






Temperature Controllers

Series	Display Method	Control Method	Input Type	Sampling Period	
High Performance, General-Purpose, PID Control Temperature Controller TK4N Series  W48×H24×L91.8mm	4-digit 7-segment LED	Heating, Cooling	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms	
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms	
High Performance, General-Purpose, PID Control Temperature Controller TK4SP Series (11-pin plug type)  W48×H48×L72.2mm	4-digit 7-segment LED	Heating, Cooling	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms	
		Heating, Cooling Heating& Cooling			ON/OFF control, P, PI, PD, PID control
		Heating, Cooling	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms	
		Heating, Cooling Heating& Cooling			ON/OFF control, P, PI, PD, PID control

※Sold separately: 11-pin socket (PG-11, PS-11(N))

Control Output 1	Control Output 2	Option Input	Option Output	Power Supply	Protection Structure	Approval	Model
■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	—	CT	Alarm 1	100-240VAC	IP65 (front panel)		TK4N-14■N
		—	Alarm 1/2				TK4N-24■N
		Digital (DI-1/2)	Alarm 1				TK4N-D4■N
		—	Alarm1, Transmission (DC4-20mA)				TK4N-R4■N
		—	Alarm 1, RS485 comm.				TK4N-T4■N
■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Relay (250VAC 3A)	—	Alarm 2	100-240VAC	IP65 (front panel)		TK4N-14■R
		Digital (DI-1/2)	—				TK4N-D4■R
		—	Transmission (DC4-20mA)				TK4N-R4■R
		—	RS485 comm.				TK4N-T4■R
■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	—	Alarm 2	100-240VAC	IP65 (front panel)		TK4N-14■C
		Digital (DI-1/2)	—				TK4N-D4■C
		—	Transmission (DC4-20mA)				TK4N-R4■C
		—	RS485 comm.				TK4N-T4■C
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	—	—	Alarm 1	24VAC, 24-48VDC	IP50 (front panel)		TK4SP-12■N
	Relay (250VAC 3A)						TK4SP-12■R
	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]						TK4SP-12■C
■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	—	—	Alarm 1	100-240VAC	IP50 (front panel)		TK4SP-14■N
	Relay (250VAC 3A)						TK4SP-14■R
	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]						TK4SP-14■C

Temperature Controllers

Series	Display Method	Control Method	Input Type	Sampling Period	
High Performance, General-Purpose, PID Control Temperature Controller TK4S Series	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms



W48×H48×64.5mm







Control Output 1	Control Output 2	Option Input	Option Output	Power Supply	Protection Structure	Approval	Model					
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	—	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c RU US	TK4S-12■N					
			Alarm 1/2				TK4S-22■N					
			Alarm1, Transmission (DC4-20mA)				TK4S-R2■N					
			Alarm 1, RS485 comm.				TK4S-T2■N					
			Alarm 1/2, Transmission (DC4-20mA)				TK4S-A2■N					
			Alarm 1/2, RS485 comm.				TK4S-B2■N					
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Relay (250VAC 3A)	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c RU US	TK4S-12■R					
			Alarm 1/2				TK4S-22■R					
			Alarm1, Transmission (DC4-20mA)				TK4S-R2■R					
			Alarm 1, RS485 comm.				TK4S-T2■R					
			Alarm 1/2, Transmission (DC4-20mA)				TK4S-A2■R					
			Alarm 1/2, RS485 comm.				TK4S-B2■R					
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c RU US	TK4S-12■C					
			Alarm 1/2				TK4S-22■C					
			Alarm1, Transmission (DC4-20mA)				TK4S-R2■C					
			Alarm 1, RS485 comm.				TK4S-T2■C					
			Alarm 1/2, Transmission (DC4-20mA)				TK4S-A2■C					
			Alarm 1/2, RS485 comm.				TK4S-B2■C					
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	—	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c RU US	TK4S-14■N					
			Alarm 1/2				TK4S-24■N					
			Alarm1, Transmission (DC4-20mA)				TK4S-R4■N					
			Alarm 1, RS485 comm.				TK4S-T4■N					
			Alarm 1/2, Transmission (DC4-20mA)				TK4S-A4■N					
		Alarm 1/2, RS485 comm.	TK4S-B4■N									
		CT, Digital (DI-1/2)	Alarm 1/2				TK4S-D4■N					
			<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>				CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c RU US	TK4S-14■R
								Alarm 1/2				TK4S-24■R
								Alarm1, Transmission (DC4-20mA)				TK4S-R4■R
Alarm 1, RS485 comm.	TK4S-T4■R											
Alarm 1/2, Transmission (DC4-20mA)	TK4S-A4■R											
Alarm 1/2, RS485 comm.	TK4S-B4■R											
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c RU US	TK4S-14■C					
			Alarm 1/2				TK4S-24■C					
			Alarm1, Transmission (DC4-20mA)				TK4S-R4■C					
			Alarm 1, RS485 comm.				TK4S-T4■C					
			Alarm 1/2, Transmission (DC4-20mA)				TK4S-A4■C					
			Alarm 1/2, RS485 comm.				TK4S-B4■C					

Temperature Controllers




Series	Display Method	Control Method	Input Type	Sampling Period	
High Performance, General-Purpose, PID Control Temperature Controller TK4M Series	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
		Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	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), Platine II RTD: DPt100Ω, DPt50Ω, JPt100Ω, Cu100Ω, Cu50Ω, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms









W72×H72×L64.5mm








Control Output 1	Control Output 2	Option Input	Option Output	Power Supply	Protection Structure	Approval	Model
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	—	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)		TK4M-12■N
			Alarm 1/2				TK4M-22■N
			Alarm1, Transmission (DC4-20mA)				TK4M-R2■N
			Alarm 1, RS485 comm.				TK4M-T2■N
			Alarm 1/2, Transmission (DC4-20mA)				TK4M-A2■N
			Alarm 1/2, RS485 comm.				TK4M-B2■N
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Relay (250VAC 3A)	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)		TK4M-12■R
			Alarm 1/2				TK4M-22■R
			Alarm1, Transmission (DC4-20mA)				TK4M-R2■R
			Alarm 1, RS485 comm.				TK4M-T2■R
			Alarm 1/2, Transmission (DC4-20mA)				TK4M-A2■R
			Alarm 1/2, RS485 comm.				TK4M-B2■R
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)		TK4M-12■C
			Alarm 1/2				TK4M-22■C
			Alarm1, Transmission (DC4-20mA)				TK4M-R2■C
			Alarm 1, RS485 comm.				TK4M-T2■C
			Alarm 1/2, Transmission (DC4-20mA)				TK4M-A2■C
			Alarm 1/2, RS485 comm.				TK4M-B2■C
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	—	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)		TK4M-14■N
			Alarm 1/2				TK4M-24■N
			Alarm1, Transmission (DC4-20mA)				TK4M-R4■N
			Alarm 1, RS485 comm.				TK4M-T4■N
			Alarm 1/2, Transmission (DC4-20mA)				TK4M-A4■N
			Alarm 1/2, RS485 comm.				TK4M-B4■N
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Relay (250VAC 3A)	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)		TK4M-14■R
			Alarm 1/2				TK4M-24■R
			Alarm1, Transmission (DC4-20mA)				TK4M-R4■R
			Alarm 1, RS485 comm.				TK4M-T4■R
			Alarm 1/2, Transmission (DC4-20mA)				TK4M-A4■R
			Alarm 1/2, RS485 comm.				TK4M-B4■R
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)		TK4M-14■C
			Alarm 1/2				TK4M-24■C
			Alarm1, Transmission (DC4-20mA)				TK4M-R4■C
			Alarm 1, RS485 comm.				TK4M-T4■C
			Alarm 1/2, Transmission (DC4-20mA)				TK4M-A4■C
			Alarm 1/2, RS485 comm.				TK4M-B4■C

Temperature Controllers

Series	Size	Display Method	Control Method	Input Type	Sampling Period
High Performance, General-Purpose, PID Control Temperature Controller  TK4W Series W96×H48×L64.5mm  TK4H Series W48×H96×L64.5mm  TK4L Series W96×H96×L64.5mm	□: Type W: DIN W96×H48mm H: DIN W48×H96mm L: DIN W96×H96mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control 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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
			Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control 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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
			Heating, Cooling	ON/OFF control, P, PI, PD, PID control 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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
			Heating, Cooling	ON/OFF control, P, PI, PD, PID control 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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
			Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control 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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms
			Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control 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, Nikel 120Ω Analog: 0-100mV, 0-5V, 1-5V, 0-10V 0-20mA, 4-20mA	50ms

Control Output 1	Control Output 2	Option Input	Option Output	Power Supply	Protection Structure	Approval	Model
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	—	CT, Digital (DI-1/2)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)		TK4□-12■N
			Alarm 1/2				TK4□-22■N
			Alarm1, Transmission (DC4-20mA)				TK4□-R2■N
			Alarm 1, RS485 comm.				TK4□-T2■N
			Alarm 1/2, Transmission (DC4-20mA)				TK4□-A2■N
			Alarm 1/2, RS485 comm.				TK4□-B2■N
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Relay (250VAC 3A)	CT, Digital (DI-1/2)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)		TK4□-12■R
			Alarm 1/2				TK4□-22■R
			Alarm1, Transmission (DC4-20mA)				TK4□-R2■R
			Alarm 1, RS485 comm.				TK4□-T2■R
			Alarm 1/2, Transmission (DC4-20mA)				TK4□-A2■R
			Alarm 1/2, RS485 comm.				TK4□-B2■R
<p>■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1/2)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)		TK4□-12■C
			Alarm 1/2				TK4□-22■C
			Alarm1, Transmission (DC4-20mA)				TK4□-R2■C
			Alarm 1, RS485 comm.				TK4□-T2■C
			Alarm 1/2, Transmission (DC4-20mA)				TK4□-A2■C
			Alarm 1/2, RS485 comm.				TK4□-B2■C
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	—	CT, Digital (DI-1/2)	Alarm 1	100-240VAC	IP65 (front panel)		TK4□-14■N
			Alarm 1/2				TK4□-24■N
			Alarm1, Transmission (DC4-20mA)				TK4□-R4■N
			Alarm 1, RS485 comm.				TK4□-T4■N
			Alarm 1/2, Transmission (DC4-20mA)				TK4□-A4■N
			Alarm 1/2, RS485 comm.				TK4□-B4■N
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Relay (250VAC 3A)	CT, Digital (DI-1/2)	Alarm 1	100-240VAC	IP65 (front panel)		TK4□-14■R
			Alarm 1/2				TK4□-24■R
			Alarm1, Transmission (DC4-20mA)				TK4□-R4■R
			Alarm 1, RS485 comm.				TK4□-T4■R
			Alarm 1/2, Transmission (DC4-20mA)				TK4□-A4■R
			Alarm 1/2, RS485 comm.				TK4□-B4■R
<p>■: Type R: Relay (250VAC 3A) S: SSR drive (11VDC) [ON/OFF, phase, cycle] C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]</p>	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1/2)	Alarm 1	100-240VAC	IP65 (front panel)		TK4□-14■C
			Alarm 1/2				TK4□-24■C
			Alarm1, Transmission (DC4-20mA)				TK4□-R4■C
			Alarm 1, RS485 comm.				TK4□-T4■C
			Alarm 1/2, Transmission (DC4-20mA)				TK4□-A4■C
			Alarm 1/2, RS485 comm.				TK4□-B4■C



Temperature Controllers




Series	Size	Display Method	Control Method	Input Type	Sampling Period			
Single Display, PID Control Temperature Controller								
TC4S Series  W48×H48×L64.5mm	□: Type S: DIN W48×H48mm M: DIN W72×H72mm W: DIN W96×H48mm H: DIN W48×H96mm L: DIN W96×H96mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), L(IC) RTD: DPT100Ω, Cu50Ω	100ms		
TC4M Series  W72×H72×L64.5mm			Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), L(IC) RTD: DPT100Ω, Cu50Ω	100ms		
TC4W Series  W96×H48×L64.5mm			Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), L(IC) RTD: DPT100Ω, Cu50Ω	100ms		
TC4H Series  W48×H96×L64.5mm			Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), L(IC) RTD: DPT100Ω, Cu50Ω	100ms		
TC4L Series  W96×H96×L64.5mm			Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), L(IC) RTD: DPT100Ω, Cu50Ω	100ms		
TC4S Series (11-pin plug type)  W48×H48×L72.2mm			□: Type SP: DIN W48×H48mm Y: DIN W72×H36mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), L(IC) RTD: DPT100Ω, Cu50Ω	100ms
TC4Y Series  W72×H36×L77mm					Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), L(IC) RTD: DPT100Ω, Cu50Ω	100ms

※Sold separately: 11-pin socket (PG-11, PS-11(N))

Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
Indicator	—	24VAC, 24-48VDC	—	CE C  US	TC4□-N2N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	—	24VAC, 24-48VDC	—	CE C  US	TC4□-N2R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1	24VAC, 24-48VDC	—	CE C  US	TC4□-12R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1/2	24VAC, 24-48VDC	—	CE C  US	TC4□-22R
Indicator	—	100-240VAC	—	CE C  US	TC4□-N4N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	—	100-240VAC	—	CE C  US	TC4□-N4R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1	100-240VAC	—	CE C  US	TC4□-14R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE C  US	TC4□-24R
Indicator	—	24VAC, 24-48VDC	—	CE C  US	TC4□-N2N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	—	24VAC, 24-48VDC	—	CE C  US	TC4□-N2R
	Alarm 1	24VAC, 24-48VDC	—	CE C  US	TC4□-12R
Indicator	—	100-240VAC	—	CE C  US	TC4□-N4N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	—	100-240VAC	—	CE C  US	TC4□-N4R
	Alarm 1	100-240VAC	—	CE C  US	TC4□-14R

Temperature Controllers


Series	Display Method	Control Method	Input Type	Sampling Period	
Dual Display, PID Control Temperature Controller TCN4S Series  W48×H48×L64.5mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), T(CC), R(PR), S(PR), L(IC) RTD: DPt100Ω, Cu50Ω	100ms
Dual Display, PID Control Temperature Controller TCN4S-□-P (connector-plug type)  W48×H48×L67.5mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), T(CC), R(PR), S(PR), L(IC) RTD: DPt100Ω, Cu50Ω	100ms



Series	Display Method	Control Method	Input Type	Sampling Period	
Dual Display, PID Control Temperature Controller TCN4M Series  W72×H72×L64.5mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), T(CC), R(PR), S(PR), L(IC) RTD: DPt100Ω, Cu50Ω	100ms
TCN4H Series  W48×H96×L64.5mm					
TCN4L Series  W96×H96×L64.5mm		Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), T(CC), R(PR), S(PR), L(IC) RTD: DPt100Ω, Cu50Ω	100ms

Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1/2	24VAC, 24-48VDC	—	CE C RU US	TCN4S-22R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE C RU US	TCN4S-24R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1/2	24VAC, 24-48VDC	—	CE C RU US	TCN4S-22R-P
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE C RU US	TCN4S-24R-P

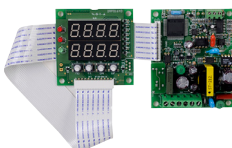
Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1/2	24VAC, 24-48VDC	—	CE C RU US	TCN4M-22R
					TCN4H-22R
					TCN4L-22R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE C RU US	TCN4M-24R
					TCN4H-24R
					TCN4L-24R





Temperature Controllers

Series	Display Method	Control Method	Input Type	Sampling Period	
LCD Display PID Control Temperature Controller TX4S Series  W48×H48×L45mm	4-digit 11-segment LCD	Heating, Cooling	ON/OFF control, P, PI, PD, PID control	Thermocouple: K(CA), J(IC), T(CC), R(PR), S(PR), L(IC) RTD: DPt100Ω, Cu50Ω	50ms





Series	Display Method	Control Method	Input CH	Input Type	Sampling Period	
2-CH Modular Type, PID Control Temperature Controller TM2 Series  W30×H100×L84.8mm	Non-display	Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	2-CH	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, JPt100Ω	50ms (2-CH synchronous sampling)
2-CH Modular Type, PID Control Temperature Controller TM4 Series  W30×H100×L84.8mm	Non-display	Heating, Cooling Heating& Cooling	ON/OFF control, P, PI, PD, PID control	4-CH	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, JPt100Ω	100ms (4-CH synchronous sampling)

※1. Expansion units (TM□□-□2□E) of TM2/4 Series (2/4-CH modular type) are available to order separately.


Series	Display Method	Control Method	Input Type	Sampling Period	
Board Type, Dual PID Control Temperature Controller TB42 Series  [display part: W60×H60mm] [control part: W65×H78mm]	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC) RTD: DPt100Ω, JPt100Ω	500ms

Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
Relay (250VAC 3A)	Alarm 1	100-240VAC	IP50 (front panel)		TX4S-14R
SSR drive (12VDC) [ON/OFF, phase, cycle]					TX4S-14S
Current (DC0/4-20mA) or SSR drive (12VDC) [ON/OFF]					TX4S-14C
Relay (250VAC 3A)	Alarm 1/2	100-240VAC	IP50 (front panel)		TX4S-24R
SSR drive (12VDC) [ON/OFF, phase, cycle]					TX4S-24S
Current (DC0/4-20mA) or SSR drive (12VDC) [ON/OFF]					TX4S-24C
Relay (250VAC 3A)	Alarm 1/2, Transmission (DC4-20mA)	100-240VAC	IP50 (front panel)		TX4S-A4R
SSR drive (12VDC) [ON/OFF, phase, cycle]					TX4S-A4S
Current (DC0/4-20mA) or SSR drive (12VDC) [ON/OFF]					TX4S-A4C
Relay (250VAC 3A)	Alarm 1/2, RS485 comm.	100-240VAC	IP50 (front panel)		TX4S-B4R
SSR drive (12VDC) [ON/OFF, phase, cycle]					TX4S-B4S
Current (DC0/4-20mA) or SSR drive (12VDC) [ON/OFF]					TX4S-B4C


Control Output	Option Input	Option Output	Module Type	Power Supply	Protection Structure	Approval	Model
Relay (250VAC 3A)	CT, Digital (DI-1/2)	Alarm 1/2, RS485 comm.	Basic module*1	24VDC	—		TM2-22RB
Current (DC0/4-20mA) or SSR drive (12VDC) [ON/OFF]	CT, Digital (DI-1/2)	Alarm 1/2, RS485 comm.	Basic module*1	24VDC	—		TM2-22CB
Relay (250VAC 3A)	CT, Digital (DI-1/2)	Alarm 1/2/3/4, RS485 comm.	Basic module*1	24VDC	—		TM2-42RB
Current (DC0/4-20mA) or SSR drive (12VDC) [ON/OFF]	CT, Digital (DI-1/2)	Alarm 1/2/3/4, RS485 comm.	Basic module*1	24VDC	—		TM2-42CB
Relay (250VAC 3A)	—	RS485 comm.	Basic module*1	24VDC	—		TM4-N2RB
SSR drive (22VDC) [ON/OFF]	—	RS485 comm.	Basic module*1	24VDC	—		TM4-N2SB





Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
Relay (250VAC 3A)	Event 1 (relay)/ Event 2 (LED)	100-240VAC	—		TB42-14R
SSR drive (12VDC) [ON/OFF]	Event 1 (relay)/ Event 2 (LED)	100-240VAC	—		TB42-14S
Current (DC4-20mA)	Event 1 (relay)/ Event 2 (LED)	100-240VAC	—		TB42-14C
PV transmission (DC4-20mA)	Event 2 (LED)	100-240VAC	—		TB42-14N


Temperature Controllers

Series	Display Method	Control Method	Input Type	Sampling Period	
Dual PID Control Temperature Controller TZ4SP Series (11-pin plug type)  W48×H48×L97.3mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms


※Sold separately: 11-pin socket (PG-11, PS-11(N))





Dual PID Control Temperature Controller TZ4ST Series  W48×H48×L98.8mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms




Series	Display Method	Control Method	Input Type	Sampling Period	
Dual PID Control Temperature Controller TZ4M Series  W72×H72×L100mm TZ4W Series  W96×H48×L100mm TZ4H Series  W48×H96×L100mm TZ4L Series  W96×H96×L100mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms







Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1	24VAC, 24-48VDC	—	CE	TZ4SP-12■
		100-240VAC	—	CE C  US	TZ4SP-14■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1	24VAC, 24-48VDC	—	CE	TZ4ST-12■
	Event 1/2				TZ4ST-22■
	Event 1, PV transmission (DC4-20mA)				TZ4ST-R2■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1	100-240VAC	—	CE C  US	TZ4ST-14■
	Event 1/2				TZ4ST-24■
	Event 1, PV transmission (DC4-20mA)				TZ4ST-R4■
Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1	100-240VAC	—	CE C  US	TZ4M-14■
					TZ4W-14■
					TZ4H-14■
					TZ4L-14■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1/2	100-240VAC	—	CE C  US	TZ4M-24■
					TZ4W-24■
					TZ4H-24■
					TZ4L-24■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1, PV transmission (DC4-20mA)	100-240VAC	—	CE C  US	TZ4M-R4■
					TZ4W-R4■
					TZ4H-R4■
					TZ4L-R4■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1/2, PV transmission (DC4-20mA)	100-240VAC	—	CE C  US	TZ4M-A4■
					TZ4W-A4■
					TZ4H-A4■
					TZ4L-A4■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1, RS485 comm.	100-240VAC	—	CE C  US	TZ4M-T4■
					TZ4W-T4■
					TZ4H-T4■
					TZ4L-T4■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1/2, RS485 comm.	100-240VAC	—	CE C  US	TZ4M-B4■
					TZ4W-B4■
					TZ4H-B4■
					TZ4L-B4■

Temperature Controllers




Series	Display Method	Control Method	Input Type	Sampling Period	
Dual PID Control Temperature Controller TZN4S Series  W48×H48×L90mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms

Series	Display Method	Control Method	Input Type	Sampling Period	
Dual PID Control Temperature Controller TZN4M Series  W72×H72×L73mm	4-digit 7-segment LED	Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
TZN4W Series  W96×H48×L100mm		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
TZN4H Series  W48×H96×L100mm		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms
TZN4L Series  W96×H96×L100mm		Heating, Cooling	ON/OFF control, P, PI, PD, PIDF, PIDS control	Thermocouple: K(CA), J(IC), E(CR), T(CC), R(PR), S(PR), N(NN), W(TT) RTD: DPt100Ω, JPt100Ω Analog: 1-5VDC, 0-10VDC, DC4-20mA	500ms

Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
Relay (250VAC 3A)	Event 1	100-240VAC	—	CE C  US	TZN4S-14R
SSR drive (12VDC) [ON/OFF]	Event 1	100-240VAC	—	CE C  US	TZN4S-14S
Current (DC4-20mA)	Event 1	100-240VAC	—	CE C  US	TZN4S-14C







Control Output	Option Output	Power Supply	Protection Structure	Approval	Model
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1	100-240VAC	—	CE C  US	TZN4M-14■
					TZN4W-14■
					TZN4H-14■
					TZN4L-14■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1/2	100-240VAC	—	CE C  US	TZN4M-24■
					TZN4W-24■
					TZN4H-24■
					TZN4L-24■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1, PV transmission (DC4-20mA)	100-240VAC	—	CE C  US	TZN4M-R4■
					TZN4W-R4■
					TZN4H-R4■
					TZN4L-R4■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1/2, PV transmission (DC4-20mA)	100-240VAC	—	CE C  US	TZN4M-A4■
					TZN4W-A4■
					TZN4H-A4■
					TZN4L-A4■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1, RS485 comm.	100-240VAC	—	CE C  US	TZN4M-T4■
					TZN4W-T4■
					TZN4H-T4■
					TZN4L-T4■
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Event 1/2, RS485 comm.	100-240VAC	—	CE C  US	TZN4M-B4■
					TZN4W-B4■
					TZN4H-B4■
					TZN4L-B4■

Temperature Controllers

Series	Size	Display Method	Control Method	Input Type	Temperature Unit	Setting Range	
Analog, Non-Display, PID Control Temperature Controller TAS Series (8-pin plug type)  W48×H48×L66.7mm TAM Series  W72×H72×L64.5mm TAL Series  W96×H96×L64.5mm		Non-display	Heating	ON/OFF control PID control	Thermocouple: K(CA)	°C	
						0 to 100	
						0 to 200	
						0 to 400	
						0 to 600	
						0 to 800	
						0 to 1,200	
						32 to 212	
						32 to 392	
						32 to 752	
						32 to 1,112	
						32 to 1,472	
			32 to 2,192				
			Heating	ON/OFF control PID control	Thermocouple: J(IC)	°C	0 to 200
						0 to 300	
						0 to 400	
						32 to 392	
						32 to 572	
32 to 752							
Heating	ON/OFF control PID control	RTD: DPt100Ω	°C	-50 to 100			
			0 to 100				
			0 to 200				
			0 to 400				
			°F	-58 to 212			
			32 to 212				
32 to 392							
32 to 752							

□: Type
 S: DIN W48×H48mm
 M: DIN W72×H72mm
 L: DIN W96×H96mm

※Sold separately: 8-pin socket (PG-8, PS-8(N))

Sampling Period	Control Output	Power Supply	Protection Structure	Approval	Model
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TA□-B4■K1C
					TA□-B4■K2C
					TA□-B4■K4C
					TA□-B4■K6C
					TA□-B4■K8C
					TA□-B4■KCC
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TA□-B4■K1F
					TA□-B4■K2F
					TA□-B4■K4F
					TA□-B4■K6F
					TA□-B4■K8F
					TA□-B4■KCF
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TA□-B4■J2C
					TA□-B4■J3C
					TA□-B4■J4C
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TA□-B4■J2F
					TA□-B4■J3F
					TA□-B4■J4F
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TA□-B4■P0C
					TA□-B4■P1C
					TA□-B4■P2C
					TA□-B4■P4C
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TA□-B4■P0F
					TA□-B4■P1F
					TA□-B4■P2F
					TA□-B4■P4F

Temperature Controllers

Series	Display Method	Control Method	Input Type	Temperature Unit	Setting Range	
Analog, Non-Display Type Temperature Controller TOS Series (8-pin plug type)	Non-display	Heating	ON/OFF control, P control	Thermocouple: K(CA)	°C	0 to 100
					0 to 200	
					0 to 300	
					0 to 400	
					0 to 600	
					0 to 800	
		0 to 1200				
		°F	0 to 400			
			0 to 600			
			0 to 600			
			0 to 800			
			0 to 1000			
0 to 1000						
Heating	ON/OFF control, P control	Thermocouple: J(IC)	°C	0 to 100		
				0 to 200		
				0 to 300		
			°F	0 to 400		
				0 to 400		
				0 to 600		
Heating	ON/OFF control, P control	RTD: DPt100Ω	°C	0 to 60		
				0 to 100		
				0 to 200		
			°F	0 to 300		
				0 to 400		
				0 to 400		



W48×H48×L79mm



※Sold separately: 8-pin socket (PG-8, PS-8(N))

Series	Size	Display Method	Control Method	Input Type	Temperature Unit	Setting Range
Analog, Non-Display Type Temperature Controller TOM Series	□: Type M: DIN W72×H72mm L: DIN W96×H96mm	Non-display	Heating	ON/OFF control	Thermocouple: K(CA)	°C
						0 to 100
						0 to 200
						0 to 300
						0 to 400
						0 to 600
			0 to 800			
			°C	0 to 100		
				0 to 200		
				0 to 300		
				0 to 400		
				0 to 100		
0 to 200						
RTD: DPt100Ω	°C					
	0 to 100					
	0 to 200					
	0 to 300					
	0 to 400					
	0 to 400					
TOL Series		Non-display	Heating	P control	Thermocouple: K(CA)	°C
						0 to 100
						0 to 200
						0 to 300
						0 to 400
						0 to 600
			0 to 800			
			°C	0 to 100		
				0 to 200		
0 to 300						
RTD: DPt100Ω	°C					
	0 to 100					
	0 to 200					
0 to 400						

W72×H72×L112mm



W96×H96×L100mm

Control Output	Power Supply	Protection Structure	Approval	Model
■: Type R: Relay (250VAC 2A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TOS-B4■K1C
				TOS-B4■K2C
				TOS-B4■K3C
				TOS-B4■K4C
				TOS-B4■K6C
				TOS-B4■K8C
				TOS-B4■KCC
Relay (250VAC 2A)	100-240VAC	—		TOS-B4RK4F
Relay (250VAC 2A)				TOS-B4RK6F
SSR drive (12VDC) [ON/OFF]				TOS-B4SK6F
Relay (250VAC 2A)				TOS-B4RK8F
SSR drive (12VDC) [ON/OFF]				TOS-B4SKAF
■: Type R: Relay (250VAC 2A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—		TOS-B4■J1C
				TOS-B4■J2C
				TOS-B4■J3C
				TOS-B4■J4C
				TOS-B4■J6C
Relay (250VAC 2A)	100-240VAC	—		TOS-B4RJ2F
■: Type R: Relay (250VAC 2A) S: SSR drive (12VDC) [ON/OFF]				TOS-B4■J4F
				TOS-B4■J6F
				TOS-B4■J8F
Relay (250VAC 2A)	100-240VAC	—		TOS-B4RJAF
■: Type R: Relay (250VAC 2A) S: SSR drive (12VDC) [ON/OFF]				TOS-B4RPXC
				TOS-B4■P1C
				TOS-B4■P2C
				TOS-B4■P3C
Relay (250VAC 2A)				TOS-B4■P4C
				TOS-B4RP4F

Control Output	Power Supply	Protection Structure	Approval	Model
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	110/220VAC	—	—	TO□-F3■K1C
				TO□-F3■K2C
				TO□-F3■K3C
				TO□-F3■K4C
				TO□-F3■K6C
				TO□-F3■K8C
				TO□-F3■KCC
				■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]
TO□-F3■J2C				
TO□-F3■J3C				
TO□-F3■J4C				
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	110/220VAC	—	—	TO□-F3■P1C
				TO□-F3■P2C
				TO□-F3■P4C
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	110/220VAC	—	—	TO□-P3■K1C
				TO□-P3■K2C
				TO□-P3■K3C
				TO□-P3■K4C
				TO□-P3■K6C
				TO□-P3■K8C
				TO□-P3■KCC
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	110/220VAC	—	—	TO□-P3■J1C
				TO□-P3■J2C
				TO□-P3■J3C
				TO□-P3■J4C
■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	110/220VAC	—	—	TO□-P3■P1C
				TO□-P3■P2C
				TO□-P3■P4C

Temperature Controllers

Series	Display Method	Control Method	Input Type	Sampling Period
Thumwheel Switch Setting Type Temperature Controller T3S Series (8-pin plug type)  W48×H48×L77.8mm	3-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				RTD: DPt100Ω
※Sold separately: 8-pin socket (PG-8, PS-8(N))				
Thumwheel Switch Setting Type Temperature Controller T4M Series  W72×H72×L75mm	4-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				Thermocouple: R(PR)
RTD: DPt100Ω				
Thumwheel Switch Setting Type Temperature Controller T4MA Series  W72×H72×L75mm	4-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				Thermocouple: R(PR)
RTD: DPt100Ω				
Thumwheel Switch Setting Type Temperature Controller T3H Series  W48×H96×L70mm	3-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				RTD: DPt100Ω
Thumwheel Switch Setting Type Temperature Controller T3HA Series  W48×H96×L70mm	3-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				RTD: DPt100Ω

※1. Please contact us for temperature unit °F model.

Setting Range*1	Control Output	Alarm/Sub/Dual Output	Power Supply	Protection Structure	Approval	Model
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T3S-B4■K4C-N
0 to 800°C						T3S-B4■K8C-N
0 to 200°C						T3S-B4■J2C-N
0 to 400°C						T3S-B4■J4C-N
0 to 99.9°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T3S-B4■P1C-N
0 to 200°C						T3S-B4■P2C-N
0 to 400°C						T3S-B4■P4C-N
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4M-B4■K4C-N
0 to 800°C						T4M-B4■K8C-N
0 to 1200°C						T4M-B4■KCC-N
0 to 400°C						T4M-B4■J4C-N
600 to 1600°C						T4M-B4■RFC-N
-99.9 to 199.9°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4M-B4■P0C-N
0 to 400°C						T4M-B4■P4C-N
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Alarm output	100-240VAC	—	—	T4MA-B4■K4C-N
0 to 800°C						T4MA-B4■K8C-N
0 to 1200°C						T4MA-B4■KCC-N
0 to 400°C						T4MA-B4■J4C-N
600 to 1600°C						T4MA-B4■RFC-N
-99.9 to 199.9°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Alarm output	100-240VAC	—	—	T4MA-B4■P0C-N
0 to 400°C						T4MA-B4■P4C-N
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T3H-B4■K4C-N
0 to 800°C						T3H-B4■K8C-N
0 to 999°C						T3H-B4■KAC-N
0 to 400°C						T3H-B4■J4C-N
0 to 800°F						T3H-B4■J8F-N
-99 to 199°C						T3H-B4■P0C-N
0 to 99.9°C	T3H-B4■P1C-N					
0 to 400°C	T3H-B4■P4C-N					
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Alarm output	100-240VAC	—	—	T3HA-B4■K4C-N
0 to 800°C						T3HA-B4■K8C-N
0 to 999°C						T3HA-B4■KAC-N
0 to 400°C						T3HA-B4■J4C-N
-99 to 199°C						T3HA-B4■P0C-N
0 to 400°C	T3HA-B4■P4C-N					



Temperature Controllers

Series	Display Method	Control Method	Input Type	Sampling Period
Thumwheel Switch Setting Type Temperature Controller T3HS Series  W48×H96×L70mm	3-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				RTD: DPt100Ω
Thumwheel Switch Setting Type Temperature Controller T4L Series  W96×H96×L70mm	4-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				Thermocouple: R(PR)
Thumwheel Switch Setting Type Temperature Controller T4LA Series  W96×H96×L70mm	4-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				Thermocouple: R(PR)
Thumwheel Switch Setting Type Temperature Controller T4LP Series  W96×H96×L70mm	4-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA)
				Thermocouple: J(IC)
				Thermocouple: R(PR)
				RTD: DPt100Ω

※1. Please contact us for temperature unit °F model.

Setting Range*1	Control Output	Alarm/Sub/Dual Output	Power Supply	Protection Structure	Approval	Model
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Sub output	100-240VAC	—	—	T3HS-B4■K4C-N
0 to 400°C						T3HS-B4■J4C-N
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Sub output	100-240VAC	—	—	T3HS-B4■P4C-N
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4L-B4■K4C-N
0 to 800°C						T4L-B4■K8C-N
0 to 1200°C						T4L-B4■KCC-N
0 to 400°C						T4L-B4■J4C-N
600 to 1600°C						T4L-B4■RFC-N
-99.9 to 199.9°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4L-B4■P0C-N
0 to 400°C						T4L-B4■P4C-N
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Alarm output	100-240VAC	—	—	T4LA-B4■K4C-N
0 to 800°C						T4LA-B4■K8C-N
0 to 1200°C						T4LA-B4■KCC-N
0 to 400°C						T4LA-B4■J4C-N
600 to 1600°C						T4LA-B4■RFC-N
-99.9 to 199.9°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Alarm output	100-240VAC	—	—	T4LA-B4■P0C-N
0 to 400°C						T4LA-B4■P4C-N
0 to 400°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Dual output	100-240VAC	—	—	T4LP-B4■K4C-N
0 to 800°C						T4LP-B4■K8C-N
0 to 1200°C						T4LP-B4■KCC-N
0 to 400°C						T4LP-B4■J4C-N
600 to 1600°C						T4LP-B4■RFC-N
0 to 200.0°C	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Dual output	100-240VAC	—	—	T4LP-B4■P2C-N
0 to 400°C						T4LP-B4■P4C-N


Temperature Controllers

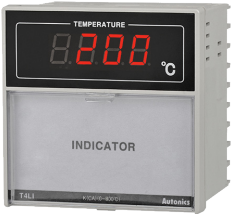
Series	Display Method	Input Type	Sampling Period	Control Output
Temperature Indicator T3NI Series  W48×H24×L48mm	3-digit 7-segment LED	Thermocouple: K(CA)	100ms	Indicator
		Thermocouple: J(IC)		
		RTD: DPt100Ω	100ms	Indicator
Temperature Indicator T3SI Series (8-pin plug type)  W48×H48×L77.8mm	3-digit 7-segment LED	Thermocouple: K(CA)	100ms	Indicator
		Thermocouple: J(IC)		
		RTD: DPt100Ω	100ms	Indicator
※Sold separately: 8-pin socket (PG-8, PS-8(N))				
Temperature Indicator T4MI Series  W72×H72×L75mm	4-digit 7-segment LED	Thermocouple: K(CA)	100ms	Indicator
		Thermocouple: J(IC)		
		Thermocouple: R(PR)		
		RTD: DPt100Ω	100ms	Indicator
Temperature Indicator T4YI Series  W72×H36×L93mm	4-digit 7-segment LED	Thermocouple: K(CA)	100ms	Indicator
		Thermocouple: J(IC)		
		RTD: DPt100Ω	100ms	Indicator
Temperature Indicator T4WI Series  W96×H36×L100mm	4-digit 7-segment LED	Thermocouple: K(CA)	100ms	Indicator
		Thermocouple: J(IC)		
		RTD: DPt100Ω	100ms	Indicator

※1. Please contact us for temperature unit °F model.


Display Range ^{※1}	Power Supply	Protection Structure	Approval	Model
0 to 200°C	12-24VDC	—	—	T3NI-NXNK2C-N
0 to 400°C				T3NI-NXNK4C-N
0 to 800°C				T3NI-NXNK8C-N
0 to 999°C				T3NI-NXNKAC-N
0 to 200°C				T3NI-NXNJ2C-N
0 to 400°C				T3NI-NXNJ4C-N
0 to 500°C				T3NI-NXNJ5C-N
-99.9 to 99.9°C	12-24VDC	—	—	T3NI-NXNP0C-N
0 to 99.9°C				T3NI-NXNP1C-N
0 to 200°C				T3NI-NXNP2C-N
0 to 400°C				T3NI-NXNP4C-N
0 to 800°C	100-240VAC	—	—	T3SI-N4NK8C-N
0 to 400°C				T3SI-N4NJ4C-N
0 to 99.9°C	100-240VAC	—	—	T3SI-N4NP1C-N
0 to 400°C				T3SI-N4NP4C-N
0 to 800°C	100-240VAC	—	—	T4MI-N4NK8C-N
0 to 1200°C				T4MI-N4NKCC-N
0 to 400°C				T4MI-N4NJ4C-N
600 to 1600°C				T4MI-N4NRFC-N
-99.9 to 199.9°C	100-240VAC	—	—	T4MI-N4NP0C-N
0 to 400°C				T4MI-N4NP4C-N
0 to 1200°C	100-240VAC	—	—	T4YI-N4NKCC-N
0 to 500°C				T4YI-N4NJ5C-N
-99.9 to 199.9°C	100-240VAC	—	—	T4YI-N4NP0C-N
0 to 400°C				T4YI-N4NP4C-N
0 to 1200°C	100-240VAC	—	—	T4WI-N4NKCC-N
0 to 500°C				T4WI-N4NJ5C-N
-99.9 to 199.9°C	100-240VAC	—	—	T4WI-N4NP0C-N
0 to 400°C				T4WI-N4NP4C-N


Temperature Controllers

Series	Display Method	Input Type	Sampling Period	Control Output
Temperature Indicator T3HI Series  W48×H96×L70mm	3-digit 7-segment LED	Thermocouple: K(CA)	100ms	Indicator
		Thermocouple: J(IC)		
		RTD: DPt100Ω	100ms	Indicator

Temperature Indicator T4LI Series  W96×H96×L70mm	4-digit 7-segment LED	Thermocouple: K(CA)	100ms	Indicator
		Thermocouple: J(IC)		
		Thermocouple: R(PR)		
		RTD: DPt100Ω	100ms	Indicator


※1. Please contact us for temperature unit °F model.

Series	Display Method	Input CH	Input Type	Control Output
5-CH Temperature Indicator T4WM Series  W96×H48×L100mm	4-digit 7-segment LED	5-CH	Thermocouple: K(CA)	Indicator
			Thermocouple: J(IC)	
			RTD: DPt100Ω	Indicator

Series	Display Method	Control Method	Input Type	Sampling Period	Input Range	
Refrigeration Temperature Controller TC3YF Series  W72×H36×L77mm	3-digit 7-segment LED	Cooling	ON/OFF control	Thermistor(NTC) ^{※1} : 5kΩ	500ms	-40.0 to 99.9°C -40.0 to 212°F
			ON/OFF control	Thermistor(NTC) ^{※1} : 5kΩ	500ms	-40.0 to 99.9°C -40.0 to 212°F
		ON/OFF control	RTD ^{※2} : DPt100Ω	500ms	-99.9 to 99.9°C -148 to 212°F	
			RTD ^{※2} : DPt100Ω	500ms	-99.9 to 99.9°C -148 to 212°F	

※1. Accessory: Thermistor (NTC)

※2. Sold separately: RTD

Series	Display Method	Control Method	Input Type	Sampling Period	
Simple Operation Type Temperature Controller TC3YT Series  W72×H36×L77mm	3-digit 7-segment LED	Heating	ON/OFF control, P control	Thermocouple: K(CA), J(IC) RTD: DPt100Ω	500ms

Display Range ^{※1}	Power Supply	Protection Structure	Approval	Model
0 to 999°C	100-240VAC	—	—	T3HI-N4NKAC-N
0 to 400°C				T3HI-N4NJ4C-N
-99 to 199°C	100-240VAC	—	—	T3HI-N4NP0C-N
0 to 400°C				T3HI-N4NP4C-N

0 to 800°C	100-240VAC	—	—	T4LI-N4NK8C-N
0 to 1200°C				T4LI-N4NKCC-N
0 to 400°C				T4LI-N4NJ4C-N
600 to 1600°C				T4LI-N4NRFC-N
-99.9 to 199.9°C	100-240VAC	—	—	T4LI-N4NP0C-N
0 to 400°C				T4LI-N4NP4C-N

Display Range	Power Supply	Protection Structure	Approval	Model
0 to 1200°C	110/220VAC	—	—	T4WM-N3NKCC
0 to 500°C				T4WM-N3NJ5C
-99.9 to 199.9°C	110/220VAC	—	—	T4WM-N3NP0C
0 to 399°C				T4WM-N3NP4C

Control Output			Power Supply	Protection Structure	Approval	Model
Compressor	Defrost	Evaporator-fan				
Relay (250VAC 5A)	—	—	12-24VDC	IP65 (front panel)	—	TC3YF-11R
Relay (250VAC 5A)	Relay (250VAC 10A)	—				TC3YF-21R
Relay (250VAC 5A)	Relay (250VAC 10A)	Relay (250VAC 5A)				TC3YF-31R
Relay (250VAC 5A)	—	—	100-240VAC	IP65 (front panel)	cUL ^{us}	TC3YF-14R
Relay (250VAC 5A)	Relay (250VAC 10A)	—				TC3YF-24R
Relay (250VAC 5A)	Relay (250VAC 10A)	Relay (250VAC 5A)				TC3YF-34R
Relay (250VAC 5A)	—	—	12-24VDC	IP65 (front panel)	—	TC3YF-11R
Relay (250VAC 5A)	Relay (250VAC 10A)	—				TC3YF-21R
Relay (250VAC 5A)	Relay (250VAC 10A)	Relay (250VAC 5A)				TC3YF-31R
Relay (250VAC 5A)	—	—	100-240VAC	IP65 (front panel)	cUL ^{us}	TC3YF-14R
Relay (250VAC 5A)	Relay (250VAC 10A)	—				TC3YF-24R
Relay (250VAC 5A)	Relay (250VAC 10A)	Relay (250VAC 5A)				TC3YF-34R

Control Output			Power Supply	Protection Structure	Approval	Model
Relay (3A)						
	100-240VAC	IP65 (front panel)	cUL ^{us}			TC3YT-B4R3
Relay (16A)						TC3YT-B4R16

Temperature Controllers

Series	Display Method	Measured Range		Output	
		Temperature	Humidity	Temperature	Humidity
Room Type Temperature/Humidity Sensor THD-R Series  W60×H80×L30.5mm	Non-display	-19.9 to 60.0°C	—	DPT100Ω resistance value	—
	Non-display	-19.9 to 60.0°C	0.0 to 99.9%RH (recommended : 0.0 to 90.0%)	DPT100Ω resistance value	Current (DC4-20mA)
				Current (DC4-20mA)	Current (DC4-20mA)
				Voltage (1-5VDC)	Voltage (1-5VDC)
RS485 comm.	RS485 comm.				
Wall Mount Type Temperature/Humidity Sensor THD-W Series  W72×H85×L34.5mm (except sensor pole)	Non-display	-19.9 to 60.0°C	0.0 to 99.9%RH	Current (DC4-20mA)	Current (DC4-20mA)
				Voltage (1-5VDC)	Voltage (1-5VDC)
				RS485 comm.	RS485 comm.
	3-digit 7-segment LED	-19.9 to 60.0°C	0.0 to 99.9%RH	Current (DC4-20mA)	Current (DC4-20mA)
Voltage (1-5VDC)	Voltage (1-5VDC)				
RS485 comm.	RS485 comm.				
Duct Mount Type Temperature/Humidity Sensor THD-D Series  W72×H85×L34.5mm (except sensor pole)	Non-display	-19.9 to 60.0°C	0.0 to 99.9%RH	Current (DC4-20mA)	Current (DC4-20mA)
				Voltage (1-5VDC)	Voltage (1-5VDC)
				RS485 comm.	RS485 comm.
	3-digit 7-segment LED	-19.9 to 60.0°C	0.0 to 99.9%RH	Current (DC4-20mA)	Current (DC4-20mA)
Voltage (1-5VDC)				Voltage (1-5VDC)	
RS485 comm.				RS485 comm.	

Sampling Period	Sensor Pole Length	Power Supply	Protection Structure	Approval	Model
—	—	—	IP10	CE	THD-R-PT
500ms	—	24VDC	IP10	CE	THD-R-PT/C
				CE	THD-R-C
				CE	THD-R-V
				CE K	THD-R-T
500ms	100m	24VDC	IP65 (except sensor part)	CE	THD-W1-C
	200m				THD-W2-C
	100m			CE	THD-W1-V
	200m				THD-W2-V
	100m			CE K	THD-W1-T
	200m				THD-W2-T
500ms	100m	24VDC	IP65 (except sensor part)	CE	THD-WD1-C
	200m				THD-WD2-C
	100m			CE	THD-WD1-V
	200m				THD-WD2-V
	100m			CE K	THD-WD1-T
	200m				THD-WD2-T
500ms	100m	24VDC	IP65 (except sensor part)	CE	THD-D1-C
	200m				THD-D2-C
	100m			CE	THD-D1-V
	200m				THD-D2-V
	100m			CE K	THD-D1-T
	200m				THD-D2-T
500ms	100m	24VDC	IP65 (except sensor part)	CE	THD-DD1-C
	200m				THD-DD2-C
	100m			CE	THD-DD1-V
	200m				THD-DD2-V
	100m			CE K	THD-DD1-T
	200m				THD-DD2-T