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SIEMENS

RDY2000 Room Comfort Controller

NEW!

RDY2000 Room Comfort Controller.

Description

The Siemens Series RDY2000 Room Comfort Controller is designed for light commercial HVAC systems that utilize 24VAC control circuitry. It is compatable 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
    *   CO2 sensor
    *   Occupancy sensor

Thermostats

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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
    - CO_2 level vs. set point*
    - 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

General Features

- Sleek, unobtrusive design with backlit 5" LCD resistive touch screen

- Separable backplate with wiring terminals and mouning 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.

*Requires purchase of external sensor

.

RDY2000 Product Ordering

Description	Part No.
Room Comfort Controller	**RDY2000**

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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
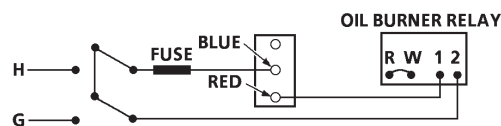
Surface Mounted Thermostat

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.
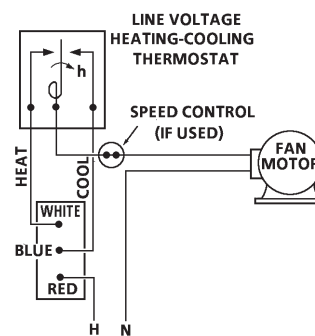
Typical Changeover Wiring.

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141 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)

141 Product Ordering

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

Thermostats

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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 includes summer-winter change over and the direct control of liquid or air temperatures where two position (ON-OFF) control is acceptable.

Typical Connections

CLOSE ON RISE OF TEMPERATURE

YELLOW

BLUE

OPEN ON RISE OF TEMPERATURE

RED (COM)
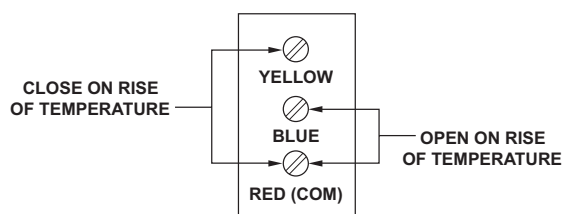
Thermostats

141 Electric Line Voltage Remote Bulb Thermostat 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)

141 Electric Line Voltage Remote Bulb Thermostat 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**

Accessories & Service Kits

Thermostats

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Electric Low Temperature Detection Thermostats

134 Electric Low Temperature Detection Thermostat.

Thermostats

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
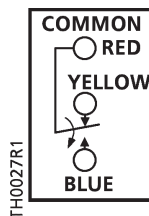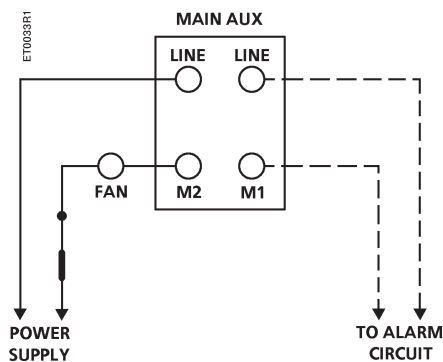
Red to Yellow opens on temp. decrease below set point.

Red to Blue closes on temp. decrease below set point.
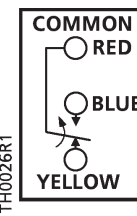
OPEN ON RISE

Red to Blue closes on temp. decrease below set point.

Red to Yellow opens on temp. decrease below set point.

CLOSE ON RISE

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134 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)

134 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**

Accessories & Service Kits

Thermostats

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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
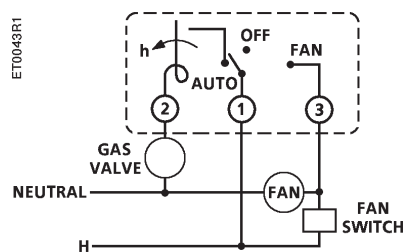
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Thermostats

134 Electric Line Voltage Room Thermostat Specifications

Part No. 134-1083

Motor Rating
120 Vac ....6.0 A
240 Vac ....3.7 A

Switch Action ....SPST with "Auto-Off-Fan" switch

Dimensions .... 2.78" W x 5.19" H x 1.88" D
(71 mm W x 132 mm H x 48 mm D)

Shipping Weight ....1.3 lbs. (0.6 kg)

Part No. 134-1086

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

Switch Action .... SPST

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

Shipping Weight .... 1.3 lb. (0.6 kg)

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)

134 Electric Line Voltage Room Thermostat Product Ordering

Switch Action	Temp. Set Point Range	Temp. Set Point Adjustment	Temperature Difference	Part No.
SPST	40 to 90°F (5 to 30°C)	Concealed	1.8°F (1°C)	**134-1083**
SPST	40 to 90°F (5 to 30°C)	Concealed	1.8°F (1°C)	**134-1086**
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 Note

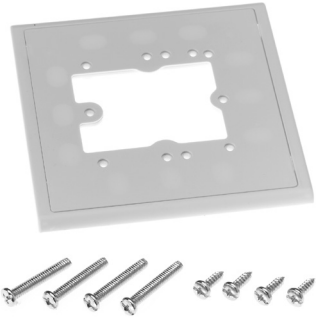1. Each thermostat is shipped with a blank faceplate for use when concealed adjustment is desired.

Accessories & Service Kits   **D-13**

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Thermostats

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Thermostats

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Thermostats

	Description	Product Group	Quantity	Part No.
RDY2000				
	Mounting Plate.	All models	1	**ARG70**

	Description	Product Group	Quantity	Part No.
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**
	Concealed Adjustment Faceplate.	134	1	**134-034**

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Notes

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