

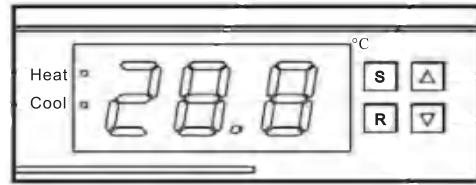
**Intelligent temperature controller, Energy-saving and practicality**

microcomputer temperature controller  
《User manual of MH1210A》

Thank you for choosing Shenzhen "MEIHANG TECHNOLOGY" microcomputer temperature controller. This product gather a wide range of modern heating and cooling technology, small size, simple operation, accurate measurement and anti-interference ability, etc. It suits most users in different environments for automatic intelligent control system of many kinds of refrigeration, heating equipment. Refrigeration and heating mode could be set through the menu, the procedure has been set the power outage permanent memory function.

**specifications:**

- 1.working voltage : See the product information ;
- 2.measurement range:-40℃~120℃; measurement error:  
±0.5℃;
- 3.control range : -40℃~120℃; separation rate : 0.1℃;  
slewing range of temperature : it could be adjusted in the range of 1~30℃;
- 4.temperature sensor : NTC 25℃=10K B3435 ±1%  
(1 miter length, no positive or negative) ;
- 5.output load : normally open 10A/AC220V ;
- 6.working environment : temperature : - 20℃~70℃ ;  
humidity : 90%RH none moisture condensation ;
- 7.dimension of whole unite:75(W)x34.5(H)x85(W)mm;
- 8.trepanning dimension:71(W)x29(H);

**sketch figure:****Operation instruction:**

Press "S" button for 3s get into the procedure menu code mode, display the code "HC". Press "△" or "▽" for cyclical selection of parameter code of "HC-CP-LA-HA-PU-CA". To enter a code, press the "S" button, press the "△" button or the "▽" button to change to the desired data and press "S" to save and exit;

Control temperature:press S button(short press less than 2 seconds),the screen will flash,then press up or down button to the temperature you want

Control the temperature set: Short press S key (less than 2 seconds) display blink and it is the default setting. Press "△" or "▽" to change the data and save automatically.(press on "△" or "▽" for 2s or more to increase the adjusting speed )

heating control: when the temperature control mode ( code is HC) was H, e.g. the setting control temperature is 28℃ , slewing range of temperature is -2℃ , when the environment temperature ≥ setting temperature (28℃), thereelay will switch off and stop the output load; when the environment temperature ≤ setting temperature (28℃ ) - slewing range of temperature (-2℃ ) and set "delayed start" before, the relay will switch on and output load again. (if the delayed start function doesn't need, set the delayed start (code PU) to 0)

refrigeration control: when the temperature control mode (code is HC) was C, e.g. the setting control temperature is 28℃, slewing range of temperature is -2℃, when the environment temperature ≤ after setting "delayed start" time, the relay will switch on and sart output load.(suggest "delayed start" time to the default setting time to protecting the compressor, please set the (code PU) to 0) if it doesn't need:

Code	code instruction	setting range	default data	unit
HC	heating/refrigeration	H/C	C	/
CP	slewing range of temperature	1~30	2	℃
LA	floorlevel	temperature control	-40	℃
HA	up limit	temperature control~110	120	℃
PU	delayed start	0~10	2	minutes
CA	tem. correction	-10~10	0	℃

**Note:**

LA floor level and HA the up limit are not the temperature control parameter adjustment, change will reduce the temperature control range.

Back to default setting: press the "R" button for 3s and display blink 5 times, all parameters back to default setting;

Parameter lock: press "▽" for 3s and blink, display "OFF", means the parameter were locked by the user, this method is the same when display "ON" means the parameter were unlocked by the user.(after parameter locking, user could check but not change, the function of temperature adjust is valid)

**Fault tips:**

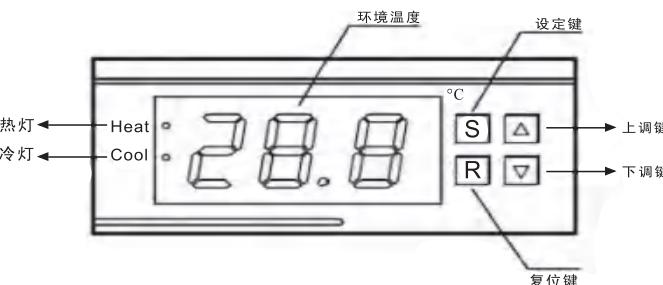
When the sensor short circuit or detect the environment temperature is higher than the upper temperature limit of 110degrees, delink and display HHH and stop the output load; When the sensor works normal and detect the environment temperature is lower than floor temperature limit of -50 degrees, blink and display LLL and stop the output load.

**智能温控 节能实用****微电脑温度控制器**

首先感谢您选购本公司微电脑温度控制器。本产品汇集广泛的现代加热及制冷技术，具备体积小，操作简单，测、控温准确和抗干扰能力强等优点。适合大多数用户在不同环境下用于各种制冷、加热设备的全自动智能化控制系统。支持制冷与加热模式可通过菜单设定，具备已设参数断电永久记忆功能。

**技术参数：**

1. 工作电压参考产品外壳上的标注；
2. -40℃~120℃：测量误差：± 0.5℃；
3. -40℃~120℃：控温精度：1℃ 显示精度：0.1℃；温度回差：1~15℃之间可调；
4. NTC 25℃=10K B3435 ±1% (1米线长, 不分正负)；
5. 10A/AC220V；
6. 工作环境：温度：- 20℃~70℃，湿度：90%RH无结露；
7. 75 (宽) × 34.5 (高) × 85 (深) mm；
8. 71 (宽) × 29 (高) 。

**面板示意图：**

4.通过△键直到看见“CP”轻按“S”按键查看回差温度 并设置为2℃

5.所有设置完成按后 “ R”退出设置并保存

\*设置举例 (制冷模式1℃~5℃, 首先设置停止温度为1℃, 再设置模式为制冷, 再设置回差为4, 《1+4=5》)

- 1.在正常上电显示当前温度界面下,轻按“S”按键并设置温度为1℃
- 2.长按“S”≥3秒 进入界面显示“HC”松开

3.显示“HC”就是模式代码请参考代码表格, 此时“S”按键进入模式选项再按键通过△▽按键成制冷模式“C”完成后按“S”确认

- 4.通过△键直到看见“CP”轻按“S”按键查看回差温度并设置为4℃
- 5.所有设置完成按后 “ R”退出设置并保存

注：LA最低下限和HA最高上限非控制温度参数调节只是显示停止温度的改动范围。

注：LA最低下限和HA最高上限非控制温度参数调节，若更改则缩小控制温度范围。

恢复出厂值：按住R键持续3秒显示闪烁5次后，此时用户所有已设参数将恢复出厂默认值。

参数锁定：按▽键持续3秒闪烁显示“OFF”表示用户已设参数被锁定，按此方法同样操作闪烁显示“ON”表示用户已设参数锁定被解除。（参数锁定后用户只能查看不能修改，但控制温度调节仍有有效）。

**故障提示：**

当传感器短路或检测到环境温度高于温度上限120度时，闪烁显示HHH并关闭输出负载；当传感器开路或检测到环境温度低于温度下限-40度时，闪烁显示LLL 并关闭输出负载。

**Note matters:**

1. To prevent high-frequency interference, do not install the sensor line bundled with the power line and loaded equipment line, but should be separated wiring;
  2. Supply voltage must be consistent with the rated voltage and the deviation is less than ± 10%. Strict distinction between sensor installation, power line and loaded output interface;
  3. The temperature control host machine cannot be installed in the place where is dripping water, or the elderly, children could be touched;
  4. The wiring should be checked whether the line is correct, to avoid accidentally burn of temperature control host machine and loaded equipment, installed applications supporting protection back cover obscured;
- Installation wiring diagram:

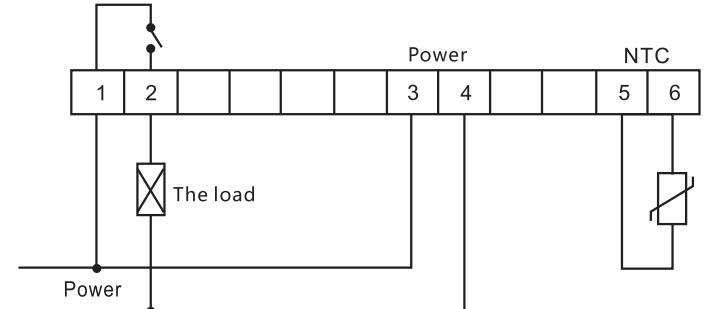
Make sure to install the loaded equipment's voltage is identify with temperature control host machine's voltage, otherwise the wire connection cannot according to this figure.

**菜单代码表：**

代码	代码说明	设定范围	出厂值	单位
HC	加热/制冷	H/C	H	无
CP	温度回差	1~30	2	℃
LA	最低下限设置	-40~控制温度	-40	℃
HA	最高上限设置	控制温度~120	120	℃
PU	延时启动	0~10	0	分钟
CA	温度校正	-10~10	0	℃

**注意事项：**

1. 为防止高频干扰，安装时传感器线不可与电源线和负载设备线捆绑在一起，需分开独立布线；
2. 供电与主机标注电压须一致，额定电压值偏差不大于±10%。安装时严格区分传感器、电源线和负载输出接口；
3. 温控器主机不能安装在有滴水、老人、小孩触手可及的地方；
4. 接线后应检查线路是否正确后在通电，以免不慎烧坏温控器和负载设备，安装后应用配套的保护后盖遮挡；

**操作说明：**

1.控制温度设置：正常显示温度的情况下 轻按S按键<2秒，此时显示控制温度，按△键或▽把温度设置到想要的温度（此温度为停止温度）

2.长按S键持续3秒进入菜单代码模式，即显示代码HC。此时按△键或▽键可循环选择HC-CP-LA-HA-PU-CA参数的代码，如需进入某项代码中请按S键进入当前代码参数，在进入代码参数时按S键退出当前代码，按△键或▽键变更所需数值后按S保存并退出；

\*设置举例 (加热模式38℃~40℃：首先设置停止温度为40℃，再设置模式为加热，再设置回差为2，《40-2=38》)

- 1.在正常上电显示当前温度界面下,轻按“S”按键 并设置温度为40℃

2.再按S≥3秒 进入界面显示“HC”松开按键。

3. 显示“HC”就是模式代码请参考代码表格, 此时“S”按键进入模式选项，通过△▽按键选择加热模式“H”完成后按“S”确认

**安装接线图：**

安装接线时请确保负载本身工作电压与温控器标注电压属于同等电压值，否则不能照着此图进行连线。

