IBS05L FLOATING THERMOSTAT

DESCRIPTION

IBS05L floating/modulating 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 control signal which produced by PID operation between actual tested ambient temperature and setting temperature. When electronic thermostat is power on or turned off, it can output return signal to make the motorized valve or other electric actuator return.

CHARACTERISTICS

- Auto-return function when power on or off.
- Power surge and instant pulse protection.
- Non-volatile memory (Heating or cooling status and setting temperature).
- Child-lock, prevent the child from messing up with the setting point.
- Overtime protection function.
- LCD (with backlight) showing ambient temperature and status.
- With fan speed switch, fan speed status display.
- Percentage display corresponding to DC voltage output (only suitable for IBS05LP, IBS05LU). It does not represent the open extent of valve.
- External long-distance temperature sensitive element (NTC thermistor) for option.
- Cool/heat shift: clockwise or anti-clockwise signal output (summer or winter).
- With PC plastic housing, in compliance with UL-94V0 standard.
- With flexible installation and convenient wiring.

TECHNICAL DATA

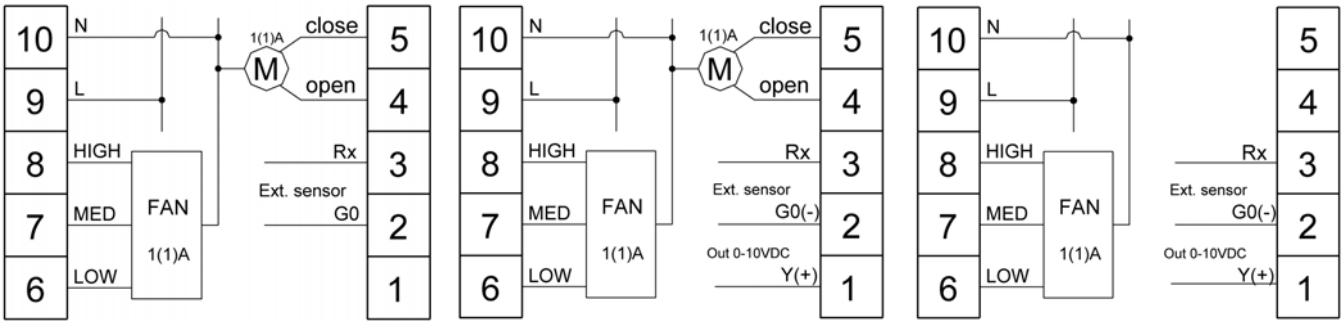
PRODUCT MODEL	IBS05LF	IBS05LU	IBS05LP
POWER SUPPLY	AC220/230V	AC220/230V	AC220/230V
OUTPUT	AC220/230V 1A	AC220/230V 1A DC 0~10V 1mA	DC 0~10V 5mA
FAN OUTPUT	AC220/230V 1(1)A		
POWER CONSUMPTION	6VA (without load)		
CONTROL PRECISION	±0.5℃(±1°F)		
CONTROL RANGE	10℃ ~ 30℃ or 50 °F ~ 86 °F		—
OVERTIME PROTECTION	Time of valve operation≥150s(≥300s)		—
SENSITIVE ELEMENT	NTC thermistor 10kΩ (at 25℃)		
DISPLAY PRECISION	0.2℃ / 0.5 °F		
BACKLIGHT COLOR	Green-G, Blue-B, Yellow-Y (three backlight colors, request by order)		
BACKLIGHT CONTROL	Button-press operation (It will automatically go out in 5 seconds after stop pressing the button.)		
WORKING TEMPERATURE	0 ~ 55 ℃		
STORAGE TEMPERATURE	-10 ~ 60 ℃		
AMBIENT HUMIDITY	Max. 90% RH no condensation		

INSTRUCTION

1. **Power on/Power off:** When there is power supply, the default setting of the system is **power off**. After user presses the on/off button (keep for 2 seconds and then release), the system will enter into **power on** state. The LCD backlight will turn on for about 5 seconds and then off automatically. Then it is the temperature control ON/OFF mode. During system operation, when user presses the on/off button, the LCD will turn off. The system will enter into **power off** state. When user presses the on/off button, the **power on/power off** state will automatically shift.

2. **Cool/heat shift:** When the system is on Cooling state, user presses the cool/heat button (only suitable for heat/cool system), will to change over Cooling/Heating state, the cool/heat (❄/☼) symbol will be shown on the LCD. When it is for 2-pipe application, the cool/heat signal is output through the same terminal. When it is for 4-pipe application, the cool/heat signal is output through the different terminal; when the system is on Heating state, there is no signal output through the Cooling terminal, vice versa.
3. **Temperature setting:** When user presses △（increase）/ ▽（decrease）button, LCD display temperature setting will show increase or decrease accordingly. The increase/decrease rate is 1℃/1°F. The adjusting range is 10~30℃/50~86 °F. When user stops pressing the button for over 5 seconds, the thermostat will change the setting temperature data in memory, and save the updating data. The LCD will show the ambient temperature. (Default setting can be set.)
4. **Built-in/external sensor:** When it is using the built-in NTC thermistor, the jumper J3 should be put to "Int" position (Default setting position is "Int"). If it is using the external NTC sensor, the jumper J3 should be put to "Ext" position. The external sensor should connect to the PCB between Rx and G0.
5. **Fan control:** After power is on, the fan speed will be changed by switching the fan switch. And the fan will be closed after the power is off.

WIRING DIAGRAM



IBS05LF IBS05LU I B S 0 5 L P

INSTALLATION DIAGRAM