MTC-H series hot flow channel temperature control box instruction manual Professional manufacturer of hot duct temperature control box



# MTC-H series products I product introduction

# Product name: hot duct temperature



## II product advantages

Mono-unit can support 128 partition control	One-card dual-controlled stable system	
Simple parameter setting, stable and reliable equipment	Online fault detection function, stable operation of equipment	
pecifications and narameters	Tashnisal indicators	
Control tomporature differences + 1°C		

	L.color screen display			
2.Cold-end compensation error: $\leq$ +1°C temperature coefficient	2.Chinese information alarm			
3.Temperature control range K-type force thermoelectric 0-450°C	3.Current and output ratio display			
4.Total output power: 66KW (maximum)	4.Tips for fuse damage			
5.Single maximum output current: 15A	5.Thermal and electrical fault detection			
6.Alarm Fan Guo: 0-100°C free setting	6.Heating pipe fault detection			
7.Suitable for thermocouple model K, type	7.All-industrial electronic components			
8. Working power supply AC220V (three-phase four-wire 380v)	8.Linear voltage control output for better protection			
9. Digital PID adjustment	Heating pipe			
10. Working environment: -10°C-60°C relative temperature,	9.Overvoltage alarm			
35% -85% relative humidity	10.8inch touch screen centralized control (optional)			
11.The maximum number of control circuits in a single unit 128	11. RS485 communication interface (optional)			

# III Foldable display screen of temperature control box



The screen can be folded. A single page of the touch screen operation interface can display 10 temperature control areas, and a single cell can display a temperature control area. In the page, a single temperature control area can be opened or closed, and the temperature control area serial number, actual temperature, setting temperature, operation status, fault and alarm prompt information, replication loop, mold model, current and current output ratio, lock screen with global temperature setting function, semitemperature (insulation) function, and temperature replication function are displayed.

## IV Operation interface



Home page

			1		
参数设置	2.手动输出量 Manual output			2	3
	3.热电偶型号 Thermocouple model		Λ	<b>_</b>	4
ON OFF COPY	4.报警功能 Alarm function	4	4	Э	0
	5.超温智振范围 Over temperature alarm range		7		
PV °F	6.低温警报范围 Low temperature alarm range		/	Ø	9
SV °F 9.连线 10.恢 11.取	7.温度修正 Temperature correction				
	9.连续/过零 Continuous/zero crossing	401	74	0	<b>热</b> 字
	10.软启动时间 Soft start time	De	lete		Enter
	11.软启动输出量 Soft start output			T	
<ul> <li>         当投手実当度         Control cards surface temp         </li> <li>         反位          反位 Reset      </li> </ul>	13.P参数 PID control parameter P			_	
	14.1参数 PID control parameter I		)+		D-
	15.D参数 PID control parameter D				_
	16.D2参数 PID control parameter D2				
	19.电流限制 Current limit				
	23.短路检测 Short circuit detection			返回 Return	
	24.跟脑 Follow				

Parameter interface



## Temperature setting interface



# Global settings



#### The system is not set



# > Operation

Turn on all empty lights and make sure that all the power indicator lights of the temperature control card are on.

# > Switch

Press the "On/off" button on the home page of the screen to show that you want to open the system, click the "Yes" button, and the system is on. Press the "on/off" button on the home page of the screen, and it shows that you want to close the system. Click the "Yes" button, and the system is closed.

### > Temperature setting

Press the raised button next to the loop "SV" that needs to be set, the screen jumps out of the input keyboard interface, manually enter the required temperature, and then press the "Confirm" key to complete the temperature input setting of this circuit."

### > Fast temperature setting

If you need to set multiple loops to the same temperature: for example, set the same temperature for loops 1 to 10. After the temperature of the first circuit is set, copy loop 1 will appear at the bottom of the screen (press the "COPY" key to cancel the copy command), and then press the "COPY" key of the 2- The 9 loop is quickly set at the same temperature as the 1st circuit. Press the global setting button on the homepage to enter the global temperature setting interface, which can set the temperature of all loops at one time.

### Global temperature setting

Click the global settings button on the homepage to enter the settings. Click PV/SV on the page, enter the parameters corresponding to PV/SV, and click OK to set up.

#### > Parameters are not set

Press the raised button next to the loop "SV" that needs to be set, the screen jumps out of the input keyboard interface, and click 'parameters' to enter the parameter setting interface. Press the up arrow or down arrow to move the cursor to select the required parameters. After selecting the required parameters, you can press the numeric keyboard or the 'D+, D-' key to adjust the parameters.

#### Restore factory settings

Press the 'Restore' key to return to the initial value.

#### System settings

Press the 'System Settings' button, enter the system settings interface, and press the up or down arrow to move the cursor to select the required parameters. After selecting the required parameters, you can press the numeric keyboard or 'D+, D-' keys to adjust the parameters. (Language and mold model settings can be set)

# Mold model setting, mold model setting, language setting, address setting, baud rate setting, automatic lock screen setting, °C or °F switching

Press the system button, press the arrow up or down key, select parameter 1/parameter 2/parameter 3/parameter 4/parameter 5/para 6, and then press D+ or D- to set the temperature switch of mold model/language/address/baud rate/automatic lock screen/ $\mathbb{C}$  and  $\mathbb{F}$ .

#### Global settings

Click the Global Settings button on the main page to enter the settings. Click the global on or global off button to turn on or off the power supply in all temperature control areas of the device. Click the TCJ or TCK button to switch the thermocouple models in all temperature control areas of the equipment to type J or K.

#### Common faults

1. After turning on the air switch, the temperature control card screen emits a continuous red alarm sound zero line and the fire line is reversed or lacks zero line.

2. After booting, the temperature control card makes a continuous alarm sound. The thermocouple is disconnected, and the heater is short-circuited or open. Please check the thermocouple and Heater or check whether the connection cable is loose.

3. After starting up, the temperature keeps rising, and the output current remains unchanged until the high-temperature alarm silicon control short circuit and control card appear It needs to be repaired.

4. The temperature control is unstable and the output current value fluctuates greatly and there is a lack of zero wire. Please check the power supply plug to troubleshoot.

5. If the POWER signal light of the temperature control card is not on, please check whether the power supply is turned on or whether there is a lack of phase.

6. If the startup prompts the heating short circuit, please detect whether the temperature sensor and heater are reversed. If there is no reverse connection, just increase the P23 parameter.

7. If the temperature control is unstable, the P17 can be turned on.

#### Precautions

1. Before replacing the mold and pulling out the connection cable, please turn off the air switch on the back plate of the temperature control box.

2. This product is a metal shell, which needs to be well grounded to prevent electric shock.

3. If you encounter an unsolvable fault, please do not disassemble the machine by yourself. You can seek the help of professional technicians.

4. Before connecting the mold, please check the wiring diagram of the temperature control box to ensure that it is consistent with the mold wiring diagram before starting up.

#### Control parameter table

- P1 mode setting automatic/manual
- P2 manual output 0%-100%
- P3 model J/K
- P4 alarm function alarm/disable
- P5 over-temperature range 0-50℃
- P6 Low temperature range 0-50℃
- P7 temperature correction −50°C−50°C
- P8 temperature unit℃/°F
- P9 signal output mode continuous/pulse
- P10 soft start time 0-99min
- P11 soft start output 0-100%
- P12 temperature compensation value ambient temperature (cannot be set)
- P13 P parameter initial value (can be set)
- P14 I parameter initial value (can be set)
- P15 D parameter initial value (can be set)
- P16 D2 parameter initial value (setable)
- P17 PID mode position/self-tuning/incremental (if you encounter unstable temperature control, you can turn on the self-tuning function)
- P18 Serial Number 001-128
- P19 Current Limit 5.0A-16.0A
- P20 Restore Factory Settings Cancel/Reset
- P21 communication settings cancellation/communication (touch screen version use)
- P22 Language Settings Chinese/EN
- P23 short-circuit detection 20-99 (if you encounter a boot prompt heater short-circuit alarm prompt, just turn this parameter up)
- P24 follow disable/0-128 (touch screen version use)

#### Distribution of power lines

Red (3 pieces)—Fire Blue (1 piece)--zero line Yellow and green (1)--ground wire

