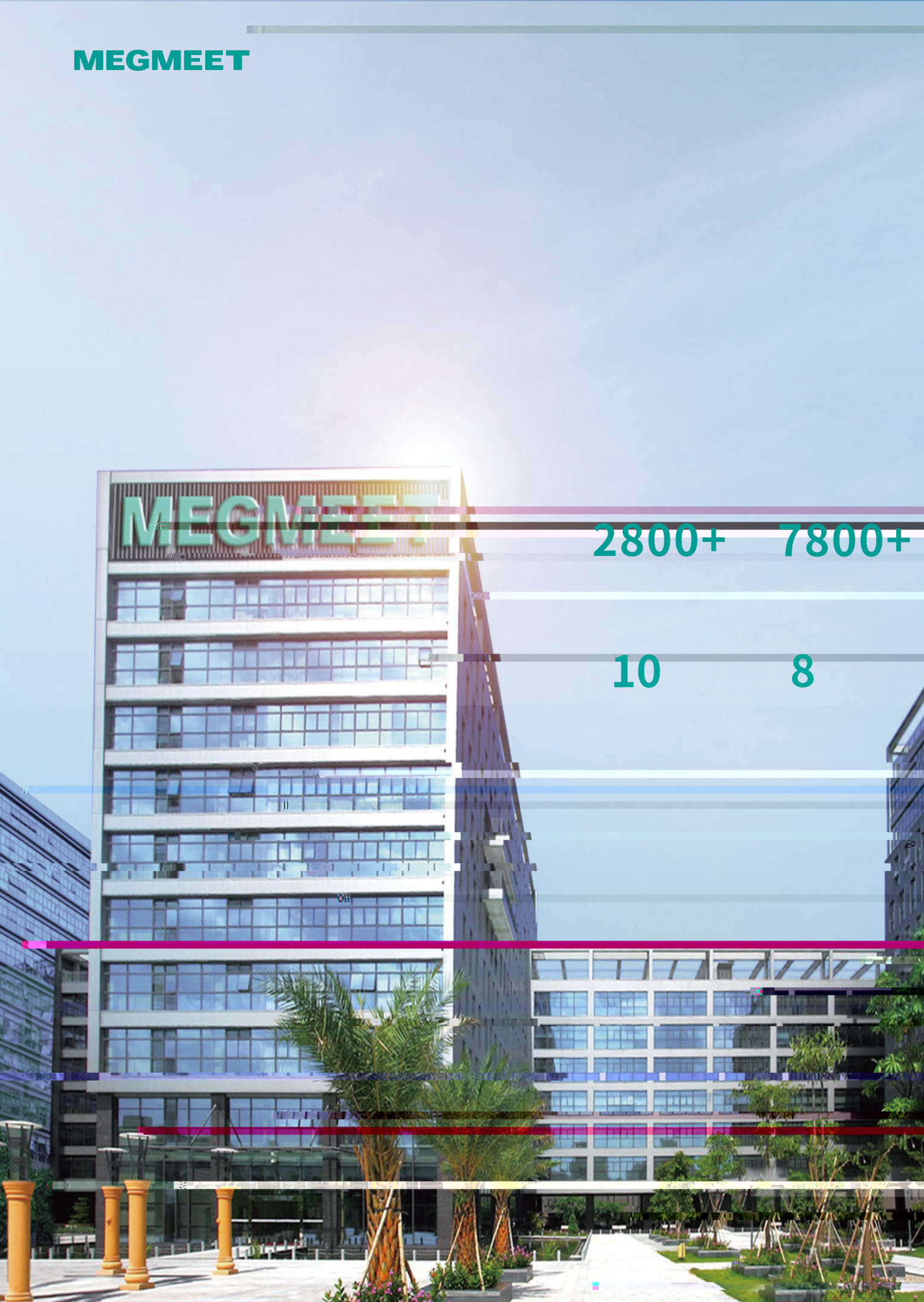






# Contents

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- Cable List

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MX600 Series Medium PLC

MX600 series intelligent controller breaks through the 256-axis  $\mu$ s-level synchronous control, supports EtherCAT, EtherNET / IP, ProfiNet and other bus protocols, and the redundant architecture ensures 99.999 % extreme condition stability. It covers high-precision scenarios such as lithium battery winding, semiconductor, photovoltaic, etc., and synchronously meets the ms-level sequential control requirements of 3C assembly, five-axis machining and high-speed packaging.

Product Feature

- Support 16-axis/250us, 64-axis/500us and 256-axis/2ms sync cycles, and 20us jitter to ensure high-precision control.

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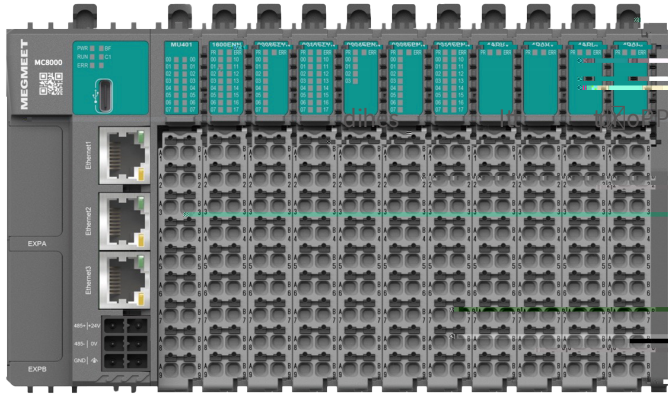
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MC8000 Series Medium PLC \*

MC8000 series product is a new generation of high-performance and cost-effective medium PLC based on the mOPAX platform of MEGMEET. It is fully compatible with the IEC61131-3 programming specification and supports LD, ST, SFC, CFC, FBD, and IL programming languages; adopts the blade-type module design, and supports multi-core processor. Based on multi-bus protocols such as EtherCAT and Profinet, a multi-axis motion control system is constructed, to meet the high-speed response requirements of intelligent devices.



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Product Feature

Strong expansion & networking

- Expand up to 32 modules, support the expansion of digital, analog, CAN, RS485, RS232, etc.
- Full protocol compatibility, support Modbus/ EtherCAT/EtherNet IP/Profinet and others.

Precise Multi-axis control

- 1ms/16-axis sync, support 16/32/64-axis EtherCAT control

Ultra-large capacity

- Support 10M program capacity, 20M data capacity, 512KB retention, for complex logic and data processing

Reliably excellent performance

- Four-core A55 processor, communication, logic and algorithm are completely independent.
- 8\*200K high-speed input, 8\*200K pulse output (single pulse, pulse + direction, AB phase, FWD+REV, etc.)

Flexible & convenient operation

- 12mm machine body, saving space
- PUSH In terminal, easily wiring and replacing without tools



**MEGMEET**

[illegible][illegible]

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

MU300 Series Small PLC

E-gear and other control function, to achieve high-speed operation and efficient communication, flexible configuration and



Product Features

- High-speed operation and efficient communication
- Flexible configuration and

Technical Specifications

- $\mu$
- Communication port: 1\*EtherCAT+2\*EtherNet,

Performance Advantages

- significantly improved based on ARM+FPGA
- Support 8-channel 200K high-speed pulse output and single-phase pulse count, or 4-channel 100K AB-phase, CW/CCW, pulse+direction
- 



MU200 Series Small PLC

MU200 new generation of small PLC uses ARM+FPGA dual-core processor for the powerful processing function,



Product Features

- 
- 

Technical Specifications

- 
- 

Performance Advantages

- significantly improved based on ARM+FPGA
- Support up to 12-channel 200K high-speed pulse output
- 

Technical Specifications

- Convenient hardware configuration
- 
- 
- 
-

MC700 Series Motion Controller















6-channel 200K high-speed pulse inputs and 6-channel 200K pulse output

Ethernet, 2\*RS485, RS232, SD card, etc.

320K-step program capacity, 2M Byte C language, 2M Byte



[illegible]

※MC280-specific function

[illegible]

※MC280-specific function

MC200 Series Small PLC



Figure 1-1 MC200 Series Small PLC

General Specifications

- Program capacity: 12K
- $\mu$

Input Specifications

- 
- Input filter protection and power loss protection
- 

Output Specifications

-



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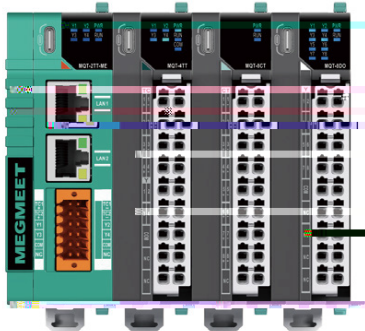
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MQT Series Temperature Controller

modules flexibly and integrating internal intelligent PID algorithm; it has the advantages of cascade, high precision,



- High precision:
- High performance:
- Strong function:
- Simple installation:
- Complete module:

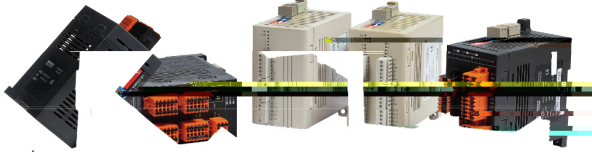


| Item                | escription                                                                                               |                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Power supply        | 24V C (-15% ~ 20%)                                                                                       |                                                                                            |
| Signal input        | Input type                                                                                               | Thermocouple: K、J、E、N、T、R、B (For all channel)                                              |
|                     |                                                                                                          | Thermal resistance: Pt100、JPt100、Cu100、Ni120 (For all channel)                             |
|                     | Precision                                                                                                | Thermocouple: 0.15% (Full scale) + cold compensation                                       |
|                     |                                                                                                          | Thermal resistance: 0.3% (Full scale)                                                      |
|                     | Sampling cycle                                                                                           | 25ms/channel, 100ms/8 channels, 100ms/4 channels                                           |
| Control output      | Output form                                                                                              | Transistor output (SSR drive output), relay output, current output, voltage output         |
|                     | Control action                                                                                           | Manual, ON / OFF, single PI , heating & cooling PI , position proportional PI              |
| Alarm output        | Alarm form                                                                                               | 14 alarms, such as upper and lower limit alarm, deviation alarm and so on.                 |
|                     | Output form                                                                                              | Transistor and relay output (output state can be directly controlled by writing registers) |
|                     | Output channel                                                                                           | 8 channels                                                                                 |
| igital input        | Input form                                                                                               | Transistor input                                                                           |
|                     | Input channel                                                                                            | 4 channels                                                                                 |
| Control cycle       | 0.1s - 10s or 1s - 100s                                                                                  |                                                                                            |
| Acquisition channel | 4 channels and 8 channels                                                                                |                                                                                            |
| Isolation           | Exist between power and communication, power and channel, communication and channel, channel and channel |                                                                                            |
| Communication port  | RS485/Modbus-TCP/EtherNet/EtherCAT/Profinet                                                              |                                                                                            |
| Generals            | Ambient temperature                                                                                      | Working: -20 ~ 60 °C, storage: -40 ~ 70 °C                                                 |
|                     | Ambient humidity                                                                                         | Working: 10 ~ 90 % RH (no condensation), keeping: 5 ~ 95 % RH (no condensation)            |
|                     | Altitude                                                                                                 | Below 2000m                                                                                |
|                     | Protection level                                                                                         | IP20                                                                                       |
| C & S               | Conform to IEC/EN 61326-1 (For use in industrial locations) ;CE                                          |                                                                                            |

| Model                      | Acquisition channel | Temperature control output                        | Alarm output     | Input type          |
|----------------------------|---------------------|---------------------------------------------------|------------------|---------------------|
| Communication module       |                     |                                                   |                  |                     |
| M <sup>Q</sup> T-2TT-ME    | 2-CH                | Modbus TCP/IP/Ethernet                            | Transistor(4-CH) | TC                  |
| M <sup>Q</sup> T-2RT-ME    | 2-CH                | Modbus TCP/IP/Ethernet                            | Transistor(4-CH) | RT                  |
| M <sup>Q</sup> T-2TT-ET    | 2-CH                | EtherCAT从站                                        | Transistor(4-CH) | TC                  |
| M <sup>Q</sup> T-2RT-ET    | 2-CH                | EtherCAT从站                                        | Transistor(4-CH) | RT                  |
| M <sup>Q</sup> T-2TT-RS    | 2-CH                | Modbus RS485                                      | Transistor(4-CH) | TC                  |
| M <sup>Q</sup> T-2RT-RS    | 2-CH                | Modbus RS485                                      | Transistor(4-CH) | RT                  |
| M <sup>Q</sup> T-2TT-PN    | 2-CH                | Profinet                                          | Transistor(4-CH) | TC                  |
| M <sup>Q</sup> T-2RT-PN    | 2-CH                | Profinet                                          | Transistor(4-CH) | RT                  |
| Temperature control module |                     |                                                   |                  |                     |
| M <sup>Q</sup> T-4TT       | 4-CH                | Modbus RS485                                      | Transistor(4-CH) | TC                  |
| M <sup>Q</sup> T-4TA       | 4-CH                | Modbus RS485                                      | Analog(4-CH)     | TC                  |
| M <sup>Q</sup> T-4TR       | 4-CH                | Modbus RS485                                      | Relay(4-CH)      | TC                  |
| M <sup>Q</sup> T-4RT       | 4-CH                | Modbus RS485                                      | Transistor(4-CH) | RT                  |
| M <sup>Q</sup> T-4RA       | 4-CH                | Modbus RS485                                      | Analog(4-CH)     | RT                  |
| M <sup>Q</sup> T-4RR       | 4-CH                | Modbus RS485                                      | Relay(4-CH)      | RT                  |
| Expansion module           |                     |                                                   |                  |                     |
| M <sup>Q</sup> T-8 I       | 8-CH                | 8-channel digital input                           | -                | igital (8-CH)       |
| M <sup>Q</sup> T-8 O       | 8-CH                | 8-channel digital output                          | igital (8-CH)    | -                   |
| M <sup>Q</sup> T-8CT       | 8-CH                | 8-channel current detection                       | -                | Transformer current |
| M <sup>Q</sup> T-8 M       | 8-CH                | 4-channel digital input, 4-channel digital output | igital (4-CH)    | igital (4-CH)       |
| M <sup>Q</sup> T-8AI       | 8-CH                | 8-channel analog current input                    | -                | Analog (8-CH)       |
| M <sup>Q</sup> T-8AV       | 8-CH                | 8-channel analog voltage input                    | -                | Analog (8-CH)       |
| M <sup>Q</sup> T-8AO       | 8-CH                | 8-channel analog output                           | Analog (8-CH)    | -                   |

MTC/MTCW/MTCV Series Temperature Controller

MTC/MTCW/MTCV series products are multi-channel and high-precision temperature controllers, which are suitable for various occasions of temperature control. Its main feature is compatible with TC and RTD, high measure accuracy; high integration (one module supports up to 12 channels of temperature control and 16 channels of measurement), space saving, easy data exchange, remote monitoring, and high cost performance.



Dedicated software:

Dual-PID function:

High precision

Multi-way control

Easy exchange

Provide special software - MtcCompanion

Heating&cooling dual-PID control function, 14 alarms like upper and lower limits, deviation, etc

Intelligent self-tuning and multi-stage temperature setting functions to achieve high-precision temperature control

Integrated multi-channel temperature control to centralize data management

Data exchange easily between thermostat and PLC, thermostat and HMI, thermostat and computer through Ethernet and serial port

| Item                | escription                                                                                                                                                                                           |                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Power supply        | 24V C (-15% ~ 20%)                                                                                                                                                                                   |                                                                                                |
| Signal input        | Input type                                                                                                                                                                                           | Thermocouple: K、J、E、N、T、R、B (For all channel)                                                  |
|                     |                                                                                                                                                                                                      | Thermal resistance: Pt100、JPt100、Cu100、Ni120 (For all channel)                                 |
|                     | Precision                                                                                                                                                                                            | Thermocouple: 0.2% (Full scale) + cold compensation      Thermal resistance: 0.3% (Full scale) |
|                     | Sampling cycle                                                                                                                                                                                       | 25ms/channel, 100ms/8 channels, 100ms/4 channels                                               |
|                     | Output form                                                                                                                                                                                          | Transistor output (SSR drive output), relay output, current output, voltage output             |
| Control output      | Control action                                                                                                                                                                                       | Manual, ON / OFF, single PI , heating & cooling PI , position proportional PI                  |
|                     | Alarm form                                                                                                                                                                                           | 14 alarms, such as upper and lower limit alarm, deviation alarm and so on.                     |
| Alarm output        | Output form                                                                                                                                                                                          | Transistor and relay output (output state can be directly controlled by writing registers)     |
|                     | Output channel                                                                                                                                                                                       | 8 channels                                                                                     |
| IO input            | Input form                                                                                                                                                                                           | Transistor input                                                                               |
|                     | Input channel                                                                                                                                                                                        | 4 channels                                                                                     |
| Control cycle       | 0.1s - 10s or 1s - 100s                                                                                                                                                                              |                                                                                                |
| Acquisition channel | 4 channels and 8 channels                                                                                                                                                                            |                                                                                                |
| Isolation           | Exist between power and communication, power and channel, communication and channel, (MTCV)channel and channel                                                                                       |                                                                                                |
| Communication port  | MTC/MTCV: One isolated RS485 serial port; support MΩ BUS slave and MCBUS slave protocol<br>MTCW: One isolated + one non-isolated RS485 serial port, one Ethernet port; support MΩ BUS slave protocol |                                                                                                |
| Generals            | Ambient temperature                                                                                                                                                                                  | Working: -20 ~ 60 °C, storage: -40 ~ 70 °C                                                     |
|                     | Ambient humidity                                                                                                                                                                                     | Working: 10 ~ 90 % RH (no condensation), keeping: 5 ~ 95 % RH (no condensation)                |
|                     | Altitude                                                                                                                                                                                             | Below 2000m                                                                                    |
|                     | Protection level                                                                                                                                                                                     | IP20                                                                                           |
| C & S               | Conform to IEC/EN 61326-1 (For use in industrial locations) 、UL61010-1; CE、UL                                                                                                                        |                                                                                                |

MTC series

| Model      | Acquisition channel |                                                                                                  |                            |        |
|------------|---------------------|--------------------------------------------------------------------------------------------------|----------------------------|--------|
| MTC-04-NT  | 4-CH                | Transistor (4-CH)                                                                                | Flag bit                   | TC, RT |
| MTC-08-NT  | 8-CH                | Transistor (8-CH)                                                                                | Flag bit                   | TC, RT |
| MTC-04-NTT | 4-CH                | Transistor (4-CH)                                                                                | Transistor(8-CH), flag bit | TC, RT |
| MTC-04-NTR | 4-CH                | Transistor (4-CH), Relay (8-CH)                                                                  | Relay(8-CH), flag bit      | TC, RT |
| MTC-04-NVT | 4-CH                | Transistor (4-CH)<br>Current(8-CH, 0-20mA or 4-20mA)<br>Voltage(8-CH, 0-1V, 0-5V, 0-10V or 1-5V) | Transistor (4-CH)          | TC, RT |

MTCW series (Ethernet 2\*RS485)

|             |       |                                           |                             |                                      |
|-------------|-------|-------------------------------------------|-----------------------------|--------------------------------------|
| MTCW-04-NTT | 4-CH  | Transistor (4-CH)                         | Transistor (4-CH), flag bit | TC, RT                               |
| MTCW-04-NI  | 4-CH  | Current (4-CH, 0-20mA or 4-20mA)          | Flag bit                    | TC, RT                               |
| MTCW-04-NV  | 4-CH  | Voltage (4-CH, 0-1V, 0-5V, 0-10V or 1-5V) | Flag bit                    | TC, RT                               |
| MTCW-08-NN  | 8-CH  | -                                         | Flag bit                    | TC, RT                               |
| MTCW-08-NI  | 8-CH  | Current (8-CH, 0-20mA or 4-20mA)          | Flag bit                    | TC, RT                               |
| MTCW-08-NV  | 8-CH  | Voltage(8-CH, 0-1V, 0-5V, 0-10V or 1-5V)  | Flag bit                    | TC, RT                               |
| MTCW-08-NTT | 8-CH  | Transistor (8-CH)                         | Transistor (8-CH), flag bit | TC, RT                               |
| MTCW-12-NT  | 12-CH | Transistor (12-CH)                        | Flag bit                    | TC, RT                               |
| MTCW-16-NN  | 16-CH | -                                         | Flag bit                    | TC, RT                               |
| MTCW-08-CT  | 8-CH  | Transistor (8-CH)                         | Flag bit                    | Current transformer (8-CH)<br>TC, RT |
| MTCW-08-NT  | 8-CH  | Transistor (8-CH heating, 8-CH cooling)   | -                           | TC, RT                               |

MTCV series (Channel isolation RS485)

| MTCV-16-NT | 16-CH | Transistor (16-CH) | Flag bit | TC, RT |
|------------|-------|--------------------|----------|--------|
| MTCV-08-NT | 8-CH  | Transistor (8-CH)  | Flag bit | TC, RT |

MTCE Series Temperature Controller

MTCE series product, as a multi-channel high-precision EtherCAT temperature controller, are adapted to various mainstream master stations. Its main feature is compatible with thermocouples and thermal resistors, high measurement accuracy, feature-rich, user-friendly. It has the characteristics of high integration, space saving, easy data exchange, remote monitoring, and high cost performance.

Networking capacity

EtherCAT

High precision

Measure accuracy: full scale of  $\pm 0.15\%$  ; control accuracy:  $\pm 0.2^{\circ}\text{C}$

High performance

0.1s sampling cycle, and 1ms synchronization cycle; a single module can operate PI control and simple logic operation, and monitor analog value

| Item                | escription                                                                                               |                                                                                 |
|---------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Power supply        | 24V C (-15% ~ 20%)                                                                                       |                                                                                 |
| Signal input        | Input type                                                                                               | Thermocouple: K、J、E、N、T、R、B (For all channel)                                   |
|                     |                                                                                                          | Thermal resistance: Pt100、JPt100、Cu100、Ni120 (For all channel)                  |
|                     | Precision                                                                                                | Thermocouple: 0.15% (Full scale) + cold compensation                            |
|                     |                                                                                                          | Thermal resistance: 0.3% (Full scale)                                           |
|                     | Sampling cycle                                                                                           | 25ms/channel, 100ms/8 channels, 100ms/4 channels                                |
| Control output      | Output form                                                                                              | Transistor output (SSR drive output)                                            |
|                     | Output channel                                                                                           | 10 channels                                                                     |
|                     | Control action                                                                                           | Manual, ON / OFF, single PI , heating & cooling PI , position proportional PI   |
| Alarm output        | Alarm form                                                                                               | 14 alarms, such as upper and lower limit alarm, deviation alarm and so on.      |
|                     | Output form                                                                                              | Transistor output (SSR drive output)                                            |
|                     | Output channel                                                                                           | 10 channels                                                                     |
| Control cycle       | 0.1s - 10s or 1s - 100s                                                                                  |                                                                                 |
| Acquisition channel | 10 channels                                                                                              |                                                                                 |
| Isolation           | Exist between power and communication, power and channel, communication and channel, channel and channel |                                                                                 |
| Communication port  | EtherCAT                                                                                                 |                                                                                 |
| Generals            | Ambient temperature                                                                                      | Working: -20 ~ 60 °C, storage: -40 ~ 70 °C                                      |
|                     | Ambient humidity                                                                                         | Working: 10 ~ 90 % RH (no condensation), keeping: 5 ~ 95 % RH (no condensation) |
|                     | Altitude                                                                                                 | Below 2000m                                                                     |
|                     | Protection level                                                                                         | IP20                                                                            |
| C & S               | Conform to IEC/EN 61326-1 (For use in industrial locations) ;CE                                          |                                                                                 |

| Model       | Acquisition channel | Temperature control output | Alarm output | Input type |
|-------------|---------------------|----------------------------|--------------|------------|
| MTCE-10T-NT | 10-CH               | Transistor                 | Flag bit     | TC         |
| MTCE-10R-NT | 10-CH               | Transistor                 | Flag bit     | RT         |

MCAS Series Temperature Controller

MCAS series temperature controller takes the lead in realizing the self-tuning PID and calibration parameters of cascade control in the industry based on the advanced self-tuning and self-learning control algorithm, which greatly simplifies the debugging of complex cascade control.

Cascade control

A single module supports 4-channel cascade temperature control

High performance

0.1s sampling cycle

High precision

Measure accuracy: full scale of  $\pm 0.15\%$  ; cascade control accuracy:  $\pm 0.5$

| Item                | Description                                                                                              |                                                                                 |
|---------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Power supply        | 24V C (-15% ~ 20%)                                                                                       |                                                                                 |
| Signal input        | Input type                                                                                               | Thermocouple: K、J、E、N、T、R、B (For all channel)                                   |
|                     |                                                                                                          | Thermal resistance: Pt100、JPt100、Cu100、Ni120 (For all channel)                  |
|                     | Precision                                                                                                | TC: 0.15% (Full scale) + cold compensation RT : 0.3% (Full scale)               |
|                     | Sampling cycle                                                                                           | 25ms/channel, 100ms/8 channels, 100ms/4 channels                                |
| Control output      | Output form                                                                                              | Transistor output (SSR drive output)                                            |
|                     | Output channel                                                                                           | 4/8 channels                                                                    |
|                     | Control action                                                                                           | Manual, ON / OFF, single PI , heating & cooling PI , position proportional PI   |
| Alarm output        | Alarm form                                                                                               | 14 alarms, such as upper and lower limit alarm, deviation alarm and so on.      |
|                     | Output form                                                                                              | Transistor output (SSR drive output)                                            |
|                     | Output channel                                                                                           | 4/8 channels (Transistor)                                                       |
| Control cycle       | 0.1s - 10s or 1s - 100s                                                                                  |                                                                                 |
| Acquisition channel | 6/8 channels                                                                                             |                                                                                 |
| Isolation           | Exist between power and communication, power and channel, communication and channel, channel and channel |                                                                                 |
| Communication port  | One isolated + one non-isolated RS485 serial port, one Ethernet port; support MODBUS slave protocol      |                                                                                 |
| Generals            | Ambient temperature                                                                                      | Working: -20 ~ 60 °C, storage: -40 ~ 70 °C                                      |
|                     | Ambient humidity                                                                                         | Working: 10 ~ 90 % RH (no condensation), keeping: 5 ~ 95 % RH (no condensation) |
|                     | Altitude                                                                                                 | Below 2000m                                                                     |
|                     | Protection level                                                                                         | IP20                                                                            |
| C & S               | Conform to IEC/EN 61326-1 (For use in industrial locations) 、UL61010-1;CE、UL                             |                                                                                 |

| Model       | Acquisition channel | Temperature control output                | Alarm output                | Input type |
|-------------|---------------------|-------------------------------------------|-----------------------------|------------|
| MCAS-06-NI  | 6-CH                | Current (6-CH, 0-20mA or 4-20mA)          | Flag bit                    | TC, RT     |
| MCAS-06-NV  | 6-CH                | Voltage (6-CH, 0-1V, 0-5V, 0-10V or 1-5V) | Flag bit                    | TC, RT     |
| MCAS-08-NI  | 8-CH                | Current (6-CH, 0-20mA or 4-20mA)          | Flag bit                    | TC, RT     |
| MCAS-08-NV  | 8-CH                | Voltage (8-CH, 0-1V, 0-5V, 0-10V or 1-5V) | Flag bit                    | TC, RT     |
| MCAS-08-NTT | 8-CH                | Transistor (8-CH)                         | Transistor (8-CH), flag bit | TC, RT     |



MZ800 Series Human Machine Interface

