

# Data sheet

Display method	4-digit 7-segment LED
Control method	ON/OFF, P, PI, PD, PID
Input specification	Thermocouple: K(CA), J(IC), E(CR), T(CC), B(PR), R(PR), S(PR), N(NN), C(TT), G(TT), L(IC), U(CC), Platinel II RTD: DPT100Ω, DPT50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nickel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA
Sampling cycle	50ms
Control output 1	Relay(250VAC~ 3A)
Control output 2	Relay(250VAC~ 3A)
Option input	CT, Digital(DI-1/2)
Option output	Alarm 1/2
Power supply	100-240VAC~ 50/60Hz
Protection structure	IP65(front panel)
Display accuracy _RTD	<ul style="list-style-type: none"> <li>At room temperature(23°C±5°C):(PV ±0.3% or ±1°C, select the higher one) ±1-digit</li> <li>Out of room temperature:(PV ±0.5% or ±2°C, select the higher one) ±1-digit</li> </ul>
Display accuracy_ Thermocouple	<ul style="list-style-type: none"> <li>At room temperature(23°C±5°C):(PV ±0.3% or ±1°C, select the higher one) ±1-digit</li> <li>Out of room temperature:(PV ±0.5% or ±2°C, select the higher one) ±1-digit</li> </ul>
Display accuracy _Analog	<ul style="list-style-type: none"> <li>At room temperature(23°C±5°C): ±0.3% F.S. ±1-digit</li> <li>Out of range of room temperature: ±0.5°C% F.S. ±1-digit</li> </ul>
Display accuracy _CT input	±5% F.S. ±1-digit
Hysteresis(adjustable sensitivity)	RTD/Thermocouples: 1 to 100°C/°F(0.1 to 100.0°C/°F) variable Analog: 1 to 100-digit
Proportional band	0.1 to 999.9°C/°F(0.1 to 999.9%)
Integral time	0 to 9999 sec
Derivative time	0 to 9999 sec
Control period	Relay output, SSR drive output: 0.1 to 120.0 sec Current output or SSR drive output selectable: 1.0 to 120.0 sec
Manual reset	0.0 to 100.0%
Environment_Ambient temperature	-10 to 50°C, storage: -20 to 60°C
Environment_Ambient humidity	35 to 85% RH, storage: 35 to 85% RH
Insulation type	Double insulation or reinforced insulation(mark:  , dielectric strength between the measuring input part and the power part: 2kV)
Weight	Approx. 294g(approx. 198g)

※"S" represents SSR drive output support models which SSRP function (standard ON/OFF control, cycle control, phase control) are available. "C" represents selectable current and SSR drive output support models.

※Select "R" or "C" type in case of using heating&cooling control and "N" type in case of using standard control.

※CT input of TK4N is available only for the standard model which has alarm output 1.

※Display accuracy:

◎At room temperature (23°C±5°C)

- Thermocouple K, J, T, N, E type, below -100°C/Thermocouple L, U, PL II type, RTD Cu50Ω, DPT50Ω: (PV ±0.3% or ±2°C, select the higher one) ±1-digit
- Thermocouple C, G, R, S type, below 200°C: (PV ±0.3% or ±3°C, select the higher one) ±1-digit
- Thermocouple B type, below 400°C: there is no accuracy standards.

◎Out of room temperature range

- RTD Cu50Ω, DPT50Ω: (PV ±0.5% or ±3°C, select the higher one) ±1-digit
- Thermocouple R, S, B, C, G type: (PV ±0.5% or ±5°C, select the higher one) ±1-digit
- Others, Below -100°C: within ±5°C

In case of TK45P Series, ±1°C will be added to the degree standard.

※The weight includes packaging. The weight in parenthesis is for unit only.

※Environment resistance is rated at no freezing or condensation.