# INSTRUCTIONS

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Heating thermostat with LCD screen, which has manual mode and energy saving mode. The thermostat is recommended for the control of electric heating device or on/off valve actuator in hydronic underfloor heating.

#### Selection Table:

Model	Current	Application
E31.113	3A	Built-in&floor sensor, floor limit sensor
E31.123	3A	Built-in&floor sensor,floor limit sensor,a potential-free output
E31.116	16A	Built-in&floor sensor, floor limit sensor

#### Parameter:

Voltage:220V/230V

Power comsuption:2W

Setting range:5~35°C (can adjust to 5-90°C)

External limitation:5...60°C (factor setting 35°C) Sensor:NTC internal/external sensor

Switch differential:0.5-10 °C adjustable factory setting±1°C

Ambient temperature:-5~50°C

Protective houseing: IP20

Housing material: anti-flammable PC

#### User operation:

1)ON/OFF and Mode choosing Slide the power switch to ( for energy saving mode, to to for manual mode ,to() for Off.

2)Modify the temperature value Press + key to increase the set value and press - key to decrease, every step is 0.5°C.

### Advanced setting (qualified person preferred):

Usually finished at mounting thermostat. Press + key simultaneously sliding the power on button to energy saving mode when in power off state.

⇒ 1ADJ:Temperature calibration Press + or - key to adjust present checked value Adjustable scale: ± 9.9 ℃





#### 2SEN:Sensor mode Press + or - key to choose senor

working mode

IN:built-in, OUT:floor sensor, ALL:both sensors.floor sensor is the limit sensor



⇒ 3LIT: Modify limitation value Press + or - key to modify the temp. Limit value Limition range:5~60 ℃



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≥ 4DIF:switch differential setting Press + or - key to change switch defferential Setting range: 0.5~10 ℃.





### 5LTP:Start anti-frozen function in power off state...

Press + or - key to change the present anti-frozen function



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6RLE:Potential-free output and main power output in same/ different way. Press + or - key to change the

present linkage state. 00:in same way, 01:in defferent way



> 7DLY:delay time of potentialfree output Press + or - key to change linkage delay time

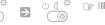
















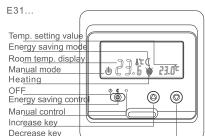
Switch off After finish the advanced setting, the modified function will operate in re-open. Please modify setting carefully.

### Sensor Failure

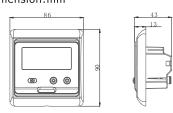
E0:Built-in sensor short-circuited or disconnected. E1:Exernal sensor short-circuited or desconnected. When shows E0/E1 error, thermostat must be checked till the error is eliminated

# E31...Heating Thermostat with LCD Screen.

## Display symbols

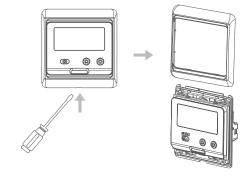


## Dimension:mm



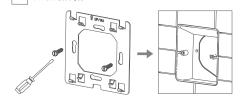
## Mounting steps:

Release the front cover by inserting a screwdrive into bottom crack.



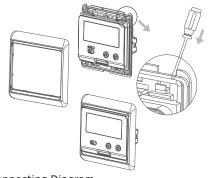
2 Take the backing plate apart according to the following diagram.

Mounted the backing plate in the wall socket by screwdriver.



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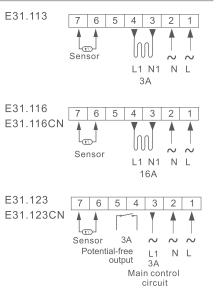
After connect wires(see right diagram), the thermostat mounte on the backing plate and remounted the cover and frame.



# Connecting Diagram

### Attention:

The thermotat which connect the electric heating device is apply to full load(3200W) heating cable in 2500m height above sea level,and the rated power of external load should be less than or equal to 80%rated powerthemostat when in the 2500m to 4200m height.



HVAC CONTROLS PRODUCTS

DS/MRD-06-091120