

STEC Industrial Solutions Inc.

Instructions of Hot runner Temperature Controller

STCM15



I 、 Specification

- 1、Temperature control difference: $\pm 1^{\circ}\text{C}$
- 2、Cold junction compensation: $\leq \pm 1^{\circ}\text{C}$ temperature coefficient
- 3、Range of temperature control: K type thermocouple 0–400°C
- 4、Maximum power output: 3KW
- 5、Maximum current output: 15A
- 6、Alarm range: 0–100°C set at discretion
- 7、Application of thermocouple type :K, J type
- 8、Digital PID control
- 9、Operational environment: -10°C—50°C, relative humidity 35–85%RH, non-corrosiveness

II、Function

- 1、Large screen LCD display
- 2、Colored light alarm
- 3、Current and output ratio display
- 4、Fuse damaged tips
- 5、Thermocouple fault detection
- 6、Heating pipe fault detection
- 7、temperature monitor of Silicon controlled rectifier
- 8、Fault detection of Silicon controlled rectifier
- 9、High quality industrial components suitable for any environment
- 10、Output controlled by Linear voltage, protecting the heating pipe
- 11、Maximum current storage
- 12、Over voltage alarm

III、Operating instructions

1、ON/OFF

First, connect with incoming power line and mould cable, and check all the connections. After pressing the “POWER” button, the machine will warm up. The machine will be powered off when it alarms three times with sound and red light. Please refer to ALARM INSTRUCTIONS.

If press the “POWER” button when the machine is running, the control card will stop and boot into standby

NOTE: Please turn off the general power switch if stop using for a long time.

2、Temperature setting

On the control panel, pressing  button or  button, you can choose the required temperature, then press  button to confirm. This temperature will be stored. After pressing  button or  button, LCD screen will display , which means the temperature has been changed without confirmation. After confirmation,  will disappear. Long pressing  button or  button means continuous adding or reducing the temperature.

• 3、Parameter Setting

Parameter list

P1----Auto/Manual set Range: 0-1 0=Auto, 1=Manual

P2----Manual output range:0-100%

P3----Thermocouple type range:0-1, 0=J type, 1=K type

P4----Alarm Range:0-1 0=ON, 1=OFF

P5----Overtemperature range:0-25°C

P6---- Low temperature alarm Range:0-25°C

P7----Temperature correction Range:-15——15°C

P8----Temperature unit Range:0-1, 0=C, 1=F

P9----Control mode Range:0-1, 0= continuous, 1=zero-cross

P10----SCR alarm 1- short circuit, 2- open circuit

P11----Soft start output Range:0-100%

P12----Current/Output Range:0-1 0=Current, 1=Output

P13----PID Control Parameter P Range:0-999

P14----PID Control Parameter I Range:0-999

P15----PID Control Parameter D Range:0-999

P16---- PID Control Parameter D2 Range:0-99

P17----Soft-start time Range:1-200min

P18----Maximum current note: automatic Input

P19---- maximum work current limit Range:1-150. “120” means 12.0A, when current exceeds 12A, the control card will decrease the output to reduce current.

P20---- serial number (shows the temperature zone of control card) Range: 0-99

P21----Backlight Range: 0-255

P22----Load testing Range: 5-12

Press button and button together to enter the setting interface, press button or button to choose the parameter need to modify. Then press button to enter the parameter, press button or button to modify the parameter, press button to confirm.

4、Check the temperature of inside machine and SCR

Press button and button, then press button back to the main menu.

5、Alarm erasure

Press button, the alarm will stop for 3min.

6、 emergency management

When appears on the monitor, please press button and button together to enter the setting menu. Then press button to P10 and press button to confirm. Press button or button to clear P10, press button to confirm.

If appears again after zero clearing, that means the controller has to be repaired.

IV、Icon illustration

-  Thermocouple disconnection,
-  Thermocouple reverse connection
-  Heating pipe disconnection
-  Heating pipe short circuit
-  Fuse damage
-  Manual work
- SOFT Soft-start
-  J type
-  K type
-  Alarm
-  ① SCR short circuit, need repaired
-  ② SCR open circuit, need repaired

Alarm instructions

When the machine is set to auto (P1=0) , then it cannot be switched on for heating rod short circuit, open circuit, thermocouple disconnection, reverse connection and SCR damage. Alarm will be on for three times with sound and red light flashing.

When the machine is set to Manual (P1=1) then it cannot be switched on for heating rod short circuit, open circuit and SCR damage. Alarm will be on for three times with sound and red light flashing.



The machine cannot be switched on when  appears on the LCD monitor. Please enter setting menu to zero-clear P10 and restart the machine. If  appears again on the LCD monitor later, that means the control card must be damaged and need to repair.

The control card will alarm for three times with sound and red back light with Keyboard failure and no display when input voltage exceeds AC260V. Please cut off the input power right away and check the circuit.

V、Responsibility statement

Although we have already designed many protective measures, users should consider the possibility of loss for controller and set certain protective device. We are not liable for any personal and property loss because of controller reliability and other reasons except the controller itself.



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