SIEMENS

3013

RAB 30

RAB30.1

Room Thermostats RAB30…

For four-pipe fan coils

Room thermostat with manual switch for heating or cooling
Two-position control
Manual three-speed fan switch
Switching voltage AC 250 V
Control output ON/OFF

Use

The room RAB30… thermostat is used in heating or cooling systems to maintain the selected room temperature.

Typical use:

- Commercial buildings
- Residential buildings
- Light industrial buildings

In conjunction with

– zone valves
– thermal valves
– fans

Functions

Heating If the room temperature falls below the selected setpoint, the heating contact will close.

Cooling If the room temperature exceeds the selected setpoint, the cooling contact will close.

Fan speed There are two possibilities to control the fan speed:

a) Manually by means of the three - speed fan switch on the thermostat for continuous operation
b) Automatically by switching to the selected fan speed via the thermostat for controlled operation. In that case – prior to commissioning – the jumper positions corresponding to the thermostat function must be selected. There are two choices of jumper positions available on printed circuit board:

SR1 **Selected fan speed as continuous operation**

SR2 Auto **Fan is switched at the same time as the cooling or heating valve, depending on the switch position.**

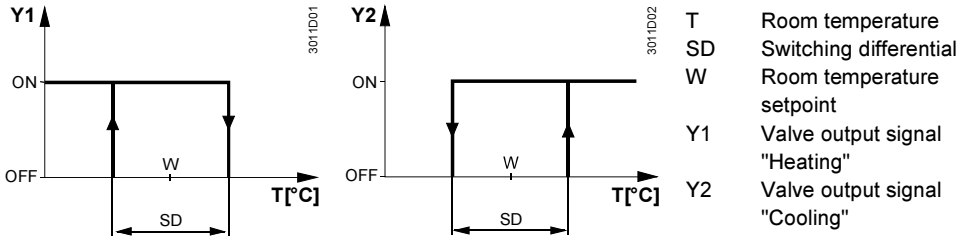
Ventilation

When the ventilation function is selected (RAB30.1) on the cover by setting the slide switch, the heating and cooling contacts are always open and the fan operates at the selected speed.

Changeover

Heating or cooling is selected with a switch located on the front of the thermostat.

Function diagrams



Type summary

Four-pipe fan coil room thermostat for use with 3-speed fan, manual changeover	**RAB30**
Four-pipe fan coil room thermostat for use with 3-speed fan, manual changeover and ventilation function	**RAB30.1**

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 RAB30... fan coil room thermostat:
- Two-position control
- Gas-filled diaphragm

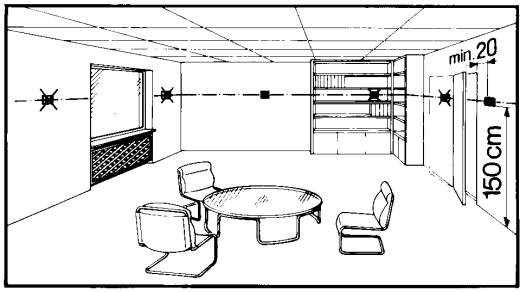
Adjustments

The required temperature can be selected by a setpoint adjuster on the front of thermostat.
The setpoint setting range can be mechanically limited by means of setpoint limiter under the cover.

Notes

Mounting, installation and commissioning

The 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: 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 seperate 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

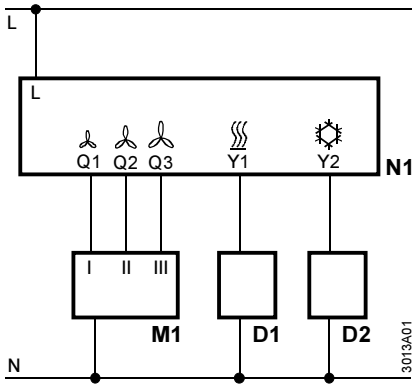
The gas bellows is filled with environmentally friendly gas.
The thermostat housing is made of plastic.

Technical data

⚠ Power supply	Switching capacity	
	Voltage	AC 250 V
	Current	0.2…6 (2) A
	Frequency	50 or 60 Hz
Operational data	Switching differential SD	≤1°K
	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
	Packaging	single packaging / min. order 20 pieces
Norms and standards	CE conformity to	
	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)

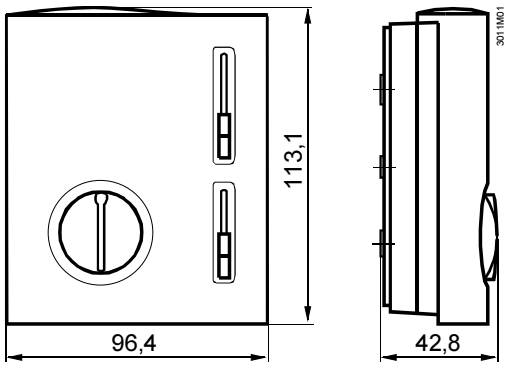
Connections diagram



D1	Zone valve or thermal valve for heating
D2	Zone valve or thermal valve for cooling
L	Switching voltage AC 250 V
M1	3-speed fan
N	Neutral
N1	Room thermostat
Q1	Control output "Fan speed I", AC 250 V
Q2	Control output "Fan speed II", AC 250 V
Q3	Control output "Fan speed III", AC 250 V
Y1	Control output "Valve actuator heating", AC 250 V
Y2	Control output "Valve actuator cooling", AC 250 V

Dimensions

Unit



Baseplate