QMS
JIS Q 9001
JSAQ097

DIGITAL TEMPERATURE CONTROLLER

TTM-i4N

■ FEATURES

＊EQUIPPED WITH ULTRA-FUZZY CONTROL.
＊LARGE WHITE DISPLAY FOR CLEAR VIEW.
＊By connecting the loader cable, parameter setting would be possible without the external power supply (Power will be supplied from the PC).
Even the complicated setting can easily be done with the simple key operation of the PC. The setting procedures are greatly minimized.
＊COMPACT BODY WITH DEPTH OF 59mm.
＊SAMPLING CYCLE:250mS.
＊UL/CE/KC STANDARD (Application pending)
＊FUZZY CONTROL: Effectively prevents the "Over-Shoot" better than the normal PID Control at the initial start-up stage.
＊In the event of power failure, the data of the integral operation volume at the time of normal operation is stored in EEPROM, and by restoring this volume upon resumption of power, the time required to stabilize the control will be improved, thus, the occurrence rate of defective item is diminished.

■ Temperature Input Section

Input types	Thermocouple: K, J, R, T, N, S, B (JIS C 1602-1995) RTD : Pt100, JPt100 (JIS C 1604-1997) ＊The input types are switched by setting.
Sampling cycle	250mS
Display precision: (the ambient temperature 23±10° C)	Thermocouple: Input value ±(0.3% + 1 digit) or ±2° C, whichever is larger (the ambient temperature 23±10° C). However, the condition shall be ±3° C in the -100 to 0° C range, and ±4° C in the -200 to -100° C range. Not specified for temperatures not higher than 400° C for thermocouple B. RTD : Input value ±(0.3% + 1 digit) or 0.9° C, whichever is larger (the ambient temperature 23±10° C). At ambient temperatures of 0 to 50° C, ±(0.5% + 1 digit) or 1.5° C, whichever the higher.

■ Control output

Relay contact output	Control output: 250VAC, 3A (resistance load) Contact 1a Minimum load 5VDC, 100mA Event 1 output: 250VAC, 1A (resistance load) Contact 1a Minimum load: 5VDC, 10mA
SSR driving voltage output	Control output: 12VDC Load resistance: 600 or more

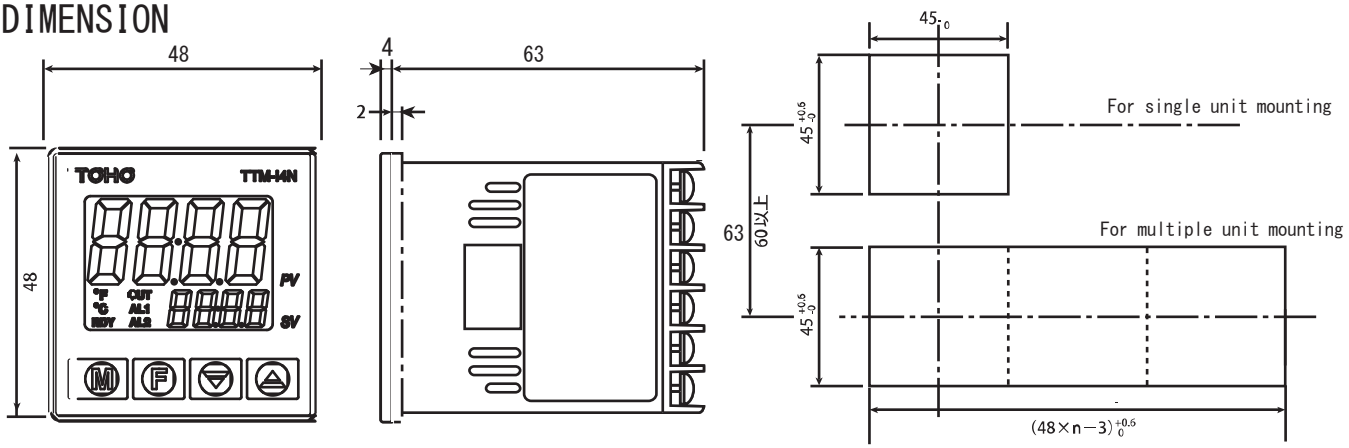
■ Timer

Unit setting	Switchover between hours/minutes and minutes/seconds
Setting range	0 minutes and 0 seconds to 59 minutes 59 seconds 0 hours 0 minutes to 99 hours 59 minutes
Setting precision	Time setting ± (1.5% + 0.5 seconds)

■ General Specification

Power supply voltage	100 to 240VAC, 50/60Hz	
Environmental conditions	Standard environmental conditions	Temperature range: 23° C ±10° C Humidity range: 45 to 75%RH
	Operating environmental conditions	Temperature range: 0 to 50° C Humidity range: 20 to 90%RH (no condensation)
	Storage environmental conditions	Temperature range: -25 to 70° C (no freezing, no condensation) Humidity range: 5 to 95%RH (non-condensing)

■ DIMENSION



■ Terminal connection

Output 2/Event 2	NO		①	⑥	C	Event 1,Output 2/Event 2		
Output 1	NO	+	②	⑦	NO	Event 1		
	C	−	③	⑧	b	RTD input	−	Thermocouple input
Power supply			④	⑨	B		+	
			⑤	⑩	A			

「C」, 「NO」 : Relay contact output
「+」, 「−」 : SSR drive voltage output

■ Model selection

TTM−i4N−□−AB
①　②③

No.	Item	Mark	Content
①	Output 1	R	Relay contact
		P	SSR drive voltage output
②	Event 1	A (Fixed)	Relay contact
③	Output 2/Event 2	B (Fixed)	