



Room Thermostat

RAA20

Adjustable for heating only or cooling only

Two-position control
Switching voltage AC 24...250 V

Use

The RAA20 room thermostat is used in heating only or cooling only systems to maintain the selected room temperature.

Typical use:

- Residential buildings
- Light industrial buildings

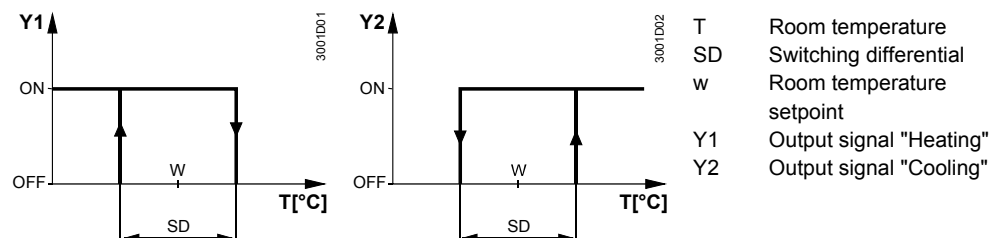
In conjunction with

- zone valves, thermal valves
- gas or oil burners
- fans
- pumps

Functions

The RAA20 room thermostat has separate outputs for heating only and cooling only. If the room temperature falls below the selected setpoint, the heating contact will close. If the room temperature exceeds the selected setpoint, the cooling contact will close.

Function diagrams



Equipment combinations

Type of unit	Type reference	Data sheet
Motoric on/off actuator	SFA21...	4863
Thermal actuator (for radiator valve)	STA21...	4893
Thermal actuator (for small valve 2,5 mm)	STP21...	4878

Accessories

Description	Type reference
Adapter plate 120 x 120 mm for 4" x 4" conduit boxes	ARG70
Adapter plate 96 x 120 mm for 2" x 4" conduit boxes	ARG70.1
Adapter plate for surface wiring 112x130 mm	ARG70.2

Technical design

Key features of the RAA20 room thermostat:

- Two-position control
- Gas-filled diaphragm

Adjustments

The required temperature is selected by a setpoint adjuster on the front of the thermostat.

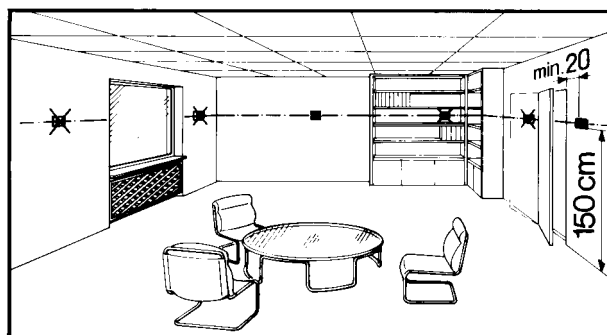
The setpoint setting range can be mechanically limited by means of setpoint limiter under the unit cover.

Notes

Mounting, installation and commissioning

The room thermostat should be located where the air temperature can be sensed as accurately as possible, without getting adversely affected by direct solar radiation or other heat or refrigeration sources.

Mounting height is about 1.5 m above the floor.



The unit can be fitted to most commercially available recessed conduit boxes or directly on the wall.

Only authorised personnel may open the unit to perform service. **(Caution: AC 250 V)**
 The unit must be isolated from the mains supply before opening.



When installing the unit, fix the baseplate first, then hook on the thermostat body and make the electrical connections. Then fit the cover and secure it (also refer to separate mounting instructions).

The thermostat must be mounted on a flat wall.

The local electrical regulations must be complied with.

If there are thermostatic radiator valves in the reference room, set them to their fully open position.

Maintenance




The room thermostat is maintenance-free.

Mechanical design

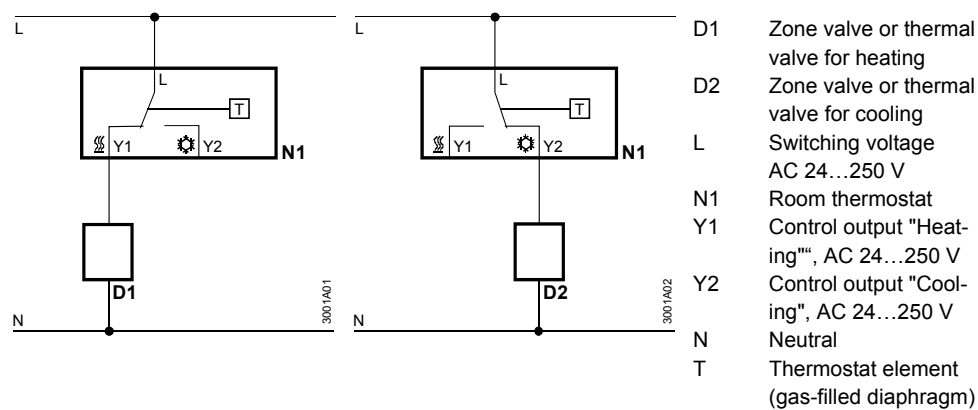
The diaphragm is filled with environmentally friendly gas.

The thermostat housing is made of plastic.

Technical data

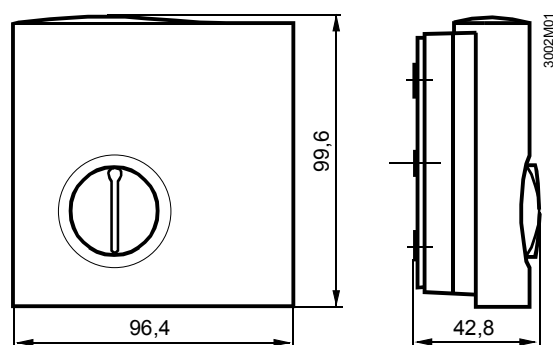
	Switching capacity	
	Voltage	AC 24...250 V
	Current	0.2...6 (2) A
	Frequency	50 or 60 Hz
Operational data	Switching differential SD	≤1K
	Setpoint setting range	8...30 °C
Environmental conditions	Operation	to IEC 721-3-3
	Climatic conditions	class 3K5
	Temperature	0...+50 °C
	Humidity	<95 % r.h.
	Pollution degree	normal, to EN 60730
	Transport / Storage	to IEC 721-3-2
	Climatic conditions	class 2K3/1K3
	Temperature	-20...+50 °C
	Humidity	<95 % r.h.
	Mechanical conditions	class 2M2
Norms and standards	Packaging	single packaging / min. order 20 pieces
	 conformity	
	Low voltage directive	73/23/EEC and 93/68/EEC
	Product standard	EN 60730
	 ^{N474} C-Tick conformity to	
	EMC emission standard	AS/NSZ 4251.1:1994
	Safety standard	II to EN 60730
	Degree of protection	IP30 to EN 60529
	Screw terminals for	2 x 1.5 mm ² or 1 x 2.5 mm ² min.(0.5 mm ²)
	Weight	0.14 kg
	Colour	white, NCS S 0502-G (RAL 9003)

Connection diagrams



Dimensions

Unit



Baseplate

