

# Temperature Adjuster

Instruction manual is available online:  
<http://fa.misumi.jp/ht/>  
 Refer to a collection of FAQ which compiled frequently asked questions.

Be sure to refer to Temperature Adjuster Overview on P.1667.

RoHS 10

Size	Output Type		Heater Wire Breakage Alarm Function	Accessory
	Relay Contact Output	SSR Drive Voltage Output		
24x48	MTMNR	MTMNS	Unavailable	-
	MTMNRD	MTMNSD	Available	CT (Current Transformer)

Accessory mounting attachment is included in the box.

• CT (Current Transformer)

Size	Output Type	Part Number	Heater Wire Breakage Alarm Function	Unit Price 1 ~ 10 pc(s).
24x48	Relay Contact Output	MTMNR	-	
		MTMNRD	Available	
	SSR Drive Voltage Output	MTMNS	-	
		MTMNSD	Available	



Ordering Example

Part Number  
**MTMNR**

For orders larger than indicated quantity, please check with WOS.

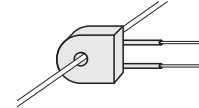
## Specification

Size	24x48mm	
Part Number	MTMNR/MTMNRD	MTMNS/MTMNSD
O.D. Dimension	24x48x100	
Control Method	ON/OFF control, PID Control with Auto Turning, PID Control with Self-turning	
Input	Thermocouple (K, J, R, T, N, S, B), Temperature Measuring Resistor (Pt100 JPt100)	
Control Output (OUT1)	Relay Contact Output (Contact Capacity AC250V 3A Resistance Load)	SSR Drive Voltage Output (DC12V Max. 20mA)
Alarm Output (EV1)	Relay Contact Output (AC250V 2.4A Resistance Load)	1a Contact Point
Control / Alarm Output2 (OUT2/EV2)	Relay Contact Output (AC250V 2.4A Resistance Load)	1a Contact Point
Sampling Frequency	500mS	
Indication Accuracy (Thermocouple)	The bigger one of $\pm 0.3\%$ of specified value +1 digit or $\pm 2^\circ\text{C}$ $\pm 3^\circ\text{C}$ for $-100 \sim 0^\circ\text{C}$ , $\pm 4^\circ\text{C}$ for $-200 \sim -100^\circ\text{C}$ , no regulation for $400^\circ\text{C}$ or less of B Thermocouple	
Indication Accuracy (Temperature Measuring Resistor)	The bigger one of $\pm 0.3\%$ of specified value +1 digit or $\pm 0.9^\circ\text{C}$	
Indication Accuracy Maintenance Temperature Range	Ambient Temperature: $23 \pm 10^\circ\text{C}$	
Storage Element	EEPROM	
Power Supply Voltage	AC 100~240V (Allowable Voltage Change Range 85 ~ 264V)	
Power Consumption	10VA (max.)	
Mass	180g or Less	

\* For relay contact of OUT1 EV1 - OUT2 EV2, the mechanical life is 5 million times or more, and the electrical life is 100 thousand times or more.

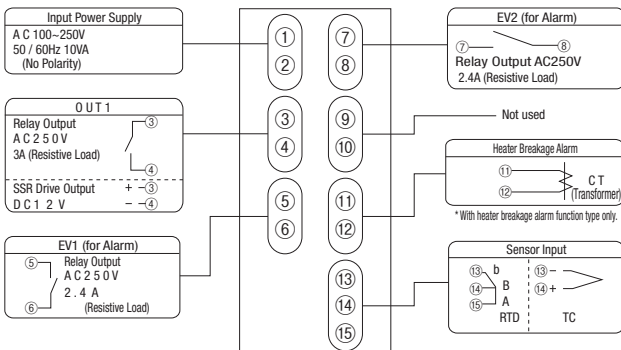
(With Heater Breakage Alarm Function Type only.)

CT Input (Current Transformer)	Setting Range	AC1~30A
	Precision	5% (Set Resolution 1A)
	Breakage Detection	ON Time of OUT1: 300mS or More
	Welding Detection	ON Time of OUT1: 300mS or More



\* Use the heater wire breakage alarm function included CT (Current Transformer) by threading the heater lead wire through  $\phi 5.8$  hole.

## Terminal Arrangement for Wire Connection

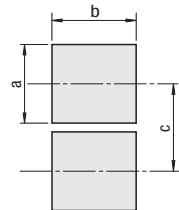


## • Sensor Input Types and Sensor Range

Sensor	Lower to Upper Limit	Setting the decimal point
00 K Thermocouple	-200~ 1372	-199.9~990.0
01 J Thermocouple	-200~ 850	-199.9~850.0
02 R Thermocouple	0~ 1700	
03 T Thermocouple	-200~ 400	-199.9~390.0
04 N Thermocouple	-200~ 1300	-199.9~990.0
05 S Thermocouple	0~ 1700	
06 B Thermocouple	0~ 1800	
10 Pt100Q	-199~ 500	-199.9~500.0
11 JPt100Q	-199~ 500	-199.9~500.0

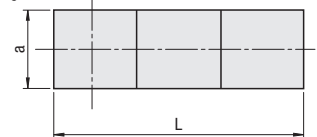
## ■ Panel Cut Dimension

### • Single Installation



### • Solid Installation

\* To install, insert the body and gasket into the square hole of the panel, and insert the mounting attachment from the rear side until clearance is eliminated.



Size	a	b	c	L
24x48	22.2 <sup>+0.3</sup> <sub>0</sub>	45 <sup>+0.6</sup> <sub>0</sub>	60 or More	(48x Qty. of Controllers-3) <sup>+0.6</sup> <sub>0</sub>
48x48	45 <sup>+0.6</sup> <sub>0</sub>			
96x96	92 <sup>+0.6</sup> <sub>0</sub>	92 <sup>+0.6</sup> <sub>0</sub>	120 or More	(96x Qty. of Controllers-3) <sup>+0.6</sup> <sub>0</sub>

## ■ How to Mount

Size: 24x48, 48x48

Size: 96x96

