

新版 MC-35MR-4MT-F700-FX-C 热电偶测温说明

Thermocouple temperature measurement instructions

一、功能特性 (Function Characteristics)

1、支持 4 路温度测量

Supports 4-way temperature measurement;

2、支持 4 路 PID 温度控制

Supports 4-way PID temperature control;

3、支持多种规格的热电偶探头输入

Supports multiple specifications of thermocouple probe inputs;

4、可支持多种两线制 PT100 输入（需要联系厂家修改）

Supports multiple two wire PT100 inputs (special instructions to be modified by the factory);

5、热电偶输入支持内部冷端补偿，cu50 铜电阻补偿，冰点补偿以及恒温槽补偿

Thermocouple input supports internal cold junction compensation, cu50 copper resistance compensation, freezing point compensation, and constant temperature bath compensation;

6、支持滤波系数调节，滤波系数越大，测量值越稳定，温度响应越慢

Support filtering coefficient adjustment. The larger the filtering coefficient, the more stable the measured value, and the slower the temperature response

7、支持输入温度平移修正，可修正补偿传感器或则冷端补偿的误差

Supports input temperature translation correction, which can correct errors in compensating sensors or cold end compensation

二、模块使用方法(Module Usage)

1、4 路温度测量值 PV 存放在 D114 - D117，PV 带一位小数

4 temperature measurement values PV are stored in D114- D117, PV with one decimal place;

2、4 路温度目标值 SV 设定地址为 D128 - D131，自带 PID 功能不需要调节参数，设置好目标温度自动开始调节温度

The 4-way temperature target value SV is set to address D128- D131, with built-in PID function that does not require parameter adjustment. Once the target temperature is set, it will automatically start adjusting the temperature;

3、为了避免误操作，设置滤波参数（D133），探头类型（D134），温度平移修正（D135）之前需要将数值 42405（0xa5a5）传入 D132 以使能参数设置

To avoid misoperation, before setting the filtering parameters (D133), probe type (D134), and temperature translation correction (D135), the value 42405 (0xa5a5) needs to be passed into D132 to enable parameter settings;

4、滤波参数（D133）默认为 0，设置范围为 0 - 39，若要设置请先使能 D132

The filtering parameter (D133) defaults to 0, with a setting range of 0-39. To set it, please enable D132 first;

5、温度平移修正设置值为-1999 ~ 4000（单位 0.1℃），若要设置请先使能 D132

The temperature translation correction setting is -1999-4000 (unit: 0.1 °C). To set it, please enable D132 first;

6、支持多种热电偶探头输入，出厂默认为 K 型热电偶输入，若要修改成其他探头类型需要先使能 D132，然后在 D134 中设置下表的序号，等待 5 秒后将 D132 设为 0，完成设置。

Supports multiple thermocouple probe inputs, with the factory default being K-type thermocouple input. To modify to other probe types, you need to first enable D132, and then set the serial number in the table below in D134. Wait for 5

seconds and set D132 to 0 to complete the setting;

7、探头类型如下表:

The types of temperature probes are shown in the table below:

序号 No.	探头类型 Type	测温范围 Measuring Range
0	K	-200 ~ +1300 °C
1	S	-50 ~ +1700 °C
2	R	-50 ~ +1700 °C
3	T	-200 ~ +350 °C
4	E	0 ~ +800 °C
5	J	0 ~ +1000 °C
6	B	+200 ~ +1800°C
7	N	0 ~ +1300°C
8	WRe3-WRe25	0 ~ +2300°C
9	WRe5-WRe26	0 ~ +2300°C
10	NI120	-50 ~ +150°C
11	CU50	-50 ~ +150°C
12	PT100	-200 ~ +800°C

8、若机器安装到控制柜里面导致测量温度比环境温度高时，可在冷端 KT5+,KT5-接入 CU50 温度传感器，并放置到和环境温度差不多的地方可解决此问题。

If the machine is installed in the control cabinet and the measurement temperature is higher than the ambient temperature, the problem can be solved by connecting the CU50 temperature sensor to the cold end KT5+or KT5- and placing it in a place similar to the ambient temperature;

9、冷端补偿端子不接线的时候为内部自动补偿，短接为冰点补偿。补偿可选 cu50 铜电阻补偿，或者恒温槽补偿

When the cold end compensation terminal is not connected, it is for internal automatic compensation, and when short circuited, it is for freezing point compensation. Compensation options include cu50 copper resistance compensation or constant temperature bath compensation;

三、与第一版差异: (Differences From The First Edition:)

1、比第一版温度更稳定，精度更高

More stable temperature and higher accuracy than the first version;

2、兼容第一版的接线模式

Compatible with the first version of the wiring mode;

3、无需 M 点控制 PID 输出，简化操作

No need to use M-address to control PID output, simplifying operation;