity (CE) CEIT3181XX

RCM Conformity ..... CEIT3181en_CI

UL Listing ..... UL 916 PAZX

cUL ..... CSA-C22.2 No. 205 PAZX7

Federal Communications Commission ..... Complies with the Limits for a Class B Digital Device, Pursuant to Part 15 of the FCC Rules

Safety Class ..... III as per EN 60529

Degree of Protection Housing ..... IP30 as per EN 60529

Pollution Class ..... Normal

Product Ordering

Description	Part No.
24V Thermostat VAV/CAV	**RDG400**

Electric Surface Mounted/ High Temperature Limit Control Thermostats

141-0522 Electric Surface Mounted Thermostat

141-0530 Electric High Temperature Limit Control Thermostat

Description

The 141 Electric Surface Mounted / High Temperature Limit Control Thermostats are single setpoint electric thermostats for high or low limit control; surface mounted or duct mounted models available.

Features

Electric Surface Mounted Thermostat

- Can be mounted horizontally, vertically or at an angle
- Visual setpoint indication through cover

Electric High Temperature Limit Control Thermostat

- Liquid-filled, rigid bulb sensing unit
- Adjustable high temperature limit stop
- Manual reset to close contacts

Applications

Surface Mounted Thermostat

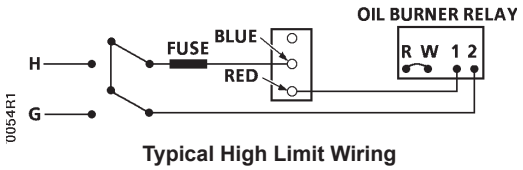
The 141 Surface Mounted Thermostat is ideal as a low or high limit control on unit heaters. Also can be used as a convector or fan coil changeover control for automatically selecting the heating or cooling function based on water temperature.

High Temperature Thermostat

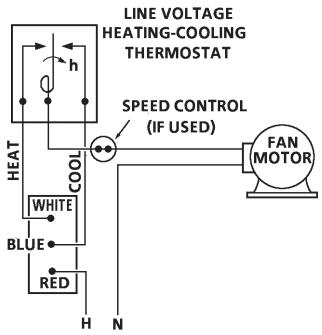
The 141 Electric High Temperature Thermostat is normally located in a duct system and wired to shut down air conditioning or ventilating fans when the air temperature exceeds 125°F (52°C), which would occur during a fire.

This thermostat can also be used as a high limit control for a warm air system when a “lockout” type control is desired or required by code.

Typical Connections



Typical High Limit Wiring



Typical Changeover Wiring

Siemens offers a 5-year warranty on thermostats.

Specifications

Surface Mounted Thermostat

Setpoint Range ..... 50° to 150°F (10° to 65°C)

Maximum Bulb Temperature ..... 240°F (116°C)

Switch Action ..... SPDT

Electrical Ratings

Motor Rating ..... 7.4 FLA @ 120 Vac
3.7 FLA @ 240 Vac

Locked Rotor ..... 44.5 A @ 120 Vac
22.2 A @ 240 Vac

Cover Finish ..... Gray Baked Enamel

Dimensions ..... 2.30" W x 5.38" H x 1.84" D
(58 mm W x 173 mm H x 47 mm D)

Shipping Weight ..... 2.0 lb. (0.9 kg)

High Temperature Thermostat

Setpoint Range ..... 25° to 215°F (-4° to 102°C)

Switch Action ..... SPST, open-on-rise

Factory Temperature Setting ..... 125°F (52°C)

Electrical Ratings

Motor Rating ..... 10 FLA @ 120 Vac
6 FLA @ 240 Vac

Noninductive Rating ..... 1 A @ 0.3 to 12 Vac
6 A @ 12-50 Vac

Agency Approvals ..... UL MP3487
CSA LR6246

Cover Finish ..... Gray Baked Enamel

Dimensions ..... 2.94" W x 5.38" H x 2.5" D
(59 mm W x 136 mm H x 64 mm D)

Shipping Weight ..... 1.8 lb. (0.82 kg)

Product Ordering

Description	Part No.
Surface Mounted	**141-0522**
High Temperature Limit Duct Mount	**141-0530**

Electric Line Voltage Remote Bulb Thermostats

141 Electric Line Voltage Remote Bulb Thermostat

Description

The 141 Electric Line Voltage Remote Bulb Thermostat is a two-position electric line voltage thermostat with remote bulb.

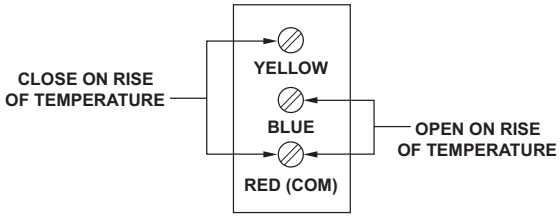
Features

- Temperature sensitive, liquid-filled sensing element
- Single-pole, double-throw snap-acting switches
- Enclosed switches suitable for low or line voltage power switching
- Gray baked enamel case

Applications

The 141 Electric Line Voltage Remote Bulb Thermostat is used for temperature control in heating and cooling application, typically to directly operate two-position damper motor actuators, motor actuated valves, relays and similar equipment. Typical applications include summer-winter change over and the direct control of liquid or air temperatures where two position (ON-OFF) control is acceptable.

Typical Connections



Specifications

Inductive Amps
- Full Load Amps
  - 120 Vac....7.4
  - 240 Vac....3.7
- Locked Rotor Amps
  - 120 Vac....44.5
  - 240 Vac....22.2

Resistive Amps
- 120 Vac....25
- 240 Vac....20

Dimensions .... 2.5" W x 5.38" H x 2.31" D (64 mm x 136 mm x 59 mm)

Shipping Weight ....1.8 lb. (0.82 kg)

Product Ordering

Temperature Scale Range	Max. Bulb Temp.	Bulb Size	Switch Differential	Part No.
50° to 130°F (10° to 55°C)	130°F (54°C)	.038" Diameter x 4.03" L (9.9 mm Diameter x 102 mm L) Capillary 6' (183 cm)	Adjustable 6° to 30°F (3° to 16°C)	**141-0520**
100° to 240°F (38° to 110°C)	250°F (121°C)	.029" Diameter x 2.33" L (7.4 mm Diameter x 59.2 mm L) Capillary 6' (183 cm)	Adjustable 7° to 45°F (14° to 25°C)	**141-0521**

Electric Low Temperature Detection Thermostats

134 Electric Low Temperature Detection Thermostat

Description

The 134 Electric Low Temperature Detection Thermostat is a remote bulb instrument with a Single Pole, Double Throw switch. Any one foot of the capillary element actuates the thermostat switch, making this control ideal for the protection of large coils where air stratification could cause localized freezing conditions.

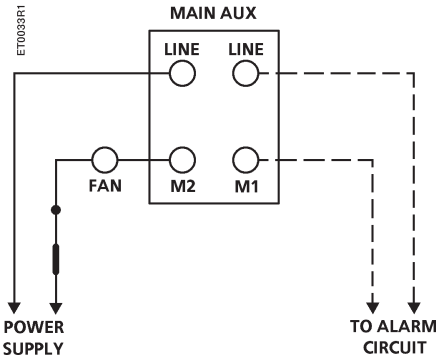
Features

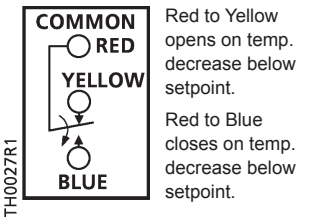
- Compact and durable construction
- Adjustable concealed, low and high range limit stops with a fixed differential
- Available with manual or automatic reset
- Electroplated copper capillary tube for sensitivity and durability
- Switches 120 V or 20 Vac
- Universal mounting bracket included

Applications

The 134 Electric Low Temperature Detection Thermostats are ideally suited for detecting potential freeze-up conditions of heating coils, cooling coils, liquid heating pipes, and similar applications.

Typical Connections

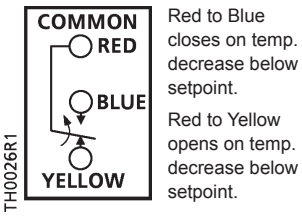




Red to Yellow opens on temp. decrease below setpoint.

Red to Blue closes on temp. decrease below setpoint.

OPEN ON RISE



Red to Blue closes on temp. decrease below setpoint.

Red to Yellow opens on temp. decrease below setpoint.

CLOSE ON RISE

Siemens offers a 5-year warranty on thermostats.

Specifications

Part No. 134-1504

Dimensions ..... 4" W x 3.25" H x 2.5" D
(102 mm W x 83 mm H x 65 mm D)

Shipping Weight .....2.4 lb. (1.1 kg)

Part No. 134-1510

Dimensions ..... 2.31" W x 3.19" H x 2.31" D
(59 mm W x 81 mm H x 59 mm D)

Shipping Weight .....1.8 lb. (0.8 kg)

Part No. 134-1511

Dimensions ..... 2.31" W x 3.19" H x 2.31" D
(59 mm W x 81 mm H x 59 mm D)

Shipping Weight .....1.8 lb. (0.8 kg)

Product Ordering

Temperature Range	Switch Action	Bulb Size	Reset Action	Part No.
15° to 55°F (-9.4° to 12.8°C)	DPST, 4-wire 2 Circuit	1/8" x 20' (3 mm x 6 m)	Manual	**134-1504**
35° to 45°F (1.7° to 7.2°C)	SPDT	1/8" x 20' (3 mm x 6 m)	Automatic	**134-1510**
35° to 45°F (1.7° to 7.2°C)	SPDT	1/8" x 20' (3 mm x 6 m)	Manual	**134-1511**

Electric Line Voltage Room Thermostats Heating/Cooling

134 Electric Line Voltage Room Thermostat – Heating/Cooling

Description

The 134 Electric Line Voltage Room Thermostat is a line voltage On/Off room thermostat for heating and cooling applications.

Models are available with SPST or SPDT contact action and for standard, nominal 1/4 hp / 10 amps noninductive, or heavy-duty, nominal 1 hp / 22 amps noninductive applications.

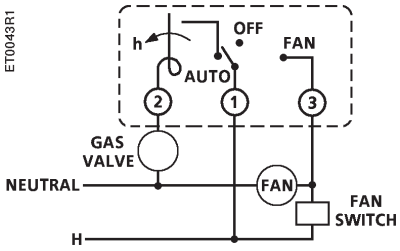
Features

- Single setpoint dial
- Exposed bimetal thermometer
- Temperature range from 50° to 90°F (10° to 30°C)
- High and low limit stops
- Standard or heavy-duty models
- Dual Fahrenheit/Celsius scale plate

Applications

The 134 Electric Line Voltage Room Thermostat controls heating and cooling applications or year-round air conditioning units in commercial, industrial, or residential installations.

Typical Connections



Specifications

Part No. 134-1084

Motor Rating
120 Vac ..... 6.0 A
240 Vac ..... 3.0 A

Resistive Rating
120 Vac ..... 10.0 amps
240 Vac ..... 10.0 amps

Switch Action ..... SPDT

Dimensions ..... 3" W x 4.75" H x 1.44" D
(75 mm W x 120 mm H x 36 mm D)

Shipping Weight ..... 1.0 lb. (0.6 kg)

Part No. 134-1085

Motor Rating
120 Vac ..... 16.0 Heating/8.0 Cooling
240 Vac ..... 8.0 Heating/8.0 Cooling

Resistive Rating
120 Vac ..... 22.0 Heating
240 Vac ..... 22.0 Heating

Switch Action ..... SPDT

Dimensions ..... 3" W x 4.75" H x 1.44" D
(75 mm W x 120 mm H x 36 mm D)

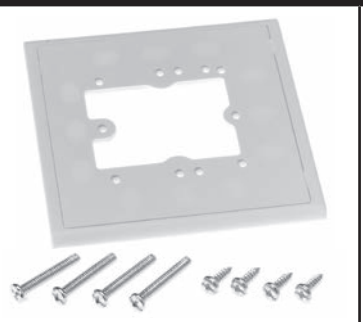
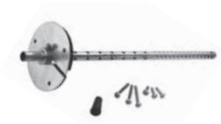
Shipping Weight ..... 1.0 lb. (0.6 kg)

Product Ordering

Switch Action	Temp. Set Point Range	Temp. Set Point Adjustment	Temperature Difference	Part No.
SPDT	40° to 90°F (5° to 30°C)	Exposed Knob or Concealed[1]	1.8°F (1°C) Heating 2.31°F (1.3°C) Cooling	**134-1084**
SPDT	40° to 90°F (5° to 30°C)	Exposed Knob or Concealed[1]	3°F (1.7°C) Heating 3.5°F (2°C) Cooling	**134-1085**

Ordering Notes:
1. Each thermostat is shipped with a blank faceplate for use when concealed adjustment is desired.

Table of Contents

	Description	Product Group	Quantity	Part No.
RDY				
	**Mounting Plate**	RDY2000 & RDY2000BN	1	**ARG70**
141 & 134				
	**Remote Bulb Duct Mounting Kit**	141 & 134	1	**808-517**
	**Coil Clip**	141	1	**356-115**
	**Capillary Clip**	141 & 134	Box of 100	**7421700060**
	**Well** For 141-0521. 2-3/8" (60 mm)	141	1	**141-337**
	**Electric Thermostat Guard** For electric thermostats no larger than 5 1/4" H x 3/4" W x 2" D. (133 mm H x 19 mm W x 51 mm D). Made of cast aluminum. Allen Key included.	134	1	**134-117**