



DIGITAL TEMPERATURE CONTROLLER

デジタル温度調節器



mono one[®]-120

[mono wAn]

Utility model registered

Made in Japan

RoHS Compliance

This is the subsequent model of MonoOne-100/100T.

- Easy, safe and compact design & easy to use for anyone.
- Supports most sensors(excluding thermistors)
- It makes easier for you to operate the unit when you are seated by attaching the stand base.(as options.)
- With timer which maximum set time is 100 hours. Available to install on the DIN rail. (as options.)
- First in the industry! Also monitoring the temperature of the heating object. It is safely use for operators.

Standard Equipment

- **Monitoring function**(With overheat prevention function)
Measuring the temperature of the heating object while controlling the temperature of the heater. (Monitoring function) It controls the temperature more accurate by checking the two temperatures simultaneously. It can be used safely even if the heating point is away from the controller.
- **Error function**
Even if unpredictable failures such as heater burnout or sensor burnout occur, The buzzer or the rotating lamp can be used to realize a safe field environment by using the error port.

■ Specifications ※Parameter settings must be preset.

Model	monoone-120/120T			
Input	Thermocouple(K, J, T, E, R, S, B) External resistance 100Ω or less Platinum resistance temperature detector(Pt100Ω)			
Power supply voltage	AC90~240V(single phase) 50/60Hz			
Output format	SSR(Contactless) Voltage output (Output voltage depends on power supply voltage.)			
Output rating	1.5A or less *Slight leakage current flows due to SSR output. Consult us if you need the current 0.1A or less.			
Auxiliary output	AC 250V 3A			
Control method	1. PIC control(Heating operation) With auto-tuning 2. ON/OFF control(Heating operation)			
Control constant	Proportional band: 0.1~999.9(°C)/Proportional cycle: 1~10 (secs.) Integration time: 0~999(secs.)/Sensitivity: 0~99.9(°C) Derivative time: 0~999 (secs.)/PV correction: -50.0~50.0(°C)			
Display range	Type	Resolution0.1	Resolution1	Unit
	K	-199.9~999.9	-199~1372	°C
	Pt100	-199.9~650.0	-199~650	°C
	J	-500~999.9	-50~1100	°C
	T	-199.9~400.0	-199~400	°C
	E	-199.9~750.0	-199~750	°C
	R	—	0~1760	°C
	S	—	0~1760	°C
B	—	0~1800	°C	

Measured temperature: 7-segment red LED with a character height of 14.3mm
Set temperature: 7-segment green LED with a character height of 10.2mm
Monitor display: 7-segment red LED with a character height of 8.0mm
Timer display: 7-segment green LED with a character height of 8.0mm
OUT lamp: Lights when heater output is on.(Orange LED)
ALARM lamp: Lights upon an alarm.(Red LED)
AT lamp: Lights during auto-tuning.(Green LED)
ON timer: Lights up when you select ON timer.(Orange LED)
OFF timer: Lights up when you select OFF timer.(Orange LED)

First in the industry!
Warranty period
5 YEARS!



The timer and the stand are attached to the product in this photo.

Optional Equipment

- **Timer function**
Up to 100 hours, Setting the ON/OFF switch in increments of 1 minute is available. This helps to save your labor time.
- **Designed considering DIN rail**
Available to attach to the DIN rail. It is easy to install on the control panel.
- **Easier to operate the unit by attaching the stand base.**
It is easily viewable at your preferred angle by the 5-step angle adjustment.
- **Power cord and temperature sensor are not included in this temperature controller.**

※Please consult us.

Indicating accuracy	Thermocouple	K,J,T,E	(±0.3% or ±2°C of indication value, whichever is greater) ±1 digit max
		R,S	(±0.3% or ±3°C of indication value, whichever is greater) ±1 digit max
		B	±5% ±1 digit max in the display range of 0 to 400°C
	Platinum resistance temperature detector		(±0.3% or ±2°C of indication value, whichever is greater) ±1 digit max
Sensor error is not included.			
Sampling period	0.5 sec		
Storage for settings	EEPROM		
Short-circuit protection	Built-in 20 A fuse (not replaceable by user)		
Other functions	Error indication/Burnout/Overheat prevention setting/Locking function/Heater burnout alarm/Timer function		
Power consumption	10 VA or less		
Allowable ambient conditions	Temperature: 0 to 40°C Humidity: 35 to 85% rh (no condensation)		
Withstand voltage	1800 VAC for one second (both power supply and output unit)		
Noise resistance	1200 V or more with a pulse width of 50 ns and 1 μS		
Dimensions/weight	165(H)×110(W)×85(D)mm *Excluding projections and brackets Approx. 1.3 kg		
Installation	Desktop/Wall hanging/DIN rail. Mounting plate(Optional)		

Related products

Temperature sensor

- Be sure to read the manual before using the product to insure safe and proper operation.

SPECIAL WEB SITE **monoone.jp**



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