KGE07 SERIES THERMOSTAT

DESCRIPTION

KGE07 series thermostat is mainly used in central air-conditioning and heating system. It detects room temperature and compares it with setting point, then provides control signal to central air-conditioning fan coil cool / heat motorized valves or other actuating mechanism. It can also control the fan blower of fan coil units and adjust the fan speed. When the KGE07 thermostat is turned off or get power supply after system power shut off, it can output a return signal to make the motorized valves or other actuating mechanism return.

CHARACTERISTICS

- Power surge and instant pulse protection.
- Output signal overtime protection function, auto-return function when the thermostat is turned off or get first power supply (KGE07F).
- Fixed setting temperature function
- Large LCD with background light shows the control state, ambient temperature, setting temperature and fan speed.
- With system on-off switch and fan speed switch.
- Inside or outside long-distance temperature sensitive element (NTC thermistor)
- With ABS fireproof plastic, compliance with UL-94 standard.

TECHNICAL DATA

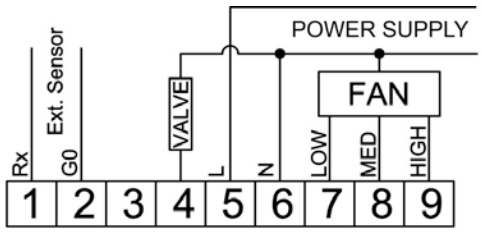
NAME	KGE07A/B (2-pipe sys.) KGE07C (4-pipe sys.)	KGE07D (Elec. On/off) / KGE07F	KGE07P	
POWER SUPPLY	24Vac; 220/230Vac		AC24V	AC220V/230V
OUTPUT	24Vac, 1(0.8)A; 220/230Vac, 1(0.5)A		DC0-10V 10mA	DC0-10V 5mA
POWER CONSUMPTION	0.6VA ; 6VA (without load)		0.6VA (without load)	6VA (without load)
FAN OUTPUT	24Vac, 2(1) A; 220/230Vac, 2(1)A		24Vac, 2(1) A	220/230Vac, 2(1)A
RETURN TIME	---	≥150s or ≥300s (for option)	---	
OVERTIME CUT OFF	---	Valve operate to the same direction ≥150s (≥300s), turns into overtime protection state.	---	
WORKING STATE	On/off type	Floating (PID)	Floating (PID)	
CONTROL PRECISION	±0.5°C (±1°F)			
CONTROL RANGE	10°C - 30°C or 50°F - 86°F			
BACKGROUND LIGHT	Blue—B; Green—G; or Yellow—Y			
SENSITIVE ELEMENT	NTC thermistor 10KΩ (when at 25°C)			
WORKING TEMPERATURE	0 ~ 55°C /32°F ~131°F			
STORAGE TEMPERATURE	-10 ~ 60°C /14°F ~140°F			
AMBIENT HUMIDITY	90% RH maximum			

P.O. BOX 741074 • DALLAS, TEXAS 75374 • TEL: (972) 563-9289 • FAX: (972) 563-5783
Email: info@kg-ind.com • Website: www.kg-ind.com

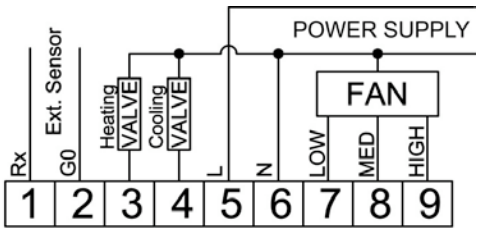
INSTRUCTION

1. **Cool/heat shift:** (KGE07A/B/C) in 2-pipe system, the thermostat is on Cooling state when the Power Supply switch is at position "❄"; on Heating state when the Power Supply switch is at position "■"; and, the thermostat is shut off when the Power Supply switch is at position "●". In 4-pipe system, the thermostat can only output heating or cooling signal according to the position of Power Supply switch. When the power switch is turned to position "●", the thermostat will self-check, and then make the valve run for 150 seconds (or 300 seconds) continuously towards the closing position. When it finishes operation, the thermostat will enter into turn off state. When the power supply switch turns to "❄", the LCD will show the cooling state symbol "❄", the action signal will output forward; when it moves to "☼", the LCD will show the heating state symbol"☼", the action signal will output backward. When it moves to "●", the LCD will shut off, the valve will run for 150 seconds (or 300 seconds) continuously towards the closing end, then the system will be shut off.
2. **Fan:** When the thermostat is in cooling or heating state, turn the fan switch , the LCD will display corresponding air volume symbol. The terminals will output power and provide operating power for the fan. If the thermostat isn't connected to the fan, only or can be shown on the LCD. The symbol can only be shown when the thermostat is connected to the fan correctly.
3. **Temperature setting:** When user presses △ （increase）/ ▽（decrease）button, LCD display temperature setting will show increase or decrease accordingly. The increase/decrease rate is 0.2°C /0.5 °F. The adjusting range is 10~30°C /50~86 °F. When user stops pressing the button for over 5 seconds, the thermostat will change the setting temperature data in its memory, and then the LCD shows the ambient temperature. (The ex-factory setting point is 25°C /77 °F.)
4. **Built-in/external sensor:** When built-in NTC thermistor is used, the jumper J3 should be put to position "Int". If the external NTC sensor is used, the jumper J3 should be put to "Ext" position.
5. **Fixed setting temp. function:** Put the jumper JP4 to position 1, the setting point can't be changed by pressing increase or decrease buttons. (The default setting is on position 0. The setting point can be changed by pressing increase or decrease buttons)

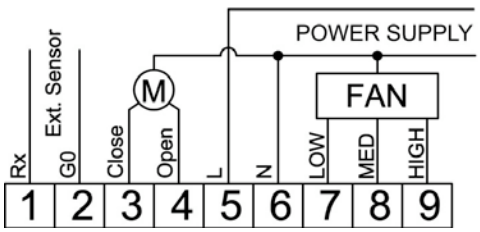
WIRING DIAGRAM



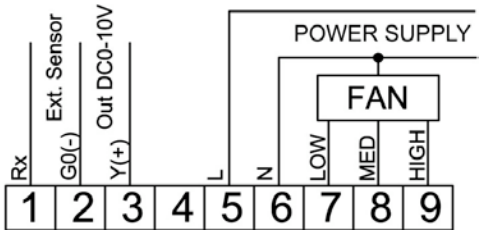
KGE07A/B



KGE07C



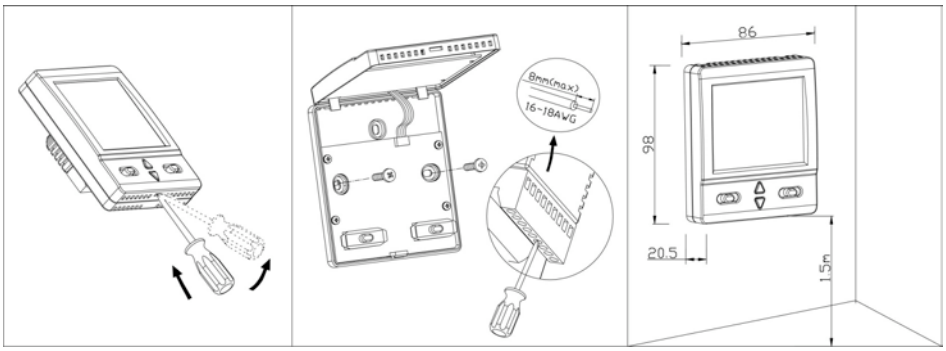
KGE07D/F



KGE07P

P.O. BOX 741074 • DALLAS, TEXAS 75374 • TEL: (972) 563-9289 • FAX: (972) 563-5783
Email: info@kg-ind.com • Website: www.kg-ind.com

INSTALLATION INSTRUCTION



Please remove the wiring terminal from the thermostat before wiring.

P.O. BOX 741074 • DALLAS, TEXAS 75374 • TEL: (972) 563-9289 • FAX: (972) 563-5783
Email: info@kg-ind.com • Website: www.kg-ind.com