

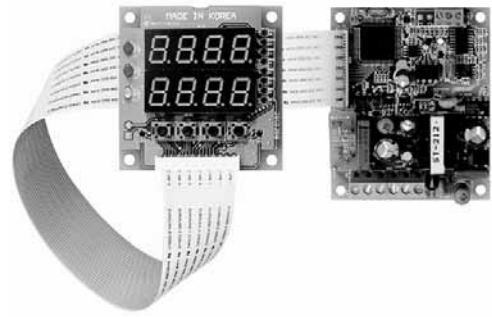
Board Type PID Controller

Board type Temperature controller

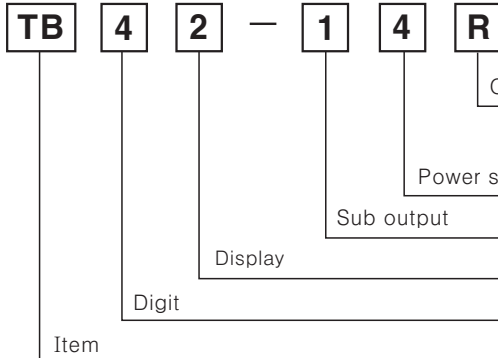
■ Features

- 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

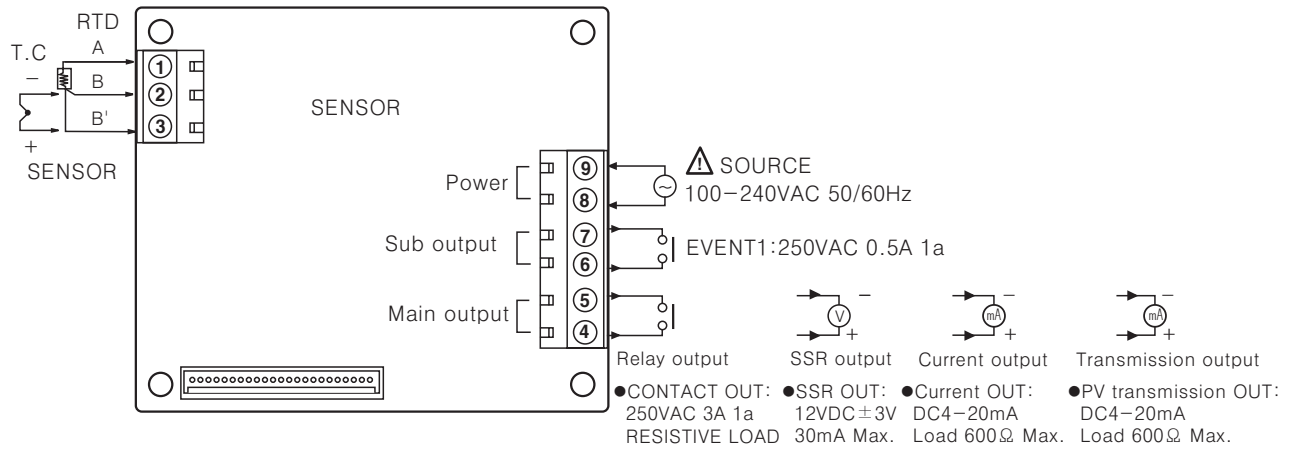
Model	TB42-14R	TB42-14S	TB42-14C	TB42-14N
Power supply	100-240VAC 50/60Hz ±10%			
Power consumption	Approx. max. 5VA			
Display method	7 Segment LED Display [Processing value (PV):Green, Setting value (SV):Red]			
Character size	W8×H10mm			
Input	Thermocouple	K (CA), J (IC) [Tolerance outer resistance 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	—————	—————	—————
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°C Max.			
Hysteresis	Adjustable 1 ~ 100°C (0.1 ~ 100.0°C) 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°C			
Storage temperature	-20 ~ 60°C			
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

TB42 Series

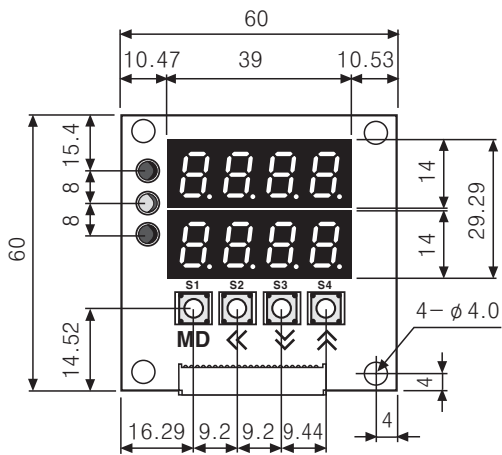
Connections

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

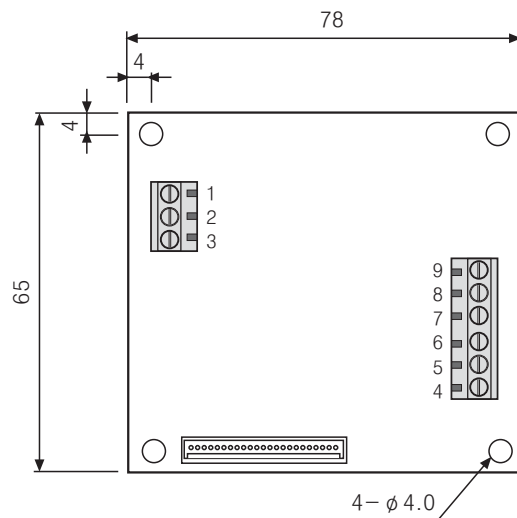


Dimensions

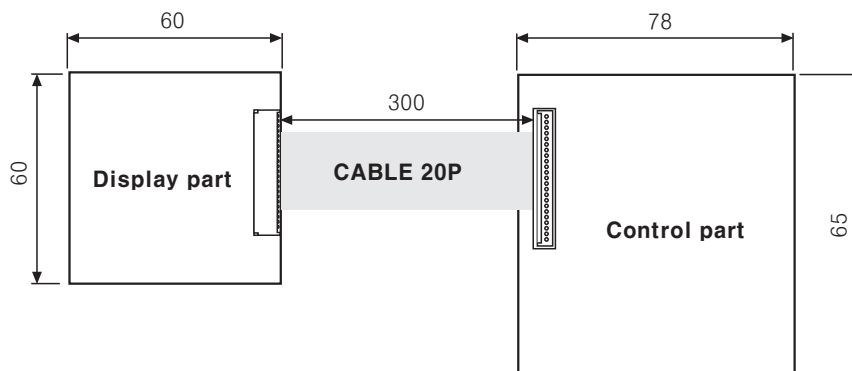
Display part



Control part



Layout



(Unit : mm)

※Cable length is 300mm.

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