EXT-RC..-24

BELIMO®

Application
EXT-RC series of proportional and floating thermostats are used to control room temperature in commercial applications.

Features
- LCD with green backlight
- Detects and displays room temperature
- On/Off, modulating control for cooling or heating valve
- Room temperature setting
- Fahrenheit (°F) or Celsius (°C) display
- Selectable single or three speed fan control
- Remote sensor input

Technical data

Electrical data	Power		AC 24V ±10%, 50Hz/60Hz
	Rated power		< 1W
	Output signal EXT-RCP-24		AC 24V x 2 (0.5A resistive) 0-10 VDC (5mA)/ 4-20 mA (600Ω)
	Output signal EXT-RCF-24		AC 24V x 2 (0.5A resistive) floating point control
	Input signal		Dry contact (NO)
Functional data	Set temperature range		0° to 99.5° adjustable
	Accuracy displayed		0.1°
	Accuracy		±0.5°
	Sensor type		NTC
	Display		LCD
Dimensions	Dimensions		See <<Dimensions>>

Basic Features

Working modes	Cooling ❄ , Heating ☀ , Ventilating 🌀 , Auto △
Fan speed	3 speed (Low 🌀, Medium 🌀, High 🌀) / Auto ◉

Operation Instructions

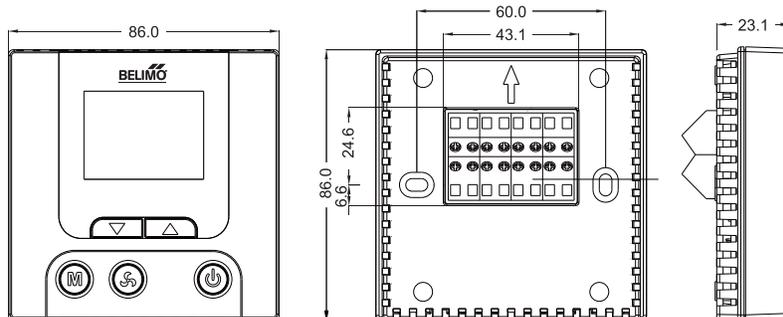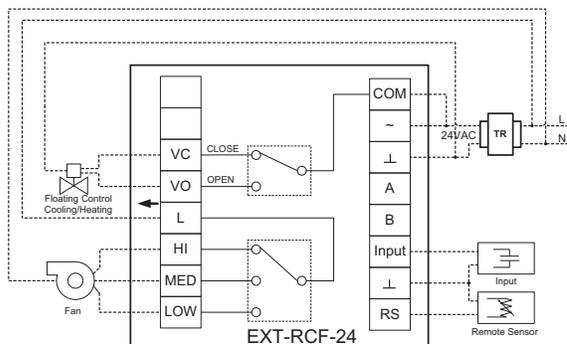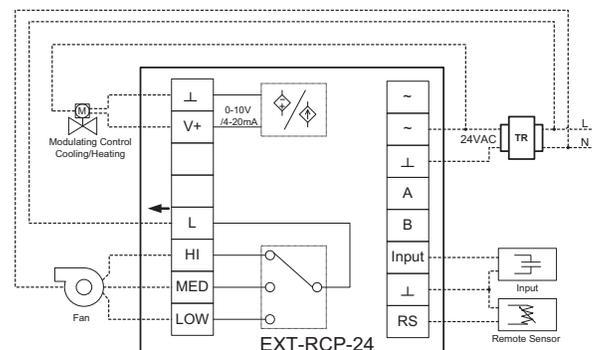|	
On/Off	Press ⏻ button.
Setpoint	Press ▼ to reduce the setpoint, press ▲ to increase the setpoint in 0.5°C increments. The setpoint will be confirmed automatically after 5 seconds and then will return to display status. Press ▲or ▼ to check setpoint.
Mode	Press Ⓜ to change the working mode-Cooling ❄ , Heating ☀ , Vent 🌀.
Fan speed	Press ⑤ to select the desired speed-low 🌀 , medium 🌀 high 🌀 ,or auto ◉.If single speed fan is chosen, only medium speed 🌀 will be available.
Auto fan speed	The fan speed will be changed automatically to the following: Low speed- when room temperature is 1° difference with setpoint. Med. speed- when room temperature is 2° difference with setpoint. High speed- when room temperature is 3° difference with setpoint.
Sleep	Thermostat will go into sleep function after programming.
To set sleep mode	Press Ⓜ button for 3 seconds until 🌙 display shows. A countdown will start in the center of the screen. Use ▲ or ▼ to adjust the desired sleep time. The maximum setting is 48 hours. Thermostat will return to working status after 5 seconds. 🌙 will flash to start countdown. The setpoint will be replaced by the sleep setpoint.
To quit sleep mode	When the thermostat is in sleep function, 🌙 will flash. Press ▲ or ▼to quit.
Keypad lock	Press ▲ and ▼ for 10 seconds. This will activate the 🔒 display. under this function, the keypad is locked. To unlock, press▲and ▼for 10 seconds until 🔒 disappears.
Set parameters	With thermostat off, press Ⓜ for 10 seconds to enter the menu to set all parameters.

Parameter Settings

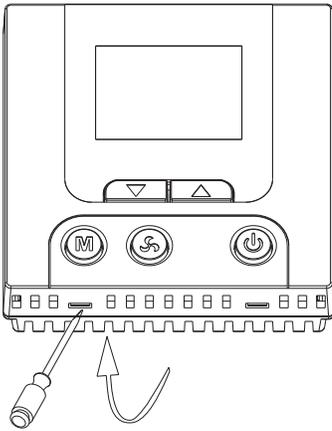| Parameter	Description	Default	Range
1	Power on status (0: off, 1: on, 2: hold)	2	-
2	Fan speed (0: single speed, 1: three speed)	1	-
3	Fan mode (DA: When the temperature reaches the set-point, the valve will close with the fan still running. DB: When the temperature reaches the set-point, the valve will close and the fan will shut off.)	0	-
4	Sensor selection (0: internal, 1: remote)	0	-
5	Temp. display (0: Celsius, 1: Fahrenheit)	0	-
6	Temperature calibration	0	-20 to +20
7	Minimum setpoint	5° / 41°	0 to 99
8	Maximum setpoint	35° / 96°	0 to 99.5
9	Dead band	2	-

Modulating Output Options

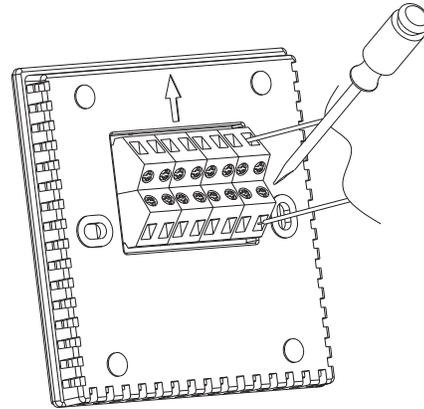| Location	ON	OFF
1	120 ohm resistance between AB wires	No resistance between AB wires
2	Port 1 modulation 0-20 mA	Off
3	Port 1 modulation 0-10 VDC	Off
4	Port 2 modulation 0-20 mA	Off
5	Port 3 modulation 0-10 VDC	Off

Note: Switch (5 pole switch on PCB)

Dimensions (mm)

Wiring Diagrams

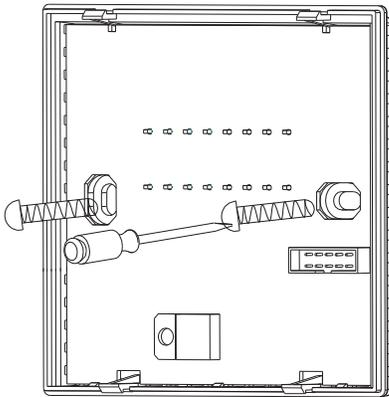**EXT-RCF-24**

EXT-RCP-24

Installation Manual

1   **Open the back panel with a screwdriver.**

2   **Connect the wires per the wiring diagram.**

3   **Secure the base with the screws provided.**

4   **Reattach the front panel.**