



Application

RL309 is used to control the room temp. in Heating or Cooling systems. Typically applications include:

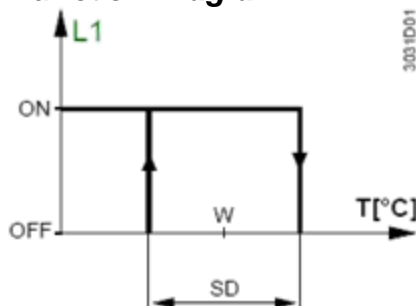
- ☞ Homes
- ☞ Residential buildings
- ☞ Schools
- ☞ Offices

It is able to control following equipments or device:

- ☞ Zone Valves
- ☞ Fans
- ☞ Pumps
- ☞ Compressor

Specification

※ Function Diagram

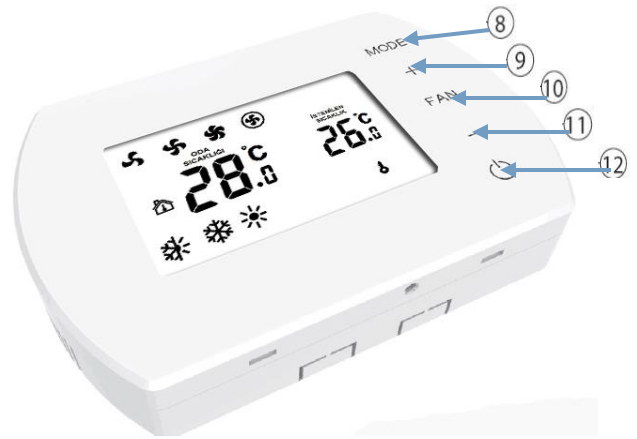
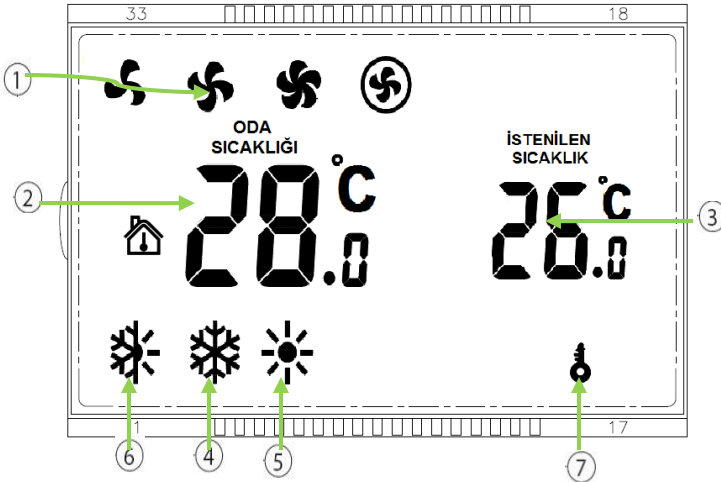


- T** Room Thermostat
- SD** Switching differential (1K)
- W** Room temperature setpoint
- L1** Output Signal for Heating

※ General Information

- | | | | |
|--------------------------|---|----------------------|-----------|
| Housing Material | ABS & Acrylic | Current Load: | <5 A |
| Power Supply: | AC24V, 50/60Hz | Ambient Temp. Range: | 0~50°C |
| Power Consumption | <1.5W | Timing: | <1% |
| Setpoint Range: | 5-40°C | Humidity: | < 90% r.h |
| Accuracy/Tolerance: | +/-1°C | | |
| Thermistor : | 10K Ω@25 °C | | |
| Storage Conditions Temp. | -10~60 °C | | |
| EEPROM | it remain the status and settings in case of system electric power is cut off suddenly. | | |

✳ **Display Icons & Buttons**



Display

- 1. Fan Speed: Low, Med, High and Auto
- 2. Room Temperature
- 3. Set Temp Display
- 4. Cooling Mode
- 5. Heating Mode
- 6. Auto Mode (Heating/Cooling Switchover automatically)
- 7. Buttons Lock

Buttons

- 8. Mode: 1) Push shortly to select Cooling Mode, Heating Mode and Auto Mode
- 9. Temp Up(or Parameters setting)
- 10.Fan: Push shortly to select fan speed from Low, Med, High to Auto
- 11.Temp Down (or Parameters setting)
- 12. Power On/off

Error

Alarm will appear if there is error with internal or external.

E0 Internal Sensor

Parameters setting

✳In case of the thermostat is switch off, please press and hold **MODE& FAN** buttons for 3 seconds

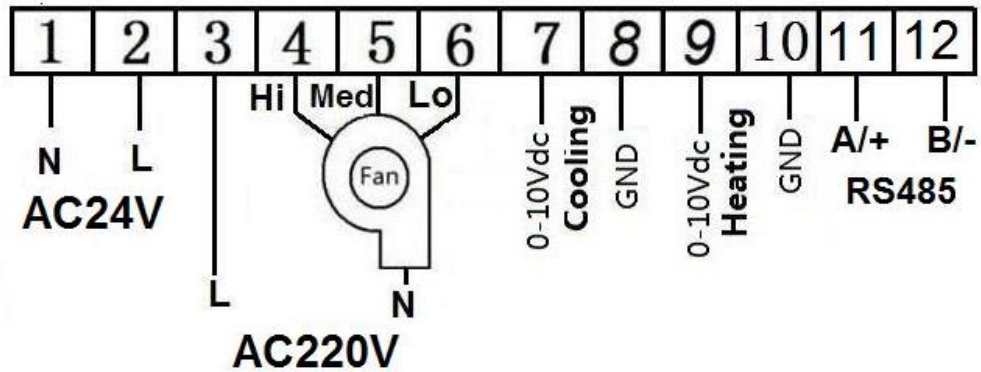
Code	Parameters	Operated by + / - button
1	Temp Calibration	-9°C~+9°C
2	Fan Status	C1: Fan stops running when the room temp is equal to setpoint C2:Fan keeps running when the room temp is equal to setpoint(defaulted)
3	System	0: 2 Pipe system; 1: 4 Pipe system (defaulted);
4	Deadband for Automatic Heating and Cooling	0~5.0 °C; 2 °C is defaulted
5	P Band Range	4,6,8 &10
6	I Time Range	1~59 Sec
7	Modbus ID setting	1~247(01~F7)

※ **Button Lock/Unlock**

Push and hold + and - buttons simultaneously for 5 sec to LOCK all buttons

Push and hold + and - buttons simultaneously for 5 sec to UNLOCK all buttons

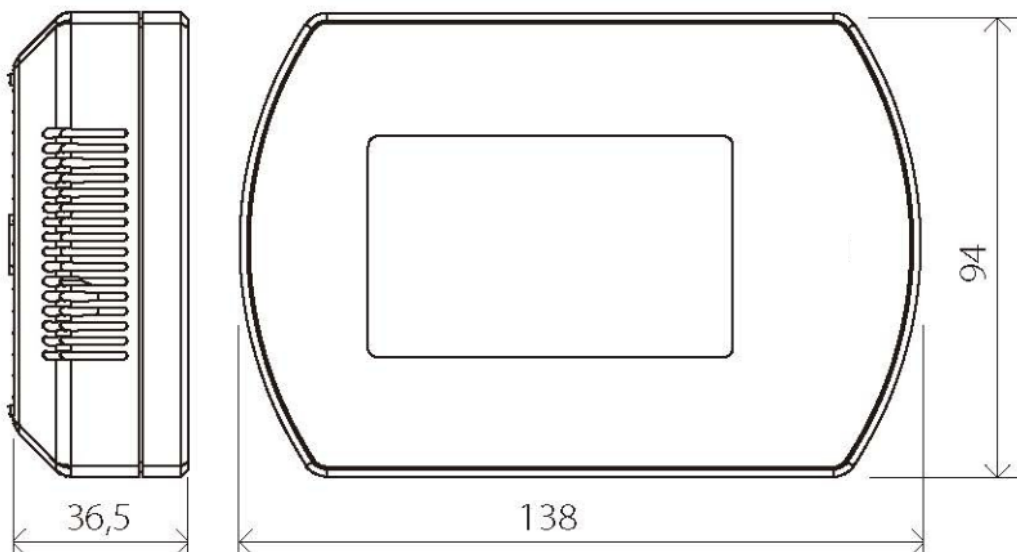
Wiring Diagram



WARNING: RISK OF ELECTRICAL SHOCK. Disconnect power supply before making electrical connection. Contact with components carrying hazardous voltage can cause electrical shock and may result in severe personal injury or death.

Color & Dimensions

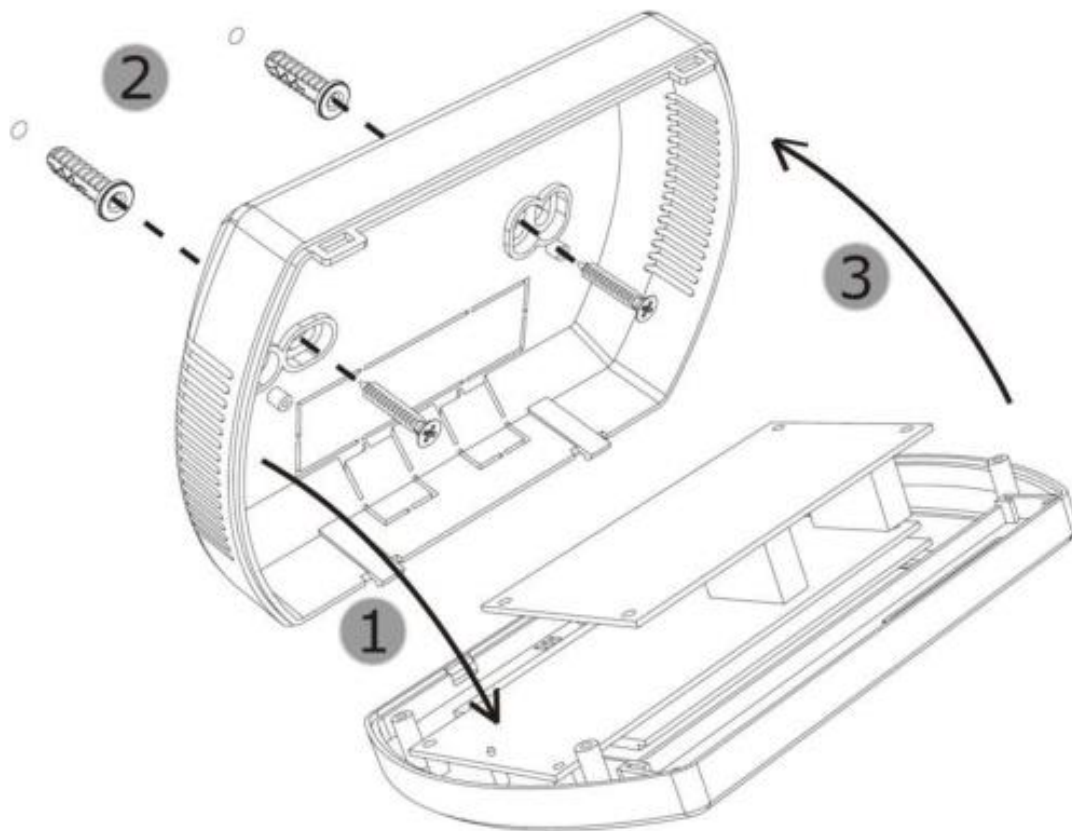
- ※ *Housing:* white is defaulted, customized colors can be negotiated
- ※ *LCD Display:* Blue backlight is defaulted, White and Green colors are available



Mounting

Mount the thermostat in location where the air temperature can be measured as accurately as possible without adversely affect by direct solar radiation or other source of heating or cooling.

- 1st_ Take off the baseplate from the controller
- 2nd_ Fix the baseplate using screwdriver on the wall
- 3rd_ Insert and clip the display unit on the baseplate



Warranty

We offer warranty of 12 month, from the sales date. If it is not the quality problems, or beyond the warranty period, we will charge for the after-sales services