

# SRE05 ON/OFF THERMOSTAT

## DESCRIPTION

SRE05 series on/off thermostat is mainly used in central air-conditioning heating and cooling system. It works with TSC series temperature sensor. It provides temperature control for central air-conditioning fan coil cooling / heating motorized valve or other electric actuator by the control signal which produced by comparison of actual tested ambient temperature and setting temperature.



## CHARACTERISTICS

- Power surge and instant pulse protection.
- LCD (with backlight) showing ambient temperature and state.
- Built-in or external long-distance temperature sensitive element (NTC thermistor).
- With PC plastic housing, in compliance with UL-94V0 standard.
- With flexible installation and convenient wiring.

## TECHNICAL DATA

PRODUCT NAME	SRE05A (Heat/Cool) SRE05B (Cool Only)		SRE05C	
	2-PIPE		4-PIPE	
POWER SUPPLY	AC24V	AC220/230V	AC24V	AC220/230V
OUTPUT	AC24V 1A	AC220/230V 1A	AC24V 1A	AC220/230V 1A
POWER CONSUMPTION	0.6VA (without load)	6VA (without load)	0.6VA (without load)	6VA (without load)
CONTROL PRECISION	±0.5°C (±1°F)			
CONTROL RANGE	10°C ~ 30°C or 50°F ~ 86°F			
SENSITIVE ELEMENT	NTC thermistor 10kΩ (when at 25°C)			
DISPLAY PRECISION	0.2°C / 1°F			
BACKLIGHT CONTROL	Button-press operation (It will automatically go out when stop pressing the button for 5 seconds.)			
BACKLIGHT COLOR	Green-G, Blue-B, Yellow-Y (three backlight colors for optional)			
WORKING TEMPERATURE	0 ~ 55 °C			
STORAGE TEMPERATURE	-10 ~ 60 °C			
AMBIENT HUMIDITY	Max. 90% RH no condensation			

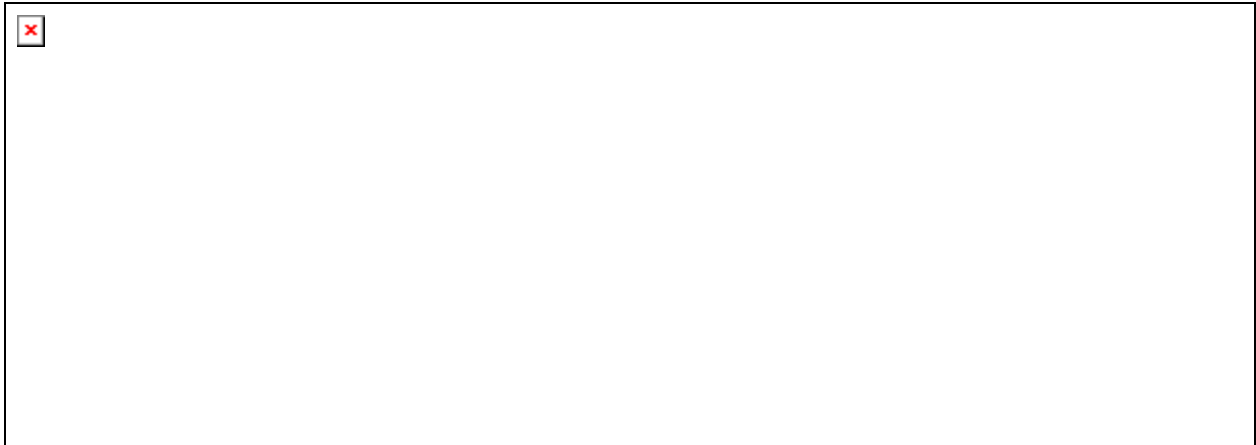
## INSTRUCTION

1. **Turn on/Turn off:** When it is power on, the thermostat will self-check, and then the LCD will go out. The backlight will automatically go out after holding for about 5 seconds. The system will enter into **turn off** state. When user presses the on/off button (keep for 0.5 seconds and then release), the system will enter into **turn on** state. The LCD backlight will light on for about 5 seconds and then light off automatically. Then it turns into on/off temperature control modulating mode. During system operation, when user presses the on/off button, the LCD will turn off. The system will enter into **turn off** state. Every time when user presses the on/off button, the **turn on/turn off** state will automatically shift.
2. **Cool/heat shift:** During system operation, when user presses the cool/heat shift button (only suitable for 2-pipe application, the button will not action for 4-pipe application), cool/heat state will change over, cool/heat (❄️/☀️) symbol will show on the display; When it is used in 4-pipe application, cool/heat state will shift automatically according to the ambient temperature and setting temperature. Cool/heat (❄️/☀️)

symbol shown on the display will automatically shift, too.

3. **Temperature setting:** When user presses  $\Delta$  (increase) /  $\nabla$  (decrease) button, LCD display temperature setting will show increase or decrease accordingly. The increase/decrease rate is  $1^{\circ}\text{C}/1^{\circ}\text{F}$ . The adjusting range is  $10\sim 30^{\circ}\text{C}/50\sim 86^{\circ}\text{F}$ . When user stops pressing the button for over 5 seconds, the thermostat will change the setting temperature data in its memory, and save the updating data. The LCD will show the ambient temperature. (Initialization value is  $23^{\circ}\text{C}/74^{\circ}\text{F}$  or  $25^{\circ}\text{C}/77^{\circ}\text{F}$ .)
4. **Built-in/external sensor:** When built-in NTC thermistor is used, the jumper J1 should be put to "Int" position (Ex-factory setting position is "Int"). If the external NTC sensor is used, the jumper J1 should be put to "Ext" position.

## WIRING DIAGRAM



SRE05A / SRE05B

SRE05C

## INSTALLATION DIAGRAM

