

Tstat6

**Descriptions**

This full-featured CPU based thermostat is designed for small cooling and heating air handling systems in residential and commercial facilities. The unit provides features which eclipse standard mechanical thermostats at a price that fits conventional HVAC projects.

**Highlights:**

- Tight control of 0.5°C provides comfortable indoor environment.
- High impact plastic enclosure provides durability in commercial environments.
- Customizable sequence of operation table (FCU with modulating or on/off valve, single or 3-speed fan, pressure independent VAV, stage sequencer)
- Available in Clock, Clock & Humidity, CO2 ,OCC and Zigbee options



Tstat6-OCC



Tstat6-Zigbee

**Tstat6 Technical Data**

**TSTAT6**.....5 relays x 2amps @24V, 7 analog inputs,  
2 analog outputs (10V @100ma)

Operating temperature..... -30-70°C(-22~158°F)

Supply voltage.....12~24VAC/DC ±20%, 50-60Hz

Power consumption.....100mA at 12VDC

Relay contacts rating.....2A @ 24VDC, 0.5A @ 125VAC  
UL File No.: E43149  
CSA File No.: LR26550

Ambient humidity.....10-90 %Rh

Operating Environment.....0 ~ 99% humidity non condensing

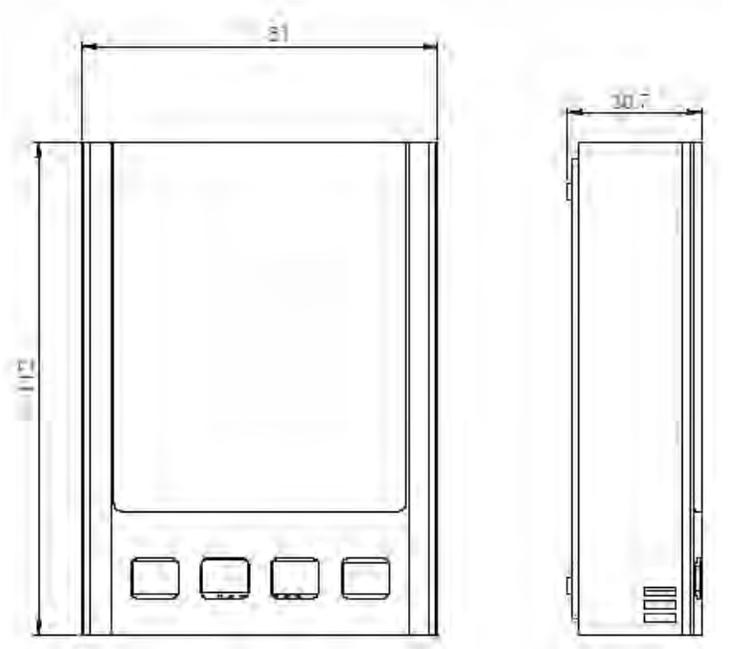
Plastic Housing.....Flammability rating UL 94V0 file E194560

Enclosure rating.....IP31

Temperature sensor.....10K thermistor ±0.5°C

Colour.....White/Off-white

Weight ..... 200g



**Tstat6-CO2 Technical Data**

- Tstat6 with CO2 sensor now available. All the powerful features of Tstat6 zone controller plus a CO2 sensor in one compact package.
- Can be used as a stand alone zone controller for ‘demand based’ total solution.
- Or use the analog outputs as a regular CO2 transmitter as inputs to a central controller.
- Modbus RS485 network connection for easy integration with automation systems.
- Tight control of 0.5°C provides comfortable indoor environment.
- High impact plastic enclosure provides durability in commercial environments.
- Customizable sequence of operation table (FCU with modulating or on/off valve, single or 3-speed fan, pressure independent VAV, stage sequencer...)
- An affordable CO2 sensing solution for HVAC/DCV

CO2 Performance:

Measurement Range.....0-3,000 ppm display  
(2000ppm, 5000ppm, 10,000ppm are optional)

Accuracy.....±70 ppm or ±5% of reading

Repeatability.....±20 ppm

Temperature Dependence .....Typ.±0.2% of reading per °C or ±2 ppm per °C, whichever is greater, referenced to 25°C

**Tstat6-Zigbee Technical Data**

- 2.4-GHz IEEE 802.15.4 Compliant RF Transducer
- Programmable Output Power Up to 4.5dBm

**Tstat6-C or Tstat-CH Technical Data**

A genuine Tstat6 with Clock or Humidity options, they added some new features.

1. Temperature range: indoor & outdoor -30 °C ~ + 70 °C ( -22 ~ +158 °F )

Humidity range : indoor 10% ~ 90%RH

Power - supply : 100mA at 12VDC

2. Functions :

Indoor & outdoor temperature display , indoor humidity display

Temperature unite °C /°F changeable .

Clock & date display function , automatic exchanging in 5 seconds between clock & date

Pointing function each hour

display the current temperature , humidity , time, and automatic exchanging working according to the schedule

Calender display function

Week display function

Clock ,date , lunar calendar , Gregorian calender automatic exchanging function ( only for typical models )

3. Attention :

\*Press button for one time when the meter is first used or the battery is replaced .

\*Press button for one time if any abnormal display appears .

**Tstat6-OCC Technical Data**

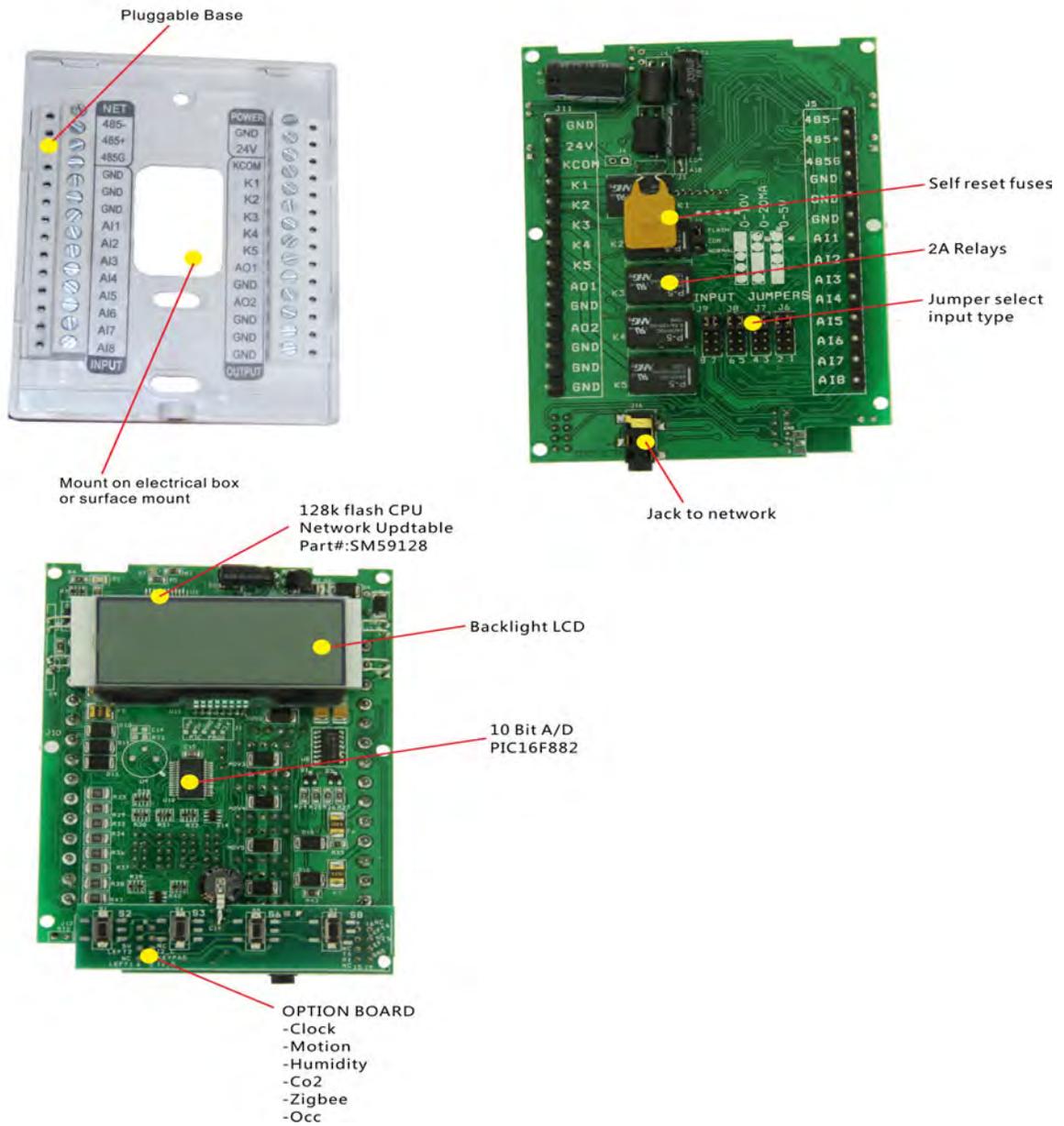
Tstat6-OCC is an energy conservation device designed to detect the presence of human occupants in a given area.

Many commercial, industrial and government facilities require a significant number of lighting fixtures for adequate illumination, and therefore use a significant amount of power to operate the lighting fixtures. A number of facilities use lighting control systems to control when the lighting fixtures are energized and thereby reduce the amount of power that is consumed to light these facilities.

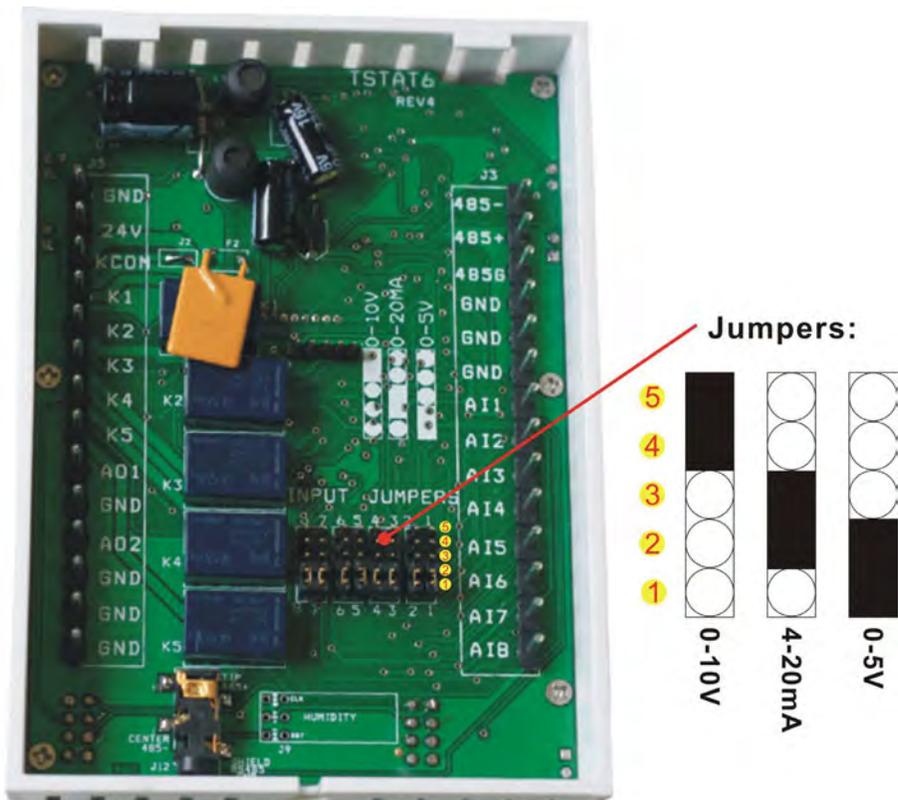
Tstat6-OCC can be provided with an ambient light sensor and control input therefor. The ambient light sensor and control input can be used to select a minimum level of light above which a lighting fixture is prevented from being switched and powered on following detected motion.

Tstat6-OCC typically sense the presence of one or more persons within a designated area and generate occupancy signals indicative of that presence. These signals activate or deactivate one or more electrical appliances, such as, for example, a lighting unit or a heating, ventilating, and air conditioning system. When occupancy is sensed, the various electrically-powered loads in that area controlled by the sensor are energized. When that same area has been unoccupied for a predetermined period of time, the sensor de-energizes the electrical loads that it controls. Thus, the lighting control system operates in a daylight inhibit mode when the ambient light level is sufficient to render the switching of the lamp unnecessary. The two most prevalent types of occupancy sensors are passive infrared and active ultrasonic devices. A passive infrared (PIR) sensor will turn on the load whenever it detects a moving or newly apparent heat source.

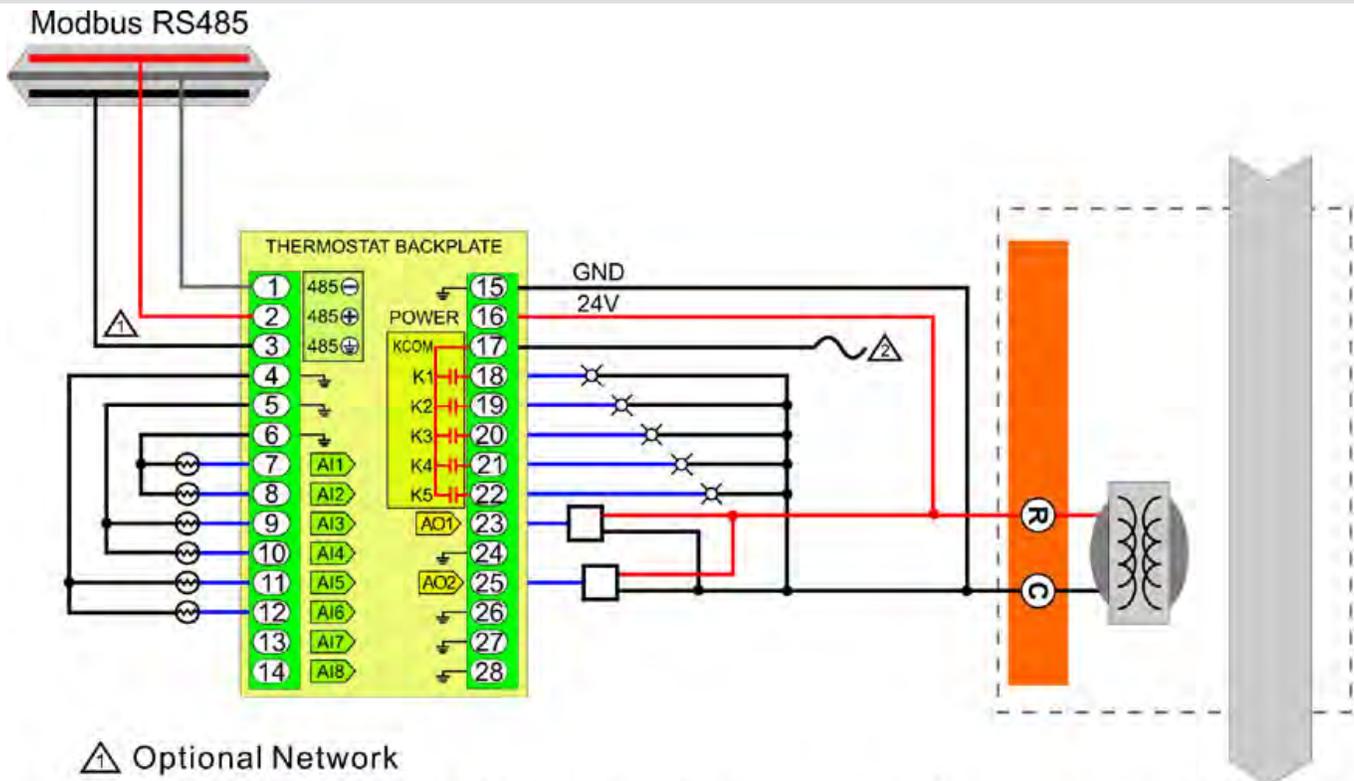
Tstat6-OCC will typically transmit ultrasonic sound waves via one or more transmitters which then reflect off of objects in the room and are detected by one or more receivers. The ultrasonic sensor emits vibrations at frequencies of 25 kHz or higher and listens to the return echoes; if it detects a significant Doppler shift, indicating the presence of a moving body, then it turns the load on.



Jumper Settings

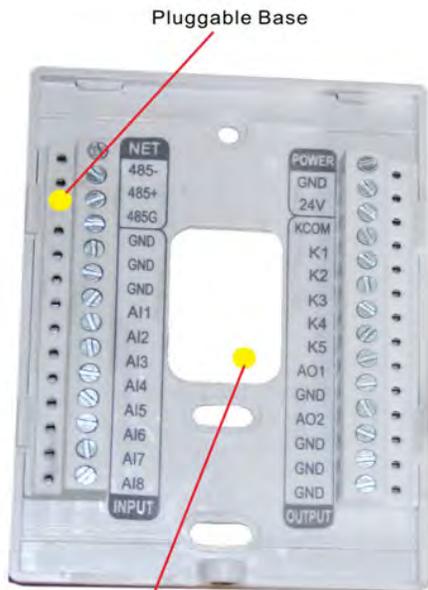


Wiring Diagram

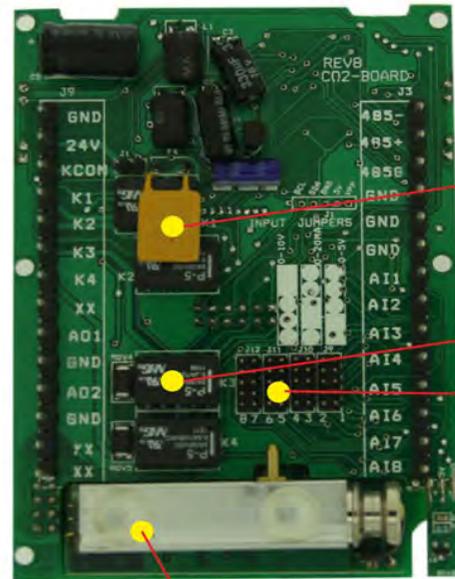


⚠ Optional Network

⚠ Relay Rating: Tstat6-220V version: Dry contacts, 10A any one relay, 20A combined.  
Tstat6: Dry contacts, 2A any one relay, 4A combined.



Mount on electrical box or surface mount

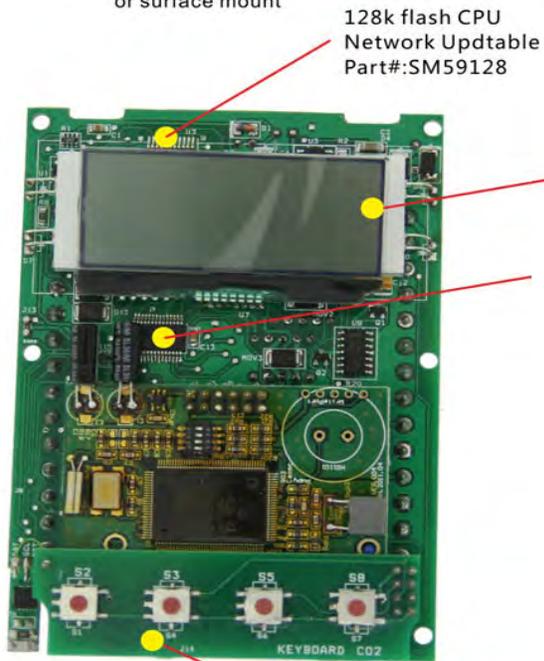


Self reset fuses

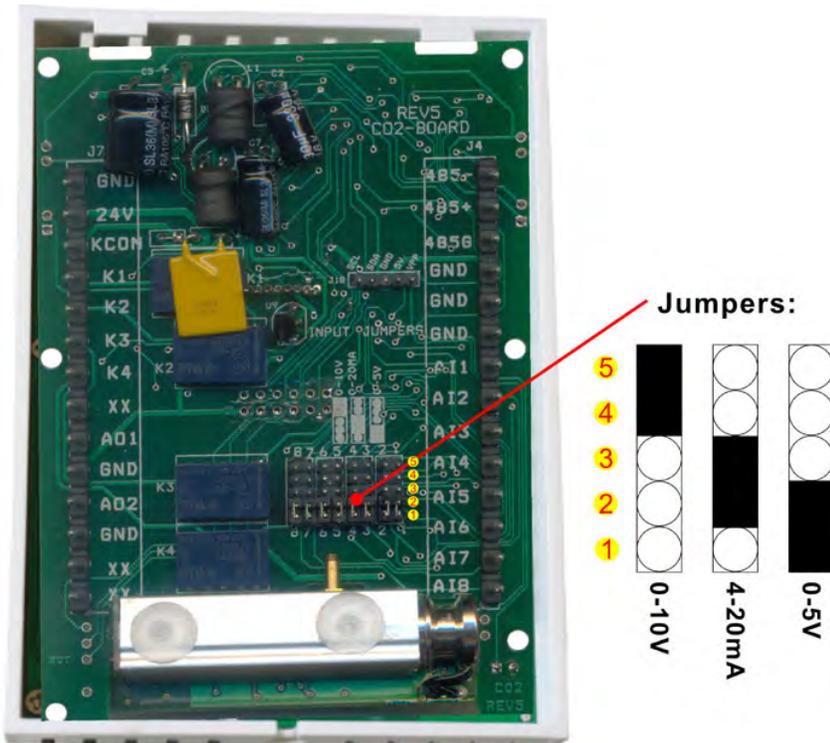
2A Relays

Jumper select input type

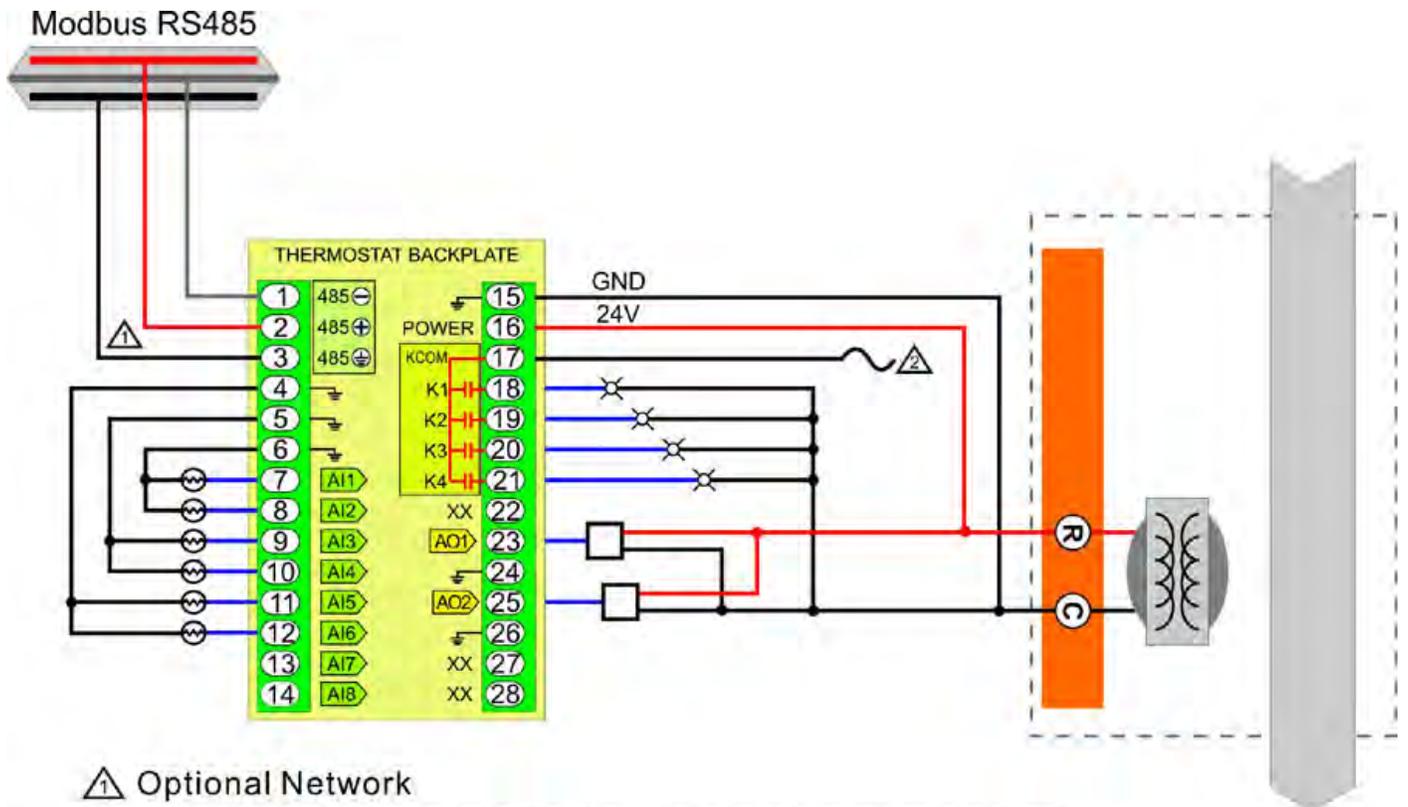
CO2 Sensor

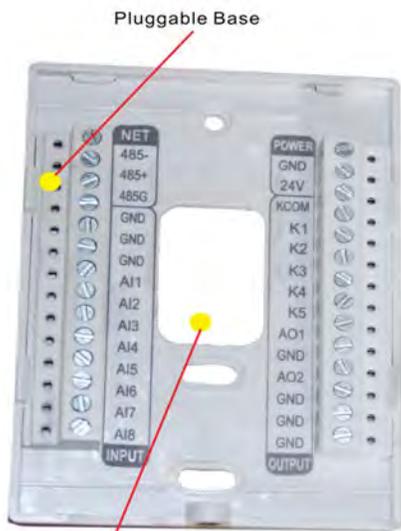


Jumper Settings



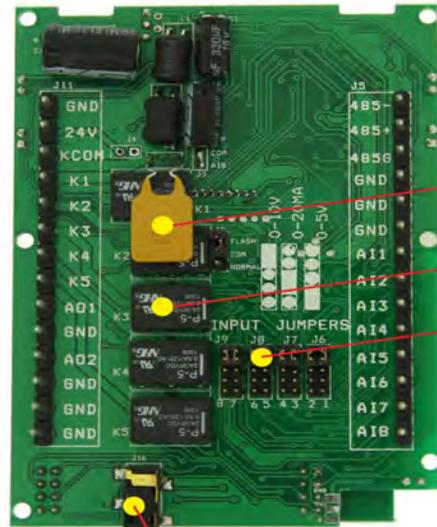
Wiring Diagram





Pluggable Base

Mount on electrical box or surface mount

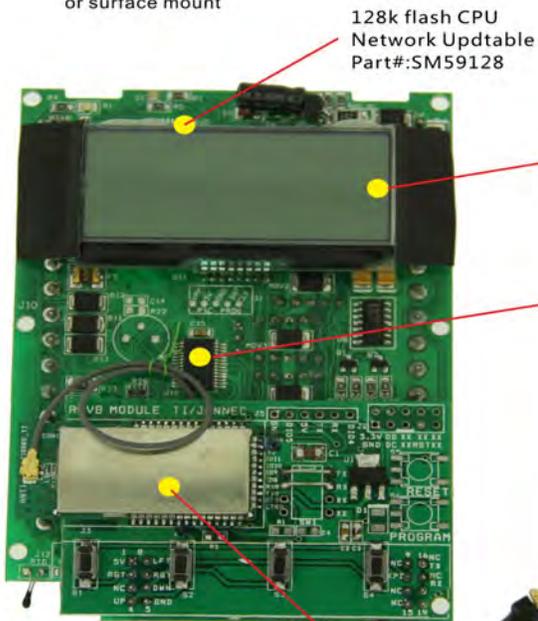


Self reset fuses

2A Relays

Jumper select input type

Jack to network



128k flash CPU  
Network Updtble  
Part#:SM59128

Backlight LCD

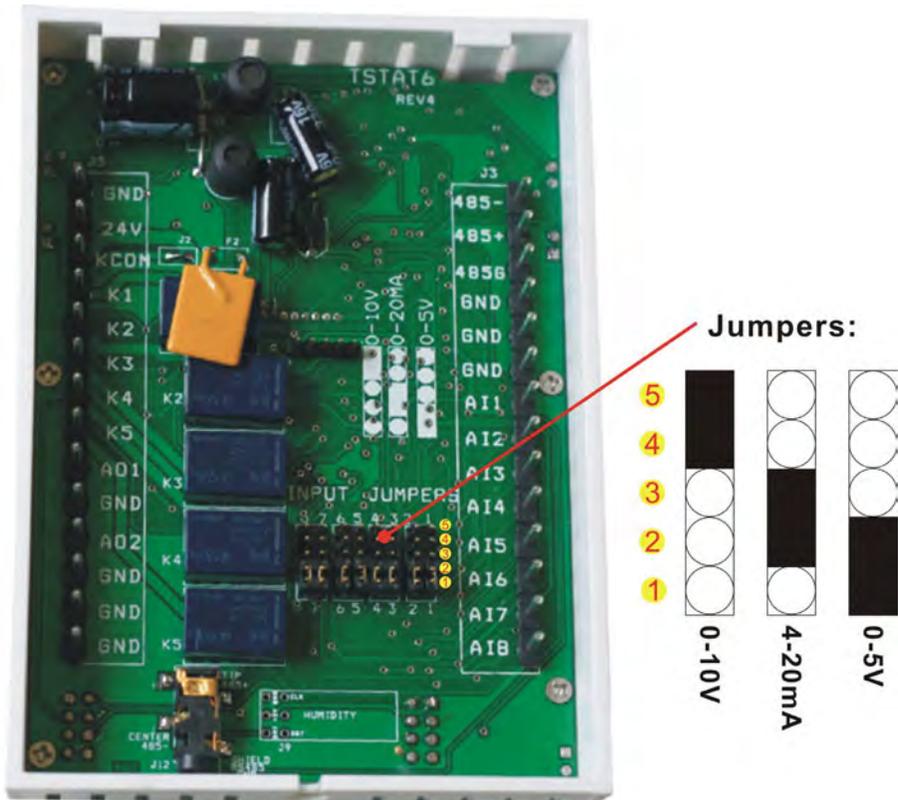
10 Bit A/D  
PIC16F882

Zigbee Antenna

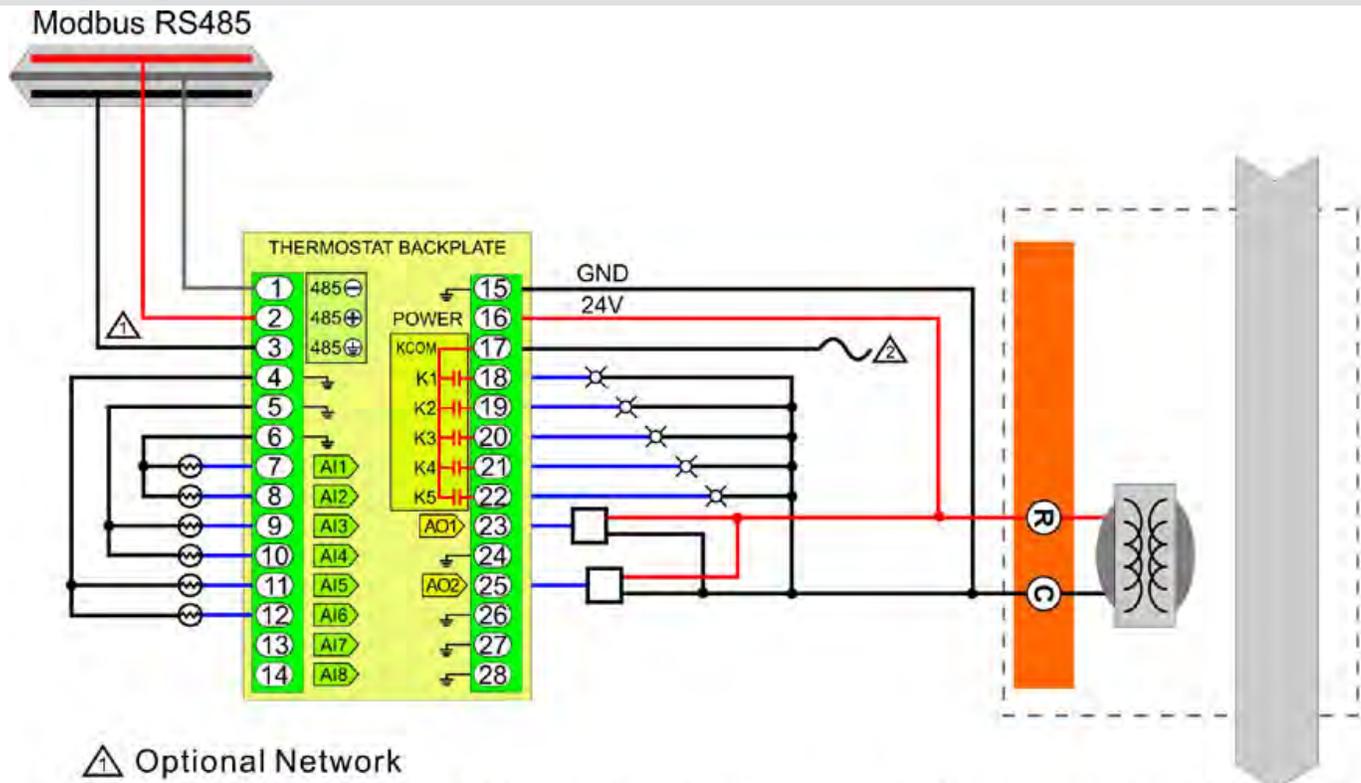
Zigbee Moudle with Metal can



Jumper Settings

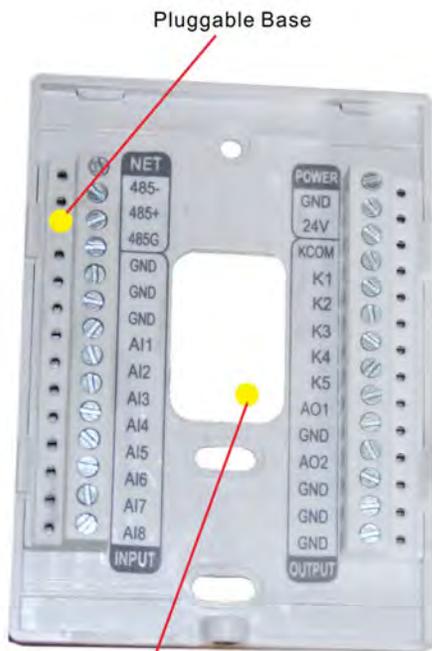


Wiring Diagram

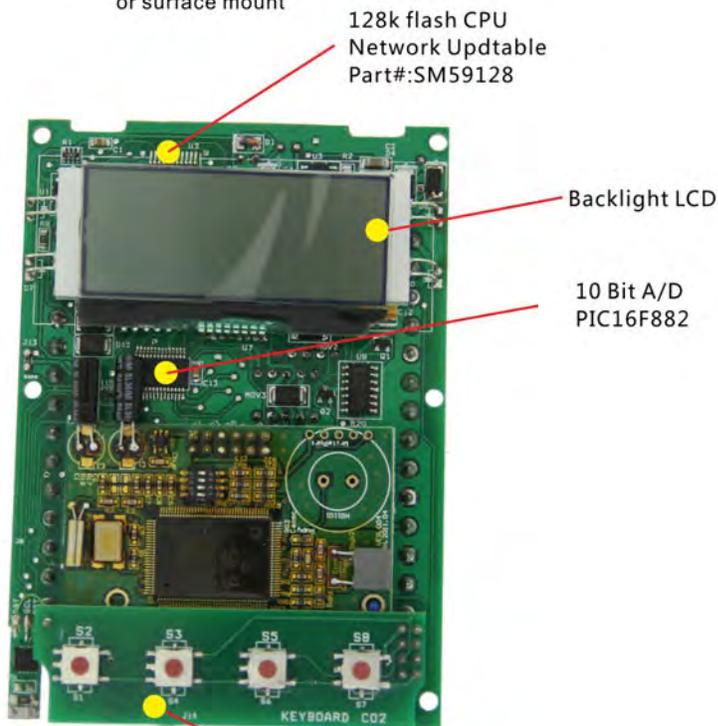
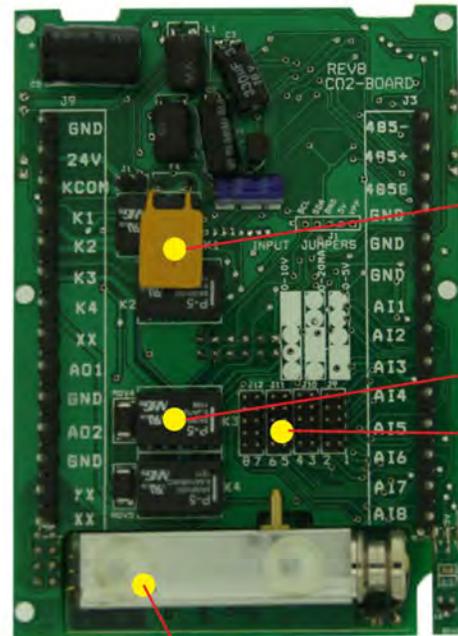


△ Optional Network

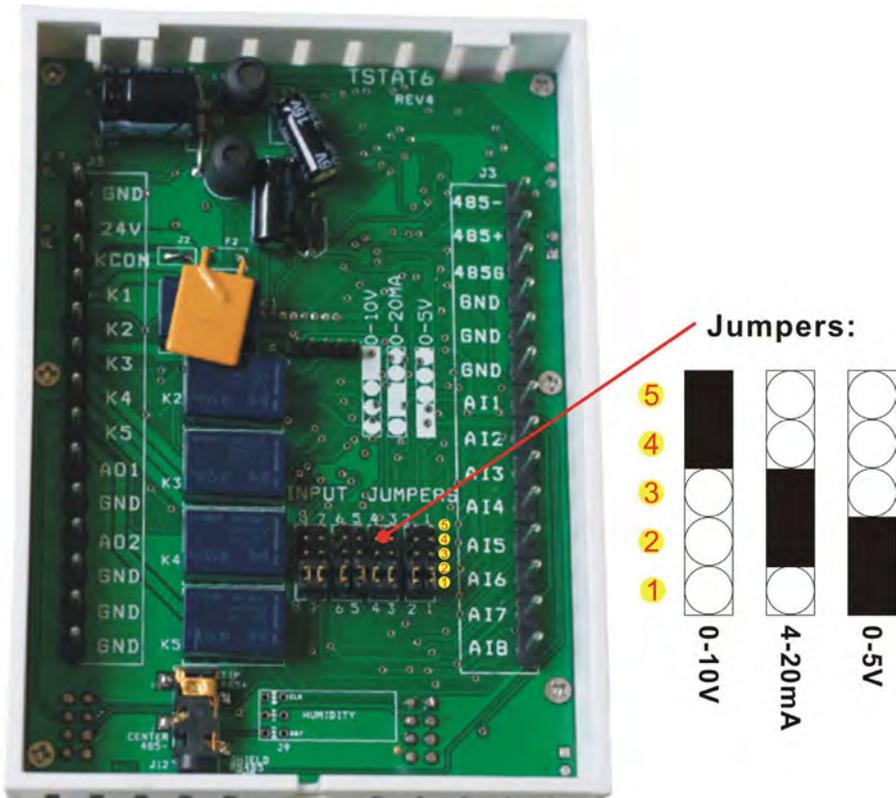
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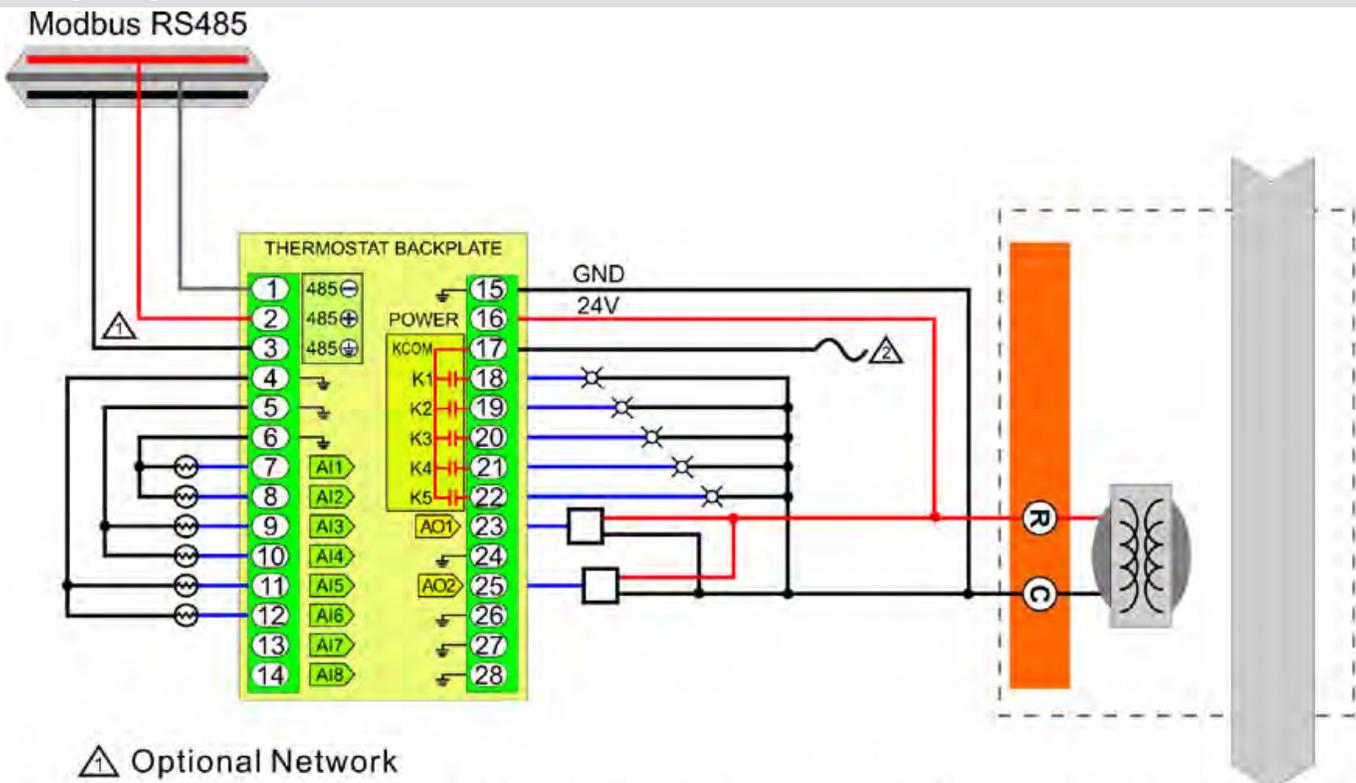
Mount on electrical box or surface mount



Jumper Settings



Wiring Diagram



⚠ Optional Network

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