

XMTG-2301-J digital temperature controller

Operation Instruction

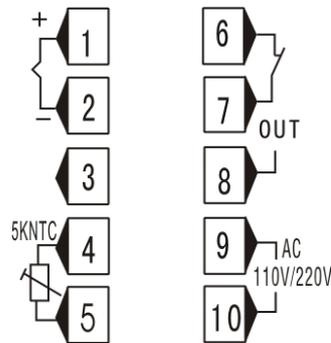
XMTG-2301-J temperature controller adopts digital display of the measured temperature and method of time proportion control. It has high precision、good reliability、strong cushioning、easy installation and other advantages. This controller is widely used as temperature measurement and control automatically in light and heavy industry ,such as ,metallurgy、chemical、electronic、machinery、textile、plastic、refrigeration、medical treatment、electric oven and so on.



A. Technical specification:

1. Input type: J
2. Range: 0~399°C
3. Accuracy: $\leq 1.0\%F.S \pm 1B$
4. Contact capacity: 220VAC, 7A(resistance load)
5. Power supply: AC85~ 242V 50/60HZ
6. Power consumption : < 3W
7. Overall size and installation hole : 48×48×110mm ; 44×44mm
8. Working environment: temperature: 0~50°C; relative humidity: < 85% RH, without corrode gas .

B. Connection Scheme(consult):



C. Method to use:

Connect the power and the sensor according to the connection Scheme, then it displays the actual measured temperature.

The terminals of '1', '2' are input of thermocouple signal, the terminals of '6', '7', '8' are relay control output. When the green light of "OUT" brighten, terminal 7' and 8' are connected and terminal 6' and 7' are disconnected. When the green light of "OUT" goes out, terminal '7' and '8' are disconnected and terminal '6' and '7' are connected. The terminal of '9', '10' are power supply(AC85~242V).

When the actual measured temperature don't enter the proportional band and the setting temperature is higher than the actual measured temperature, the terminal "7" and "8" connect, terminal "7" and "6" disconnect. The load starts heating at this time and its temperature is going up.

When the actual measured temperature dont enter the proportional band and the setting temperature is lower than the actual measured temperature, the terminal "7" and "8" disconnect, terminal "7" and "6" connect. The load does not heat at this time and its temperature is going down.

After the actual measured temperature entry into the proportional band, the relay start opening and closing according to the controlling rule. The higher temperature, the shorter connecting time of relay between terminal "7" and "8 ". Vice versa .The controller controls the temperature by the way of changing the average heating power of load.

D. The maintenance and attention of controller.

1. The controller should be installed in the condition without corrode gas.
2. Thermocouple should be put in the place where it can measure real temperature inside the furnace and has good insulation with heating element of furnace.
3. Before powering on the controller, please check it carefully to see if all connection is correct and if thermocouple can match with input type of controller.
4. When heating initially, although the power of heating element inside furnace has been turned off, the temperature of furnace will keep going up because of the heating inertia inside furnace. So it is better to set about 80% of temperature you want to set normally before powering on the controller every time. After controller carry out "on-off control "for several times, then set temperature value you want to set normally, so as to avoid over surging.
5. If the controller displays abnormally, check the sensor to see if its connection is open circuit or short circuit, also check if the working voltage of controller is normal.