

## E9...FCU Touch Screen Thermostat

Multi-functional intelligent digital thermostat is designed for controlling a 3-speed fan and an on/off valve actuator in 2-pipe/4-pipe FCU system, which is to meet up the adjusted indoor temperature.

### Selection table:

model	Application
E91.42	2-pipe FCU thermostat with LCD
E91.50	4-pipe FCU thermostat with LCD

### Parameter:

Voltage: AC230V(AC110V/AC24V available)

Load: I<sub>max</sub> 3A

Temp.measure: -9.9°C~99.9°C

Setting range: 5~45°C

Switching differential: +1°C, adjustable

Ambient temperature: 5~45°C

Protective housing: IP20




Housing material: Anti-flammable PC

### Daily use of the thermostat






1) ON/OFF and Timing ON function:

ON/OFF: press  to turn ON/OFF

2) Timing ON/FF:



Press  for 5 seconds, enter to timing ON/OFF setting, press  and  to adjust time, the setting range is 0~24h

3) User basic operation:


1. Modify the set temperature : Press  and  key to modify the temperature value, the setting range is 5~45°C
2. Menu mode: Press  key to enter menu mode set under the ON mode, Press the  key in menu mode or Press  key after one cycle to quit the menu mode

### Sub-menu in Menu mode:

- 1) Cooling, heating and thermostatic mode
- 2) Fan set
- 3) Sleeping set

1. Cooling/Heating: Press  and  key to modify cooling, heating and thermostatic operation mode. Only 4-pipe has thermostatic function.



2) Fan set: Press  and  key to modify the fan operation mode.



Speed: 1) Manual fan(High, Mid, Low) 2) Auto fan

When the sensor in Err, the fan will close after keep last operation for 30s. When the sensor operate well, the fans speed operates as below:

1. Fan independent control(3FCo is OFF in advanced menu)

Manual fan: Keep the set speed operation, do not affected by the temperature.

Auto fan: When closed the actuator valve, it will in low speed operation. The fan speed will be affected by the temperature when open the actuator valve.

2. Fan dependent control(3FCo is ON in advanced menu)when the actuator valve closed, fan will close after keep the last operation for 30s; The manual fan keeping the set speed when actuator valve open, the operation will not be affected by the temperature. Auto fan speed will be affected.

3. FCU valve and temperature

t is the switching differential of room temperature

Cooling:

Room temperature > set temperature+t, open the cooling valve and start cooling


Room temperature < set temperature-t, close the cooling valve and stop cooling.


Heating:




Room temperature < set temperature-t, open heating valve and start heating


Room temperature > set temperature+t, close heating valve and close heating

Thermostatic:

When the  flashing, the fan valve and fan speed as same as cooling

When the  flashing, the fan valve and fan speed as same as heating.

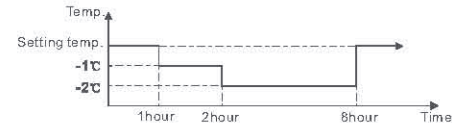
3) Sleeping set: Press   key to modify sleeping mode, the sleeping function will not be activated when  flashing,

the sleeping function will activated when  stop flashing, and the sleeping time is 8 hours

Cooling:







Heating:



### Advanced setting:(qualified person preferred)

Usually finish this operation in mounting.

Entering: Press  key simultaneously press ON/OFF key when in OFF mode or in LCD full display, press  key to enter the advanced menu. Press  key can enter next step and press  key will quit the current work mode in advanced menu. The modified parameter will save automatically after 1s without operate.

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Adj 17.0°

1. Adj Temp. measure and modify  
Press  $\Delta$   $\nabla$  to modify the current temperature, temperature range: -9.9~9.9°C

timing function closed, fan mode in auto and independence, connect power display off, the switch differential is 1°C.

2d.F 10

2. dIF Switch differential set  
Press  $\Delta$   $\nabla$  to modify the current switch differential, range: 1~10°C, one step is 0.5°C

### Function and display specification

Sensor Err tips  
When LCD display Err, the sensor brock circuit or short circuit, fan keeps the last operation for 30s then turn off.

3FCo OFF

3. FCo Fan select  
Press  $\Delta$  key to modify the current fan whether dependent control or not, fan dependent shows On, fan independent control shows OFF. the difference is that fan dependent control shows the fan will close the output when actuator valve close.

Menu key  
Sleeping mode

Heating  
Plus key  
Cooling

4PoF OFF

4. PoF ON/OFF mode  
Press  $\Delta$  key to modify ON mode, set On shows thermostat will recover to before power failure mode when has power, set off shows that will not recover.

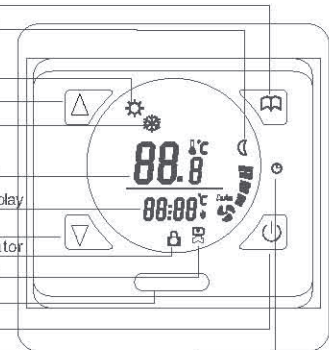
Temp. Measure  
Set value/time display

Minus key  
Key-lock indicator  
Valve indicator

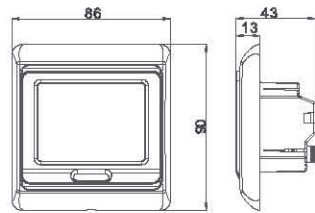
5FAC -

5. FAC Reset to factory setting  
Press  $\Delta$  key keep 3s, the LCD display "--" shows reset successfully. The setting temperature is 25°C, work mode is cooling, sleeping function closed,

Room sensor  
ON/OFF key  
Clock key

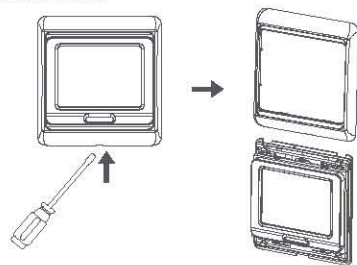


### Dimension:mm

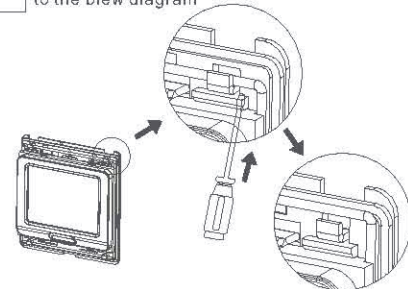


### Mounting steps:

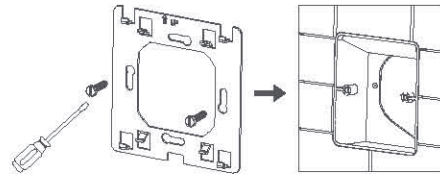
1 Release the front cover by screwdriver into bottom crack



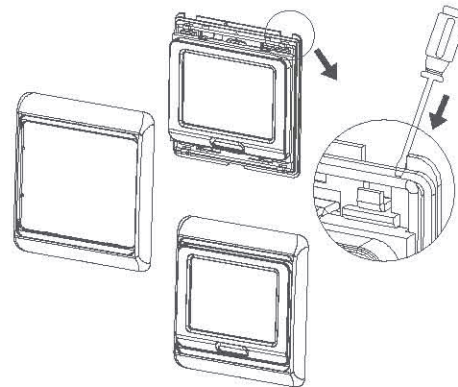
2 Take the back plate apart according to the blew diagram



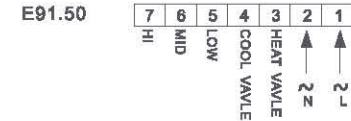
3 Mounted the back plate in the wall socket by screwdriver



4 After connect the wires, the thermostat mounted on the back plate and remounted the cover and frame



### Connecting diagram



Attention:  
The thermostat is applied to the full load work mode at 2500m height above sea level, and the rated power of external load should be less than or equal to 80% rate power when between 2500m to 4200m height.