MEGMEET

Power Supply Product | Industrial Automation | Smart Appliance Electronic Control |
New Energy Vehicles& Rail Transit | Intelligent Equipment | Precision Connection

TEMPERATURE CONTROLLER

SELECTION BROCHURE

Global Leading Solution Provider of Electronic Components

Power Solutions

- ☐ Telecom Power
- ☐ Server Power
- ☐ Electric Power
- ☐ Medical Power
- ☐ Display Power
- ☐ LED Power
- ☐ Laser Power
- ☐ OA Power
- ☐ Flat Panel Power
- ☐ Bi-directional Inverters for Portable Power
- ☐ Solar & BESS & EV Charging Solution

Industry Automation

- ☐ Servo System
- ■ Control System
- ☐ Elevator Controller
- ☐ Linear Motors
- ☐ IOT Solution
- ☐ Encoder
- ☐ Variable Frequency Drive
- ☐ Internal Gear Pump

New Energy Solutions

- ☐ Multiplexed EV Charging System(OBC & DC-DC)
- ☐ Power Electronic Unit(2-in-1, 3-in-1)
- ☐ E-Compressor
- ☐ TV EDU
- ☐ Motor Control Unit
- ☐ Construction Machinery Controller
- ☐ Intelligent Active Hydraulic Suspension (i-AHS)
- ☐ Railway A/C Controller
- ☐ Railway VFD
- ☐ Light Electric Vehicle Controller
- ☐ Thermal Mgmt. System

Home Appliance Control Solutions

- ☐ Residential A/C Controller
- ☐ Commercial A/C Controller
- ☐ Heat Pump Controller
- ☐ Vehicle A/C Controller
- ☐ Solar A/C Controller
- ☐ Mini Compressor Controller
- ☐ Refrigerator Controller
- ☐ Washer/Dryer Controller
- ☐ Residential Microwave
- ☐ Industrial Microwave
- ☐ Smart Bidet
- ☐ RF Thawing System

Precision Connection

- ☐ FFC
- ☐ FPC
- ☐ Coaxial Cable
- ☐ CCS
- ☐ Litz Wire
- ☐ Peek Wire

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Megmeet

Version: 202505

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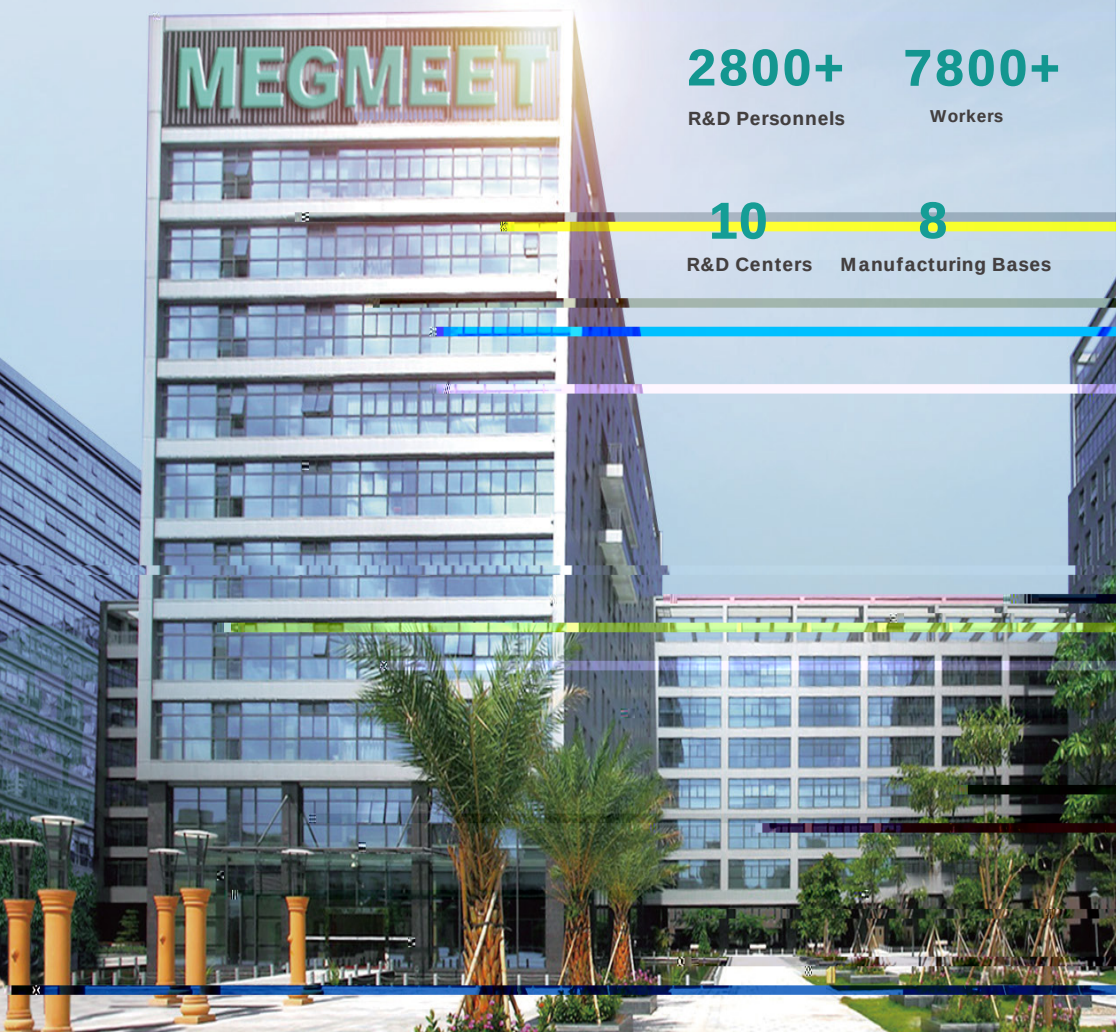
MEGMEET

Shenzhen Megmeet Electrical Co., Ltd.(Stock Code:002851) is a one-stop solution provider for the R&D, electronics and automatic control echnology. Company's main business covers six parts: power supply products, industrial automation, new energy vehicle& rail transit, intelligent equipment, smart appliance electronic control and precision connection.

Our company has established a strong platform of R&D, manufacturing, marketing and service with more than 2800 R&D personnel and a total of more than 7800 employees. We have established R&D centers in Shenzhen City, Changsha City, Xi'an City, Wuhan City, Zhuzhou City, Hangzhou City, Taizhou City and Chengdu City; overseas research institutes in the United States, Germany, and Sweden; manufacturing centers in Zhuzhou City, Dongguan City, Heyuan City, Taizhou City, and Yiwu City; overseas factories in Thailand and India; overseas marketing station in the United States, Japan, Korea, Southeast Asia, India, Germany, Poland, Romania, Turkey, Sweden to provide quality service resources.

control and energy saving.



2800+ R&D Personnels

7800+ Workers

10 R&D Centers

8 Manufacturing Bases

Contents

MTC/MTCW/MTCV Series 01/02

MQT Series 03/04

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MTC/MTCW/MTCV

Series

Product Overview

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.

Product Feature

- **Dedicated software** — Provide special software - MtcCompanion
- **Dual-PID function** — Heating&cooling dual-PID control function, 14 alarms like upper and lower limits, deviation, etc
- **High precision** — Intelligent self-tuning and multi-stage temperature setting functions to achieve high-precision temperature control
- **Multi-way control** — Integrated multi-channel temperature control to centralize data management
- **Easy exchange** — Data exchange easily between thermostat and PLC, thermostat and HMI, thermostat and computer through Ethernet and serial port

Model Specification

Item		Description
Power supply		24VDC -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 PID, heating & cooling PID, position proportional PID
	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 MODBUS slave and MCBUS slave protocol MTCW: 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

Product Model

MTC series

Model	Acquisition channel	Temperature control output	Alarm output	Input type
MTC-04-NT	4-CH	Transistor (4-CH)	Flag bit	TC, RTD
MTC-08-NT	8-CH	Transistor (8-CH)	Flag bit	TC, RTD
MTC-04-NTT	4-CH	Transistor (4-CH)	Transistor(8-CH), flag bit	TC, RTD
MTC-04-NTR	4-CH	Transistor (4-CH) Relay (8-CH)	Relay(8-CH), flag bit	TC, RTD
MTC-04-NVT	4-CH	Transistor (4-CH) Current(8-CH 0-20mA or 4-20mA) Voltage(8-CH 0-1V 0-5V 0-10V or 1-5V)	Transistor (4-CH)	TC, RTD

MTCW series (Ethernet 2*RS485)

Model	Acquisition channel	Temperature control output	Alarm output	Input type
MTCW-04-NTT	4-CH	Transistor (4-CH)	Transistor (4-CH), flag bit	TC, RTD
MTCW-04-NI	4-CH	Current (4-CH 0-20mA or 4-20mA)	Flag bit	TC, RTD
MTCW-04-NV	4-CH	Voltage (4-CH 0-1V 0-5V 0-10V or 1-5V)	Flag bit	TC, RTD
MTCW-08-NN	8-CH	-	Flag bit	TC, RTD
MTCW-08-NI	8-CH	Current (8-CH 0-20mA or 4-20mA)	Flag bit	TC, RTD
MTCW-08-NV	8-CH	Voltage(8-CH 0-1V 0-5V 0-10V or 1-5V)	Flag bit	TC, RTD
MTCW-08-NTT	8-CH	Transistor (8-CH)	Transistor (8-CH), flag bit	TC, RTD
MTCW-12-NT	12-CH	Transistor (12-CH)	Flag bit	TC, RTD
MTCW-16-NN	16-CH	-	Flag bit	TC, RTD
MTCW-08-CT	8-CH	Transistor (8-CH)	Flag bit	Current transformer (8-CH) TC, RTD
MTCW-08-NTD	8-CH	Transistor (8-CH heating, 8-CH cooling)	-	TC, RTD

MTCV series (Channel isolation RS485

Model	Acquisition channel	Temperature control output	Alarm output	Input type
MTCV-16-NT	16-CH	Transistor (16-CH)	Flag bit	TC, RTD
MTCV-08-NT	8-CH	Transistor (8-CH)	Flag bit	TC, RTD

MQT
Series

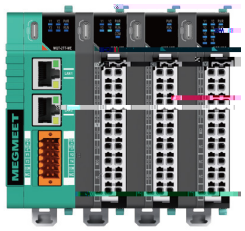
Product Overview

MQT series product, a new generation cascade temperature controller, is composed of communication module, temperature control module and expansion module, realizing high-precision temperature control by matching

multi-point temperature control, background upgrade, free combination, small size and so on.

Product Feature

- **High precision** — Measure precision: full scale of ± 0.15 %
- **High performance** — 0.1s sampling cycle and perfect PID self-tuning function, to achieve multi-channel cascade control
- **Strong function** — A single module can operate PID control and simple logic operation, and monitor analog value
- **Simple installation** — PUSH IN terminal, different terminals connection can be realized only need to gently push into
- **Complete module** — Digital I/O, analog I/O, CT input, temperature input, communication and others



Model Specification

Item		Description
Power supply		24VDC -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 PID, heating & cooling PID, position proportional PID
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
Digital 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

Product Model

Model	Acquisition channel	Temperature control output	Alarm output	Input type
Communication module				
MQT-2TT-ME	2-CH	Modbus TCP/IP/Ethernet	Transistor(4-CH)	TC
MQT-2RT-ME	2-CH	Modbus TCP/IP/Ethernet	Transistor(4-CH)	RTD
MQT-2TT-ET	2-CH	EtherCAT	Transistor(4-CH)	TC
MQT-2RT-ET	2-CH	EtherCAT	Transistor(4-CH)	RTD
MQT-2TT-RS	2-CH	Modbus RS485	Transistor(4-CH)	TC
MQT-2RT-RS	2-CH	Modbus RS485	Transistor(4-CH)	RTD
MQT-2TT-PN	2-CH	Profinet	Transistor(4-CH)	TC
MQT-2RT-PN	2-CH	Profinet	Transistor(4-CH)	RTD
Temperature control module				
MQT-4TT	4-CH	Modbus RS485	Transistor(4-CH)	TC
MQT-4TA	4-CH	Modbus RS485	Analog(4-CH)	TC
MQT-4TR	4-CH	Modbus RS485	Relay(4-CH)	TC
MQT-4RT	4-CH	Modbus RS485	Transistor(4-CH)	RTD
MQT-4RA	4-CH	Modbus RS485	Analog(4-CH)	RTD
MQT-4RR	4-CH	Modbus RS485	Relay(4-CH)	RTD
Expansion module				
MQT-8DI	8-CH	8-channel digital input	-	Digital (8-CH)
MQT-8DO	8-CH	8-channel digital output	Digital (8-CH)	-
MQT-8CT	8-CH	8-channel current detection	-	Transformer current
MQT-8DM	8-CH	4-channel digital input, 4-channel digital output	Digital (4-CH)	Digital (4-CH)
MQT-8AI	8-CH	8-channel analog current input	-	Analog (8-CH)
MQT-8AV	8-CH	8-channel analog voltage input	-	Analog (8-CH)
MQT-8AO	8-CH	8-channel analog output	Analog (8-CH)	-

MTCE

Series

MDT
Series

Product Overview

MDT series product with high-brightness LED display function is cost-effective for occasions with few temperature control channels

suppression, supports two input isolation, and the isolation withstand voltage is up to 500VDC.

Product Feature

- **Dedicated software** — Provide special software - MtcCompanion
- **Easy operation** — Digital tube display, support keyboard and software operation
- **High precision** — Support self-tuning and multi-stage temperature setting function
- **Simple installation** — Small size and guide-rail installation

Model Specification

Item	Description		
Power supply	24VDC -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	
Control output	Output form	Transistor output (SSR drive output), relay output	
	Output channel	1 channel / 2 channels	
	Control action	Manual, ON / OFF, single PID, heating & cooling PID, position proportional PID	
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	1 channel / 2 channels	
Control cycle	0.1s - 10s or 1s - 100s		
Acquisition channel	1 channel / 2 channels		
Isolation	Exist between power and communication, power and channel, communication and channel, channel and channel		
Communication port	One isolated RS485 serial port; support MODBUS slave and MCBUS 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 CE		

Product Model

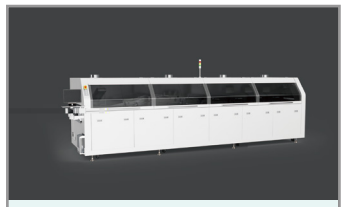
Model	Acquisition channel	Temperature control output	Alarm output	Input type
MDT-01R-R	1-CH	Relay	Relay	RTD
MDT-01R-T	1-CH	Transistor	Transistor	RTD
MDT-01T-R	1-CH	Relay	Relay	TC
MDT-01T-T	1-CH	Transistor	Transistor	TC
MDT-02R-R	2-CH	Relay	Relay	RTD
MDT-02R-T	2-CH	Transistor	Transistor	RTD
MDT-02T-R	2-CH	Relay	Relay	TC
MDT-02T-T	2-CH	Transistor	Transistor	TC

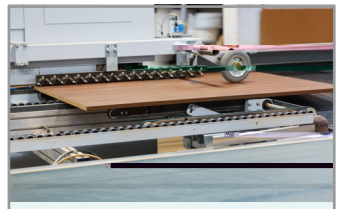
Applications

Photovoltaic

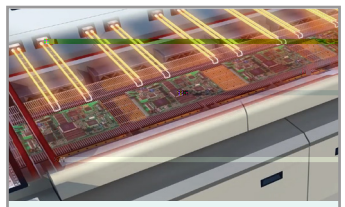
Lithium battery

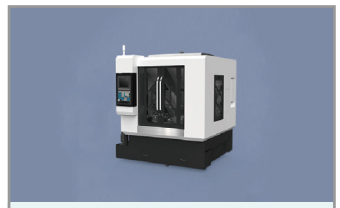
Semiconductor


Wave soldering


Edge bonding machine

Extruder


Reflow soldering


Hot bending machine

Wind power