



คุณสมบัติ

- TTM-P4W-Series เป็นเครื่องควบคุมที่สามารถโปรแกรมการทำงาน ได้ถึง 15 Pattern, 64 Step.
- Universal Input Thermocouple(7 types) or R.T.D.(Pt100) is Selectable
- ควบคุมแบบ PID หรือ ON/OFF
- ติดตั้งง่าย และมีความลึกเพียง 77 mm.
- มีมาตรฐาน CE
- RS-485 Communication, MODBUS Protocol
- Output แบบ Relay/ SSR/ Current 4-20mA โดยการเลือก Code การสั่งชื่อ
- ความไวในการตอบ สอนอง 500 mSec.
- สามารถกำหนด Zone ในการ Auto- tuning โดยกำหนดช่วง Low/ Medium High
- สามารถ Stat program โดยอ้างอิงจากค่า PV หรือ SV ได้
- สามารถควบคุมระบบได้ตาม Pattern ที่ต้องการด้วย Heat และ Cool Output

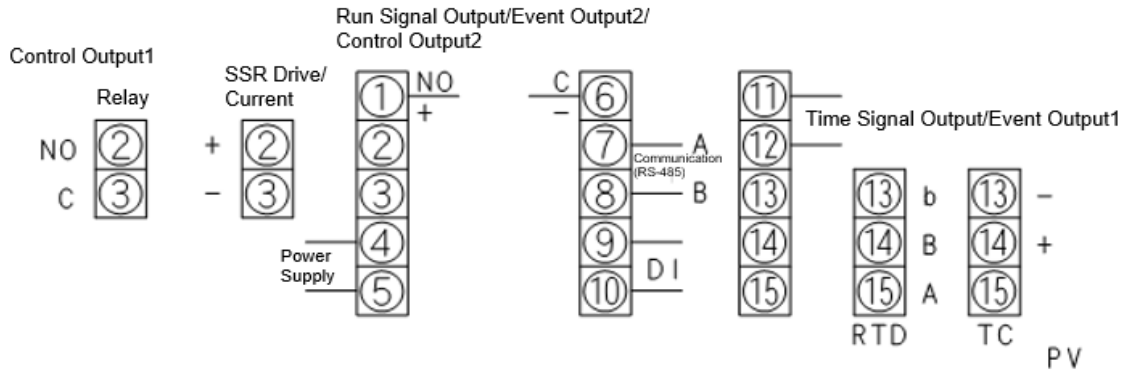
ข้อมูลทางเทคนิค

Input Type	Thermocouple	K, J, R, T, N, S, B		
	RTD	Pt100 (external resistance below 10 Ω (per wire. All three wires must have the same resistance))		
Sampling Cycle		250ms		
Settings and Indication Accuracy (Ambient Temperature 23°C ±10°C)	Thermocouple	K, J, R, T, N, S, B	±(0.3% + 1 digit) of the instruction value or ±2°C, whichever is bigger (Ambient Temperature: 23°C ±10°C). However, ±3°C between -99°C to 0°C, ±4°C between -210 to -100°C. No stipulation below 400°C in B-thermocouple.	
	RTD	Pt100	±(0.3% + 1 digit) of the instruction value or ±0.9°C, whichever is bigger (Ambient Temperature: 23°C ±10°C)	
Control Type		PID, ON/OFF		
Control Output1 (Out1)	Relay Contact	250V AC 3A (Resistance load) 1a contact		
	SSR Driving Voltage	0 to 12V DC (Load resistance 600 Ω or more)		
	Current	4 to 20mA DC (Load resistance 600 Ω or less)		
Time Signal Output/Event Output1	Relay Contact	250V AC 2.4A (Resistance load) 1a contact		
Run Signal Output/Event Output2/ Control Output2 (OUT2)	Relay Contact	250V AC 2.4A (Resistance load) 1a contact		
	SSR Driving Voltage	0 to 12V DC (Load resistance 600 Ω or more)		
DI Input	Function	This will be enabled only if external operation is selected. DI (External Input) Selection * * * External Operation: Run/Reset by the signal of DI (External input) Internal Operation: Run/Reset by the front key switch		
	Input Method	Non voltage contact point input		
	Minimum Input Time	500ms		
	Voltage during OFF	Max. 6V DC	Current during ON	Max. 6mA
	Allowable Resistance between Terminals	Maximum of 333 Ω if ON/Minimum of 500 KΩ if OFF		
Transmission Output *Available only when 4 to 20mA is selected for control output 1	Function	PV (Measured Value) transmission output, SV (Set Value) transmission output, MV (Manipulated Variable) transmission output		
Power Supply		100 to 240V AC(50/60Hz)		

OPTION SPECIFICATIONS

Communication	Communication Standard	RS-485 (1:31)
	Protocol	TOHO /MODBUS(RTU, ASCII)
	Communication speed	1200 / 2400 / 4800 / 9600 / 19200 BPS

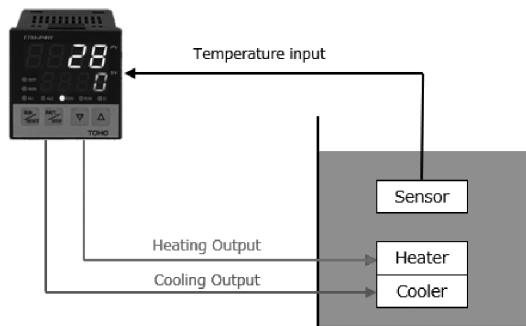
การต่อใช้งาน



If DI is inputted with the open collector output, ⑨ is +.

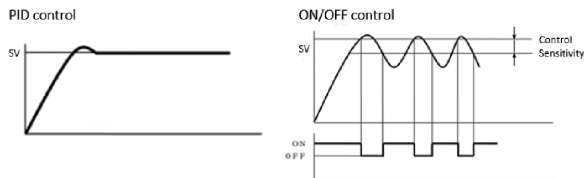
Heat / Cooling Control

Equipped with heating / cooling control function in one unit



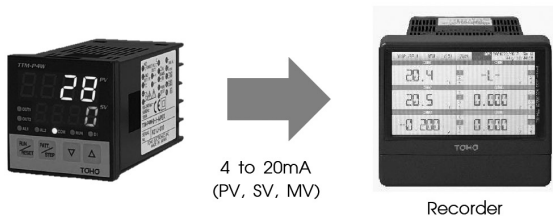
Control Type

PID or ON/OFF is selectable by parameter setting.



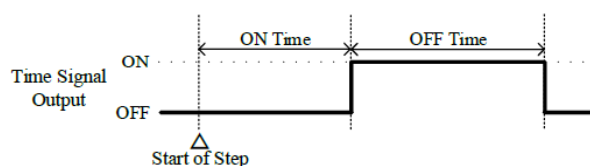
Transmission Output

Can transfer PV (measurement value), SV (set value) or MV (manipulated variable) to recorder etc..



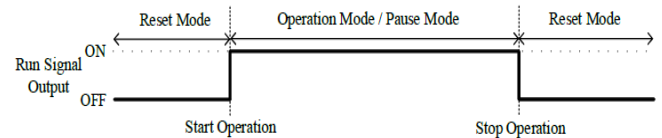
Time Signal Output

It is a function to output at any time at the start of operation or at the transition to the next step.



Run Signal Output

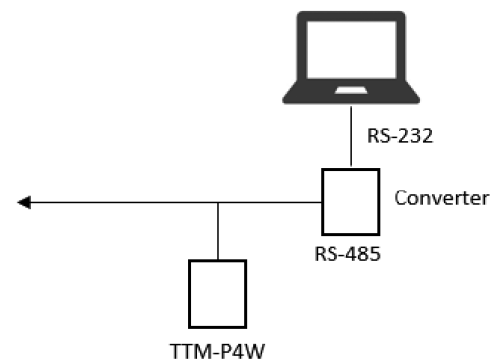
It is a function to turn on the output during the operation mode or pause mode. In reset mode, the output is turned off.



RS-485 Communication (Option)

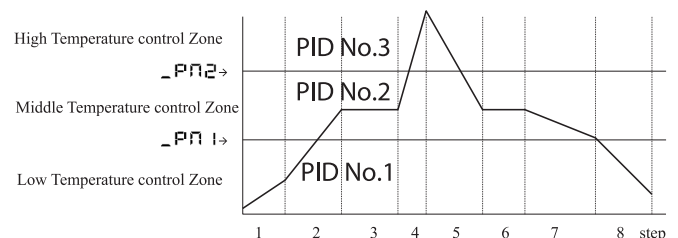
Up to 31 units can be connected simultaneously.

With one host computer, a centralized monitoring such as "collection of all data", "changes of various setting value" is possible from a distant location.

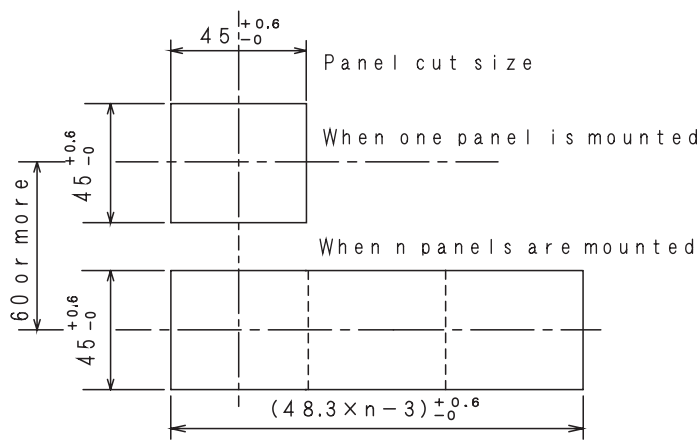
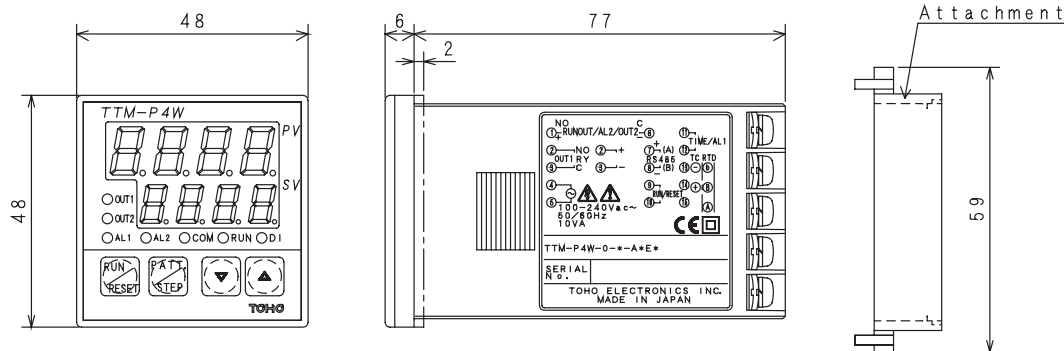


3 Zone PID

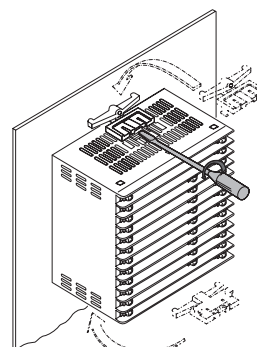
It is a function that divides a temperature zone into three temperature zones and switches the PID setting depending on which temperature zone the control SV is at.



ขนาดและมิติ



การติดตั้ง



การสั่งซื้อ

TTM-P4W-0-□-A□E□

① ② ③ ④⑤⑥⑦

	Item	Description		
①	Model	P4W	48×48mm	
②	Input	0	Thermocouple(K, J, R, T, N, S, B) RTD(Pt100)	
③	Control Output 1	R	Relay Contact	Select One
		P	SSR Drive Voltage	
		I	Current 4-20mA DC	
④	Time Signal Output/Event Output 1	A	Relay Contact	
⑤	Run Signal Output/Event Output 2/ Control Output 2	B	Relay Contact	Select One
		P	SSR Drive Voltage	
⑥	External Input	E	DI (Non-voltage contact input)	
⑦	Communication (Option)	X	RS-485	

*" I " in Control Output1 can be switched to transmission output by parameter setting.