

RAB Series Room Thermostats

Product Numbers

Product Number	App-lication		Mounting Style		Control			Change-over		Scale	
	Two-pipe	Four-pipe	Electrical Wall Box	Drywall	Heating and Cooling	Heating or Cooling	Fan only	Manual	Automatic	Fahrenheit	Celsius
RAB10.1UW	•		•			•	•	•		•	•
RAB10.1U	•			•		•	•	•		•	•
RAB20UW	•		•			•			•	•	•
RAB20.1UW	•		•			•	•		•	•	•
RAB20U	•			•		•			•	•	•
RAB20.1U	•			•		•	•		•	•	•
RAB30.1UW		•	•		•		•	•		•	•
RAB30.1U		•		•	•		•	•		•	•

Accessories

- ARG70 Wall Plate Adapter

NOTE: An ARG70 Wall Plate Adapter must be used to meet UL and cUL requirements.

Features

- Manual, three-speed fan switch
- Fan release function
- Dual setpoint temperature scale
- 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 (ARG70) included with electrical wall box mounting styles
- Manual or automatic changeover switch

Description

Two-wire, gas diaphragm-based room thermostats for use in heating or cooling only and heating and/or cooling (two-pipe or four-pipe) systems.



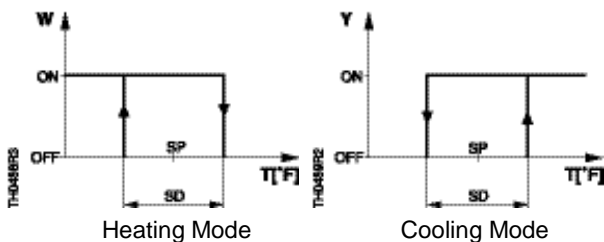
Technical Data

Operating voltage	24 to 120, 277 Vac
Frequency	50/60 Hz
Setpoint range	50°F to 85°F (10°C to 30°C)
Setpoint limit stops	Adjustable
Switching differential (SD)	≤1.8°F (1°C), fixed
Switch rating	6A RES, 3.5A FLA, 12A LRA
Switch action	Single-pole, Double-throw (SPDT)
Selector switch	Off/Low/Medium/High
Weight	5 oz. (0.14 kg)
Color	Ivory white (housing) Gray (selector knobs)
Ambient conditions	
Operating temp.	32°F to 122°F (0°C to 50°C)
Operating RH	<95%
Transportation temp.	-4°F to 122°F (-20°C to 50°C)
Transportation RH	<95%
Housing	
Material	Plastic
Enclosure rating	NEMA1
Bellows	Environmentally-friendly gas
Wiring	
Screw terminals	2 × 16 AWG or 1 × 14 AWG Minimum 20 AWG
Agency certification	Conforms to CE requirements UL listed to 873 (E35918) cUL listed to Canadian standard C22.2 No. 24-93

Typical Specifications

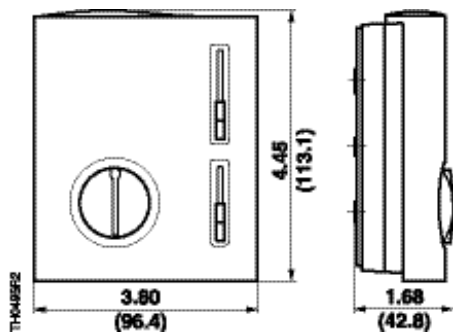
Thermostat shall provide control of room space for two or four pipe fan coil unit applications. Thermostat shall provide one control output sequence; two-position, on/off control output. When wired for heating only, switch contact shall break open on increase in temperature. When wired for cooling application, thermostat switch shall make contact on increase in temperature. Thermostat shall have a setpoint adjustment range of 50 to 85°F (10 to 30°C). The setpoint dial shall have a dual scale graduated in Fahrenheit and Celsius degrees. A fan selection switch will provide occupant control of three speed selections and includes an off position. Some models will provide a ventilation mode with fan running continuously regardless of load on thermostat. Switching differential is fixed at 1.8°F (1.0°C). Thermostat must conform to UL 873. Thermostat shall not contain any mercury or other environmentally unfriendly metals or gas. Thermostat shall employ a gas vapor sensing switch. Tamper resistant, upper and lower limit stops shall be settable in two-degree increments.

Operating Diagram



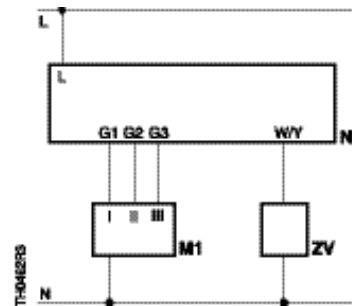
- | | |
|-------------------------------|-------------------------------|
| W Valve output signal heating | T Room temperature |
| SD Switching differential | Y Valve output signal cooling |
| SP Room temperature setpoint | |

Dimensions

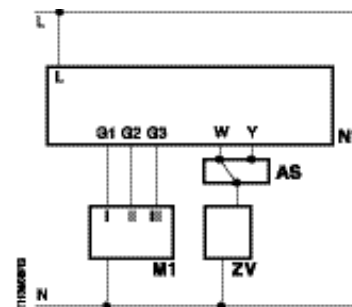


Wiring Diagrams

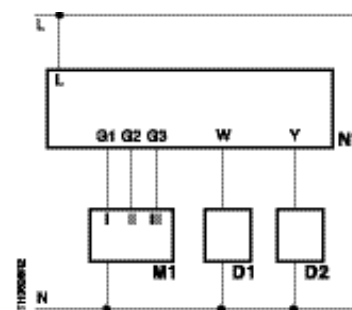
RAB10 Series



RAB20 Series



RAB30 Series



- | | |
|----------------------------|---------------------------------|
| AS Aqua sensor (by others) | G1 Control output fan speed I |
| D1 Heating valve | G2 Control output fan speed II |
| D2 Cooling valve | G3 Control output fan speed III |
| L Operating voltage | W/Y Heating or cooling output |
| M1 Three-speed fan | W Heating control output |
| N Neutral | Y Cooling control output |
| N1 Room thermostat | ZV Zone valve |

Information in this publication is based on current specifications. The company reserves the right to make changes in specifications and models as design improvements are introduced. Other product or company names mentioned herein may be the trademarks of their respective owners © 2007 Siemens Industry, Inc.