



Features:

- Dual display, 4 digits, 7 segments LED display
- Thermocouple input (K, E, J, T, S, R, B, N, Wu3_Re25, PT100)
- PID, PID Autotune, ON-OFF Control Mode
- **Built-in Relay + SSR Drive output, output field selectable**
- 0.3% F.S measuring accuracy
- Bar graphic display indication
- °C/°F display selectable
- Alarm standby function
- Zero crossing periodic wave random trigger
- Phase angled random trigger
- **Optional features**
 - RS485 Modbus RTU Communication
 - Maximum 2 alarms
 - RUN/STOP function
 - Parameter reset to factory default value

Technical Specifications

Ordering Information

MTD-48 (48mm*48mm)(Width*Height)	1	2	3	4	5
MTD-49 (48mm*96mm)(Width*Height)					
MTD-72 (72mm*72mm)(Width*Height)					
MTD-96 (96mm*96mm)(Width*Height)					

1: Main output

C	Relay output+SSR Drive Output
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2: Number of Alarms

1	1 alarm
2	2 alarms

3: Power Source

96	85~265Vac 50/60HZ
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4: Communication

N	Without Communication
K	With Modbus RTU RS-485 communication

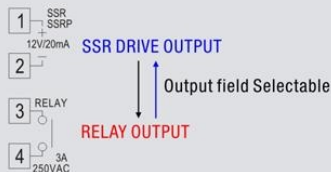
5: Auxiliary Power Supply

N	Without auxiliary power
24	24VDC Auxiliary Power Supply

Example: MTD-48-C-1-96-N-N (MTD, size 48mm*48mm, Relay+SSR Drive, 1 alarm, 85~265Vac source)

Unique Features

- 1) MTD series Controller with built-in SSR Drive output and Relay output, if you want to use this controller to trigger a AC contractor or bigger load relay, select the Relay output, if you want to use this controller to trigger a solid state relay, select the SSR drive output



- 2) This controller offers a RUN/STOP feature where you can STOP the output in the middle of a process which is useful for some of application
- 3) This controller offers a feature where all the parameters can be reset to factory default value in case the parameters was messed up. this helps a new customers to explore this controller yet do not worry about getting lost in the process

Display

Digits	4 digits 7 segments LED, Dual display
LED Indicators	OP1, OP2, AT, AL1, AL2, COM, °C, °F, PRG

Input Specifications

Inputs	Thermocouple (K, J, R, S, B, T, E, N, Wu3_Re25) RTD (PT100)
Sampling time	500ms
Input Filter (FTC)	0 to 66 (1-30 normal, 31-60 enhanced)
Resolution	1/0.1° for TC/RTD only Decimal point position selectable
Temperature Unit	°C/°F Selectable
Indication Accuracy	For TC inputs: 0.2% of F.S. ± 1° For R & S type TC inputs: 0.5% of F.S. ± 2° (20 min of warm up time for TC inputs) For RTD inputs: 0.2% of F.S. ± 1

Output Specifications

Main Control Output	1 main output, heating or cooling selectable
Contact Rating (SPST)	5A @ 250Vac Resistive Load (Main Output) 3A @ 250Vac Resistive Load (Alarm output)
SSR Drive	12V DC (20mA)

Supply Voltage

Supply Voltage	85~265Vac 50/60HZ
Power Consumption	6VA max @230Vac

Environmental Specifications

Temperature	Operating: 0 to 50°C (32 to 122°F) Storage: -20 to 75°C (-4 to 167°F)
Humidity (non-condensing)	95% RH
Weight	0.17kg (48mm*48mm) 0.25kg (48mm*96mm) 0.27kg (72mm*72mm) 0.32kg (96mm*96mm)
Protection	Dust proof for front plate

Functional Specifications

Control Action	1)PID 2)ON-OFF, when P=0 3)Time proportional when P≠0 I=0 D=0
Proportional Band(P)	0.0 to 200.0
Integral Time(I)	0 to 3600 sec
Derivative Time(D)	0 to 3600 sec
Cycle Time	0 to 999 sec
Hysteresis Width	0.0 to 999.0
Alarms modes	Deviation high / Deviation low Deviation high/low alarm Deviation band alarm Process high alarm/ Process low alarm LBA(loop break alarm)
Input offset	-199 to 199
Lower limit SV	-1999~9999
Higher limit SV	-1999~9999

Optional features

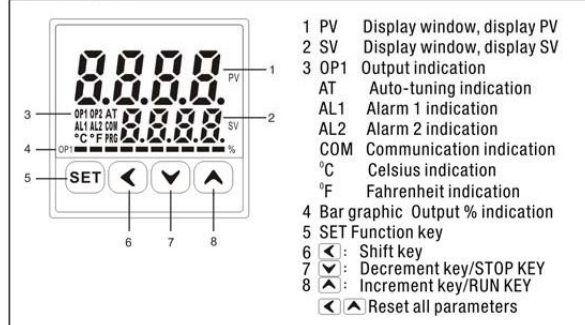
Serial communication

Interface standard	RS-485
Communication address	0 to 127, maximum 36 units per line
Transmission mode	Half duplex
Transmission protocol	Modbus RTU
Transmission format	Support 03 read command, 06 and 10 write command 1 start bit+8 digital bit+N+1 stop bit(8.N.1) 1 start bit+ 8 digital bit+N+2 stop bit(8.N.2)
Transmission speed	2400,4800,9600,19200(9600 default)

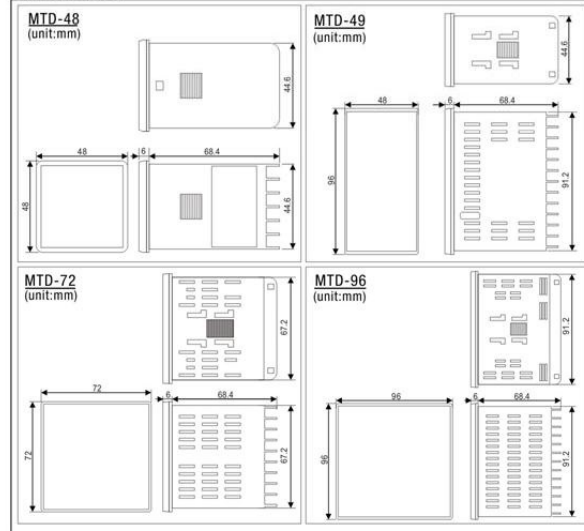
Compliance

IEC/EN 61326(EMI/EMC)
IEC/EN 61010 Revision 3 2010 Edition(Safety)

Panel Layout



Dimensions



Terminal Arrangement

