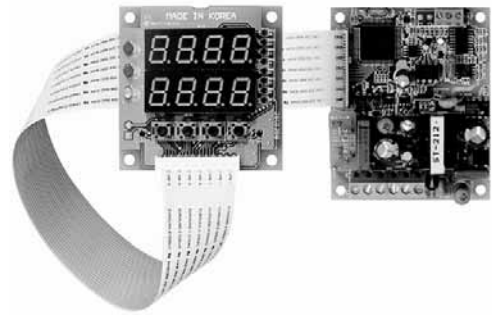


Board type Temperature controller

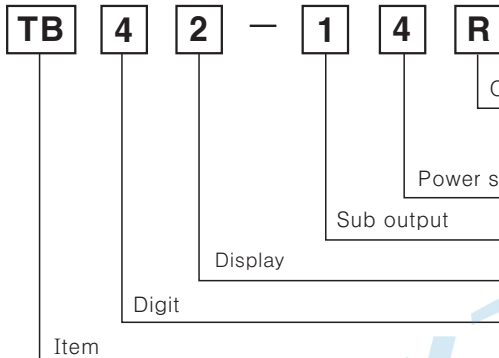
■ Features

- High quality and economical product
- Convenient organization of panel to use
- Dual PID control
- Time reservation

⚠ Please read "Caution for your safety" in operation manual before using.



■ Ordering information



R	Relay output
S	SSR output
C	Current output(DC4-20mA)
N	PV Transmission output(DC4-20mA)
4	100-240VAC 50/60Hz
1	EVENT1 output type
2	2 Display
4	4 Digit
TB	Temperature Board

※PV transmission output type does not have EVENT1 output.

■ Specifications

Model		TB42-14R	TB42-14S	TB42-14C	TB42-14N
Power supply		100-240VAC 50/60Hz ±10%			
Power consumption		Approx. max. 5VA			
Display method		7 Segment LED Display [Processing value(PV):Green, Setting value(SV):Red]			
Character size		W8×H10mm			
Input	Thermocouple	K(CA), J(IC) [Tolerance outer resistance is max. 100Ω]			
	RTD	Pt100Ω, JIS Pt100Ω [Allowable line resistance is max. 5Ω per a wire]			
Output	Relay	250VAC 3A 1a	_____	_____	_____
	SSR	_____	12VDC ±3V 30mA Max.	_____	_____
	Current	_____	_____	DC4-20mA Load 600Ω Max.	_____
	Transmission	_____	_____	_____	DC4-20mA, load Max. 600Ω for PV
Sub output		• Event1 output : Relay output(250VAC 0.5A 1a) • Event2 output : OK monitoring display by LED			
Control method		ON/OFF control, P, PI, PD, PIDF, PIDS			
Setting type		Front push buttons			
Display accuracy		F.S ±0.5% rdg ±1 Digit based on SV or 3℃ Max.			
Hysteresis		Adjustable 1 ~ 100℃ (0.1 ~ 100.0℃) at ON / OFF control			
Proportional band(P)		0.0 ~ 100.0%			
Integral time(I)		0 ~ 3600sec			
Derivative time(D)		0 ~ 3600sec			
Control cycle(T)		1 ~ 120sec			
Sampling period		0.5sec fixed			
Dielectric strength		2000VAC 50/60Hz for 1 minute (Between input and power terminal)			
Vibration		0.75mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours			
Relay life cycle	Main output	Mechanical : Min. 10,000,000, Electrical : Min. 100,000 (250VAC 3A resistive load)			
	Sub output	Mechanical : Min. 20,000,000, Electrical : Min. 200,000 (250VAC 0.5A resistive load)			
Insulation resistance		Min. 100MΩ (500VDC mega)			
Noise strength		±2kV the square wave noise (pulse width:1μs) by the noise simulator			
Memory protection		10 years (When using non-volatile semiconductor memory type)			
Ambient temperature		-10 ~ 50℃			
Storage temperature		-20 ~ 60℃			
Ambient humidity		35 ~ 85% RH			
Approval					
Unit weight		Approx. 113.5g			

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

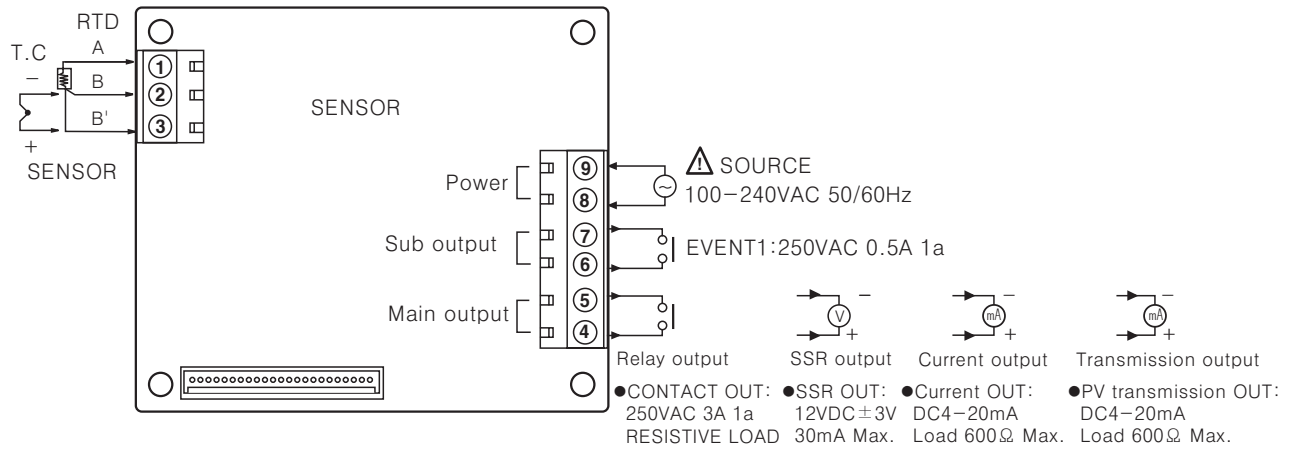
(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Production stoppage models & replacement

■ Connections

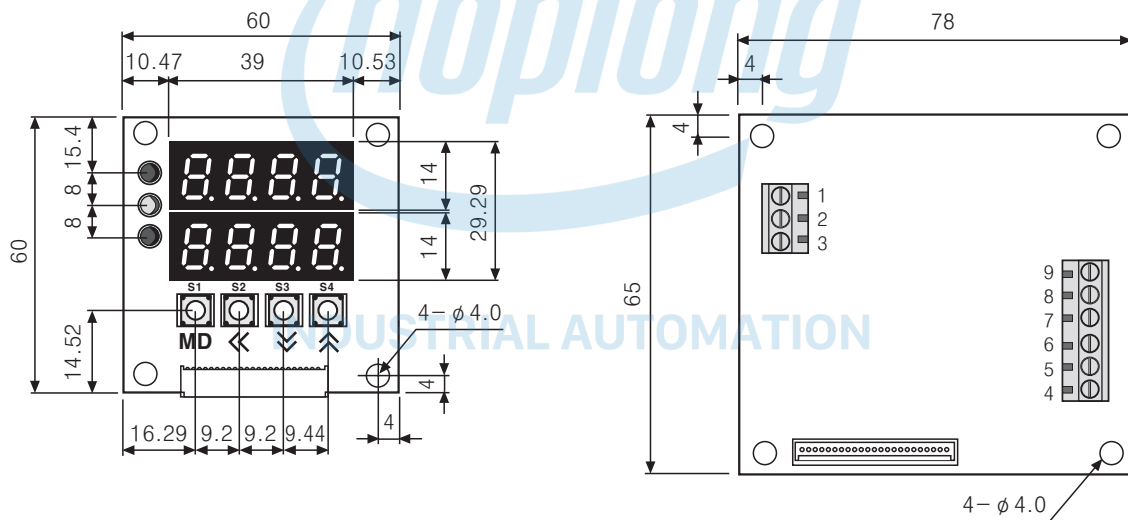
※RTD(Resistance Temperature Detector) : DIN Pt 100Ω , JIS Pt 100Ω (3-wire type) ※Thermocouple : K, J



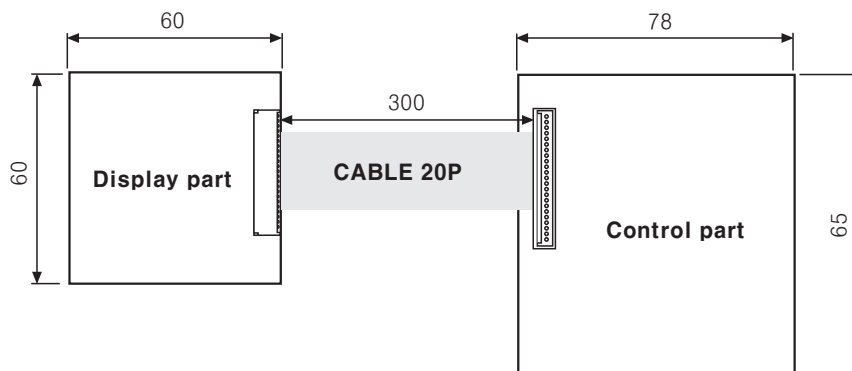
▣ Dimensions

- Display part

- Control part



- Layout



(Unit : mm)

※Cable length is 300mm.

※The size of board is based on user's application. (Customizable)