

SIEMENS

Thermostats, Networked Thermostats, Commercial Standalone Thermostats, Line Voltage Control Quick Reference Guide



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SIEMENS Networked Thermostats

RDS120-B Smart Thermostat

Features

- BACnet over IP Certified
- Controls conventional HVAC systems up to 3H/2C and heat pumps up to 4H/2C
- Easy-to-read, backlit, auto-dimming 3.5" color LCD touch
- Intuitive remote user control using Apple iOS and Android mobile phone applications
- One-touch green leaf button to maximize energy efficiency
- Built-in Volatile Organic Compounds (VOC) sensor enables ventilation strategies for optimum indoor air quality



Applications

The RDS 120-B is a BACnet/IP Smart Thermostat designed for use in light commercial and managed residential applications including dormitories, multi-use space and residential systems. This 24 Vac device provides control for conventional HVAC systems with up to three heating stages and two cooling stages or heat pumps with up to two compressors and two stages of auxiliary heat.

[Click on this link for RDS120-B Documents](#)

RDS120 Smart Thermostat

Features

- Controls conventional HVAC systems up to 3H/2C and heat pumps up to 4H/2C
- Easy to read, backlit, auto-dimming 3.5" color LCD touch
- Intuitive remote user control using Apple iOS and Android mobile phone applications
- One-touch green leaf button to maximize energy efficiency
- Built-in Volatile Organic Compounds (VOC) sensor enables ventilation strategies for optimum indoor air quality



Applications

The RDS120 is designed to control Heat Pump or Conventional HVAC heating and cooling applications. Targeting the Multi-Use and Managed Residential spaces. It can control up to three stages of heating and two stages of cooling in conventional systems and up to two compressors and two stages of auxiliary heat in heat pump systems.

[Click on this link for RDS120 Documents](#)

RDY2000BN BACnet Commercial RTU Thermostat

Features

- Built-in flexible control programs for conventional and heat pump applications
- BACnet Schedule Support
- On-board temperature and humidity sensor
- Controls heat pumps with 1 or 2 compressors and up to 2-stage auxiliary heat

Applications

The RDY2000BN is a BACnet MSTP enabled highly flexible and versatile device supporting multi-stage conventional, RTU and heat pump applications. Multiple, configurable inputs and outputs support flexible sensing schemes and types of sensors like CO2, occupancy and output relays for economizer and humidity control. Built in IAQ applications and humidity control ensure occupant comfort with simple configurations. Simple and intuitive Wizard makes start up configuration a snap.



Also offered with no logo. (RDY2000BN/NL).

[Click on this link for RDY2000BN Documents](#)

SIEMENS Commercial Standalone Thermostats

RDY2000 Thermostat

Features

- Compatible with conventional and heat pump applications
- Controls conventional systems with up to 3 stages of heating and 3 stages of cooling
- On-board temperature and humidity sensors with 7-day programmability.
- Programmable fan enables fresh air circulation when not in heating/cooling mode
- Selectable lockout levels to minimize tampering with setpoints and schedule



Applications

The Siemens Series RDY2000 Commercial Room Thermostat 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 three stages of heating and three stages of cooling in a conventional system and heat pumps systems with up to two compressors and two stages of auxiliary heat. It can interface with remote sensors and devices to completely manage all aspects of room comfort, including temperature, humidity, and air quality.

[Click on this link for RDY2000 Documents](#)

RDG110U Thermostat

Features

- Dual room temperature control using built-in temperature sensor or external room/return air temperature sensor
- Automatic or manual heating and cooling mode changeover
- Simple application configuration using DIP switches
- SPDT relays for valves, and SPST relays for 1-to-3-speed fans
- Floor heating temperature limit



Applications

Siemens RDG110U is a versatile wall-mounted thermostat for low voltage, stand-alone applications such as in hospitality, dormitory or light commercial applications. Multi-functional inputs can be configured for keycard input, window contacts or external sensors. Designed for commercial applications based on Siemens' vast controls expertise.

[Click on this link for RDG110U Documents](#)

RDG160TU Thermostat

Features

- Modulating or digital outputs for modulating valves, ECM fans, or 1- to 3-speed fans
- Configurable relay function
- 7-day programmability. Min and max supply air temperature limits
- 2 multi-function inputs, configurable for supply air temperature sensor
- Easy operation mode selection with interactive controls



Applications

Siemens RDG160TU is a versatile wall-mounted thermostat for low voltage, stand-alone applications such as hospitality, dormitory or light commercial applications. Multi-functional inputs can be configured for keycard input, window contacts or external sensors. Designed for commercial applications based on Siemens' vast controls expertise.

[Click on this link for RDG160TU Documents](#)

RAA20U-RAA20UW Thermostat

Features

- Two-point control algorithm (on-off)
- 24 to 120 Vac, 277 Vac operating voltage
- Two mounting styles: electrical wall box or drywall
- Wall plate adapter included with electrical wall box mount styles
- Dual setpoint temperature scale or tamperproof (concealed) setpoint



Applications

The RAA series is a two-wire, gas diaphragm-based room thermostat for use in heating and/or cooling only (two-pipe) systems. RAA20UW includes both the RAA20U thermostat and the ARG70 wall plate as a kit. Perfect for simple controlled spaces for schools, public buildings, entry ways or temporary heat during construction. Heavy duty switch can power zone valves, burners, fans and pumps. Contains SPDT switch and rated to 3.5A FLA.

[Click on this link for RAA20U/UW Documents](#)

RDG400 Thermostat

Features

- Automatic or manual heating and cooling mode changeover
- Supports electric heater
- Simple application configuration using DIP switches
- Minimum and maximum setpoint limitation
- Easy operation mode selection with interactive controls



Applications

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

[Click on this link for RDG400 Documents](#)

Legacy Commercial Thermostats

Features

- Built-in temperature sensor
- Automatic or manual changeover selection
- Operating mode changeover input for remote control
- Selectable installation and control parameters
- Control depending on room or remote air temperature
- Optional selectable direct acting or reverse acting output



Applications

The RCU microprocessor-controlled CAV room controller is designed for air only, or air and water heating and/or cooling systems. Controllers have proportional integral response.

The RDX series room controllers are designed for heating and cooling systems, including heat pumps.

The RDU Thermostats are great for a wide range of spaces with stand-alone heating or cooling control. They also handle control needs in large facilities, for spaces, for spaces controlled independently of the building automation system. A typical application might be constant air velocity (CAV) control (0 to 10 Vdc) in a commercial or light industrial building. An RDU Thermostat can control valves or dampers – or combinations of dampers and actuators on one output.

[Click on this link for RCU Series Documents](#)

[Click on this link for RDX Series Documents](#)

[Click on this link for RDU Series Documents](#)

POWERS™ CONTROLS Mechanical Line Voltage Thermostats

Room Temperature Line Voltage Mechanical Thermostats

Features

- Single set point dial
- Exposed bimetal thermometer
- Temp. range from 50-90°F (10 -30°C)
- High and low limit stops
- Dual Fahrenheit/Celsius scale plate
- UL/CSA approved



Applications

The 134 series Line Voltage Room Thermostat is an "On/Off" room thermostat used in heating and cooling applications. These units control heating and cooling HVAC equipment or year-round air conditioning units in commercial or residential installations. Thermostats are available with either SPST or SPDT contact action rated with motor ratings up to 8A FLA @ 240 Vac.

[Click on this link for Room Temp Documents](#)

Low Temperature Detection Line Voltage Mechanical Thermostats

Features

- Compact and durable construction
- Low temperature ranges suited for operation around freezing temperatures
- Manual or automatic reset models
- SPDT or DPST models
- UL/CSA approved



Applications

The 134 series remote bulb thermostats are ideally suited for detecting potential freeze-up conditions of heating coils, cooling coils, liquid heating pipes and similar applications.

The Low Temp Detection Cut-out & Alarm Thermostat has a DPST main switch used to stop the supply fan motor when temp at the sensing element falls below the set point. Aux switch provides alarm. The main contacts have motor ratings to 8A @ 240 Vac.

[Click on this link for Low Temp Detect Documents](#)

The Low Temperature Detection Thermostat is a remote bulb instrument with a SPDT switch that closes and opens a circuit in both directions. The switch is rated to 240 Vac at 8A FLA.

[Click on this link for Remote Bulb Documents](#)

Mid Temperature Range Line Voltage Mechanical Thermostats

Features

- Temperature sensitive, liquid-filled element
- SPDT snap-acting switches
- Temp. Range from 30 to 110°F (-1 to 43°C)
- Enclosed switches suitable for low or line voltage power switching
- UL/CSA approved



Applications

The 141 series Line Voltage Remote Bulb Thermostat is a two-position electric line voltage thermostat with remote bulb. This device has a SPDT switch with motor ratings to 8A FLA @ 240 Vac. This thermostat is used for control in heating and cooling applications. Typical applications include summer-winter change when two-position "On/Off" control is acceptable.

[Click on this link for Mid Temp Range Documents](#)

High Temperature Limit Control Line Voltage Mechanical Thermostats

Features

- Temp sensitive, liquid-filled element
- SPST or SPDT snap-acting switches
- Temperature Ranges to 240°F (110°C)
- Externally adjustable set point dial
- UL/CSA approved



Applications

These 141 series thermostats are typically used as high limit controls when a "lock-out" type control is desired or required by local specification or building code.

The Surface Mounted Thermostat provides a SPDT electrical switch and is designed especially for mounting on pipes.

[Click on this link for Surface Mount Documents](#)

The Duct Mount High Limit Control Thermostat has a rigid bulb, bi-metal and tube design. The thermostat is often wired to shut down A/C or ventilating fans when the duct air temp becomes excessive.

[Click on this link for Duct Mount Documents](#)

The Line Voltage Remote Bulb Thermostat is a two-position electric line voltage thermostat with remote bulb on a six foot long capillary having a SPDT switch with motor ratings to 8A @ 240 Vac.

[Click on this link for Remote Bulb Documents](#)

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