Autonics
Sensors & Controllers

Remtron
AUTOMATION

VER. 16

SELECTION GUIDE

SENSORS
CONTROLLERS
MOTION DEVICES

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Door / Area Sensor

Series	Sensing Method	Mounting Height	Light Source	Power Supply	Power Consumption	Control Output
Door Sensor **ADS-A Series**  W224×H60×L26mm	Diffuse Reflective Type	2.0 to 2.7m	Infrared LED (850nm modulated)	24-240VAC 24-240VDC	Max. 4VA (at 240VAC)	Relay (SPST(1a))
				12-24VAC 12-24VDC	Max. 2VA (at 24VAC)	

Series	Sensing Method	Sensing Distance	Light Source	Power Supply	Current Consumption And Power Consumption	Control Output	Sensor Mounting
Door Side Sensor **ADS-SE**  W77×H30×L44mm	Through-beam type	0 to 10m	Infrared LED (850nm modulated)	12-24VAC 12-24VDC	Current Consumption : Max. 2VA Power Consumption : Max. 50mA	Relay (SPST(1a))	2-CH
Economical Door Side Sensor **ADS-SE1/2**  W77×H24×L44mm	Through-beam type	0 to 10m	Infrared LED (850nm modulated)	12-24VAC 12-24VDC	Current Consumption : Max. 2VA Power Consumption : Max. 50mA	Relay (SPST(1a))	1-CH
							2-CH

Series	Sensing Method	Sensing Distance	Light Source	Optical Axis Pitch	Number Of Optical Axes	Sensing Height (mm)	Power Supply
Picking Sensor - Plastic Case **BWPK Series**  W30×H10.5×L140mm	Through-beam type (direct beam)	Long distance mode: 0.1 to 3m Short distance mode: 0.05 to 1m	Infrared LED (850nm modulated)	25mm	5	100	12-24VDC

Pressure Sensors

Series	Applicable Fluid	Pressure Port Direction	Pressure Port	Connection	Pressure Type	Rated Pressure Range	Display Pressure Unit
Pneumatic, Square, Connector Type Digital Pressure Sensor **PSAN Series**  W30×H30×L30.7mm	Air, Non-corrosive gas	Rear fitting	■: Type R1/8 Rc(PT)1/8 NPT1/8	Connector type (connector type cable: 2m)	Standard pressure	0.0 to 100.0kPa	MPa, kPa, kgf/cm^2, bar, psi
						0 to 1,000kPa	MPa, kPa, kgf/cm^2, bar, psi
					Negative pressure	0.0 to -101.3kPa	kPa, kgf/cm^2, bar, psi, mmHg, inHg, mmH_2O
					Compound pressure	-101.3 to 100.0kPa	kPa, kgf/cm^2, bar, psi, mmHg, inHg, mmH_2O
Fluid, Square, Connector Type Digital Pressure Sensor **PSAN Series**  W30×H30×L32mm	Air, Non-corrosive gas and fluid that will not corrode SUS316L	Bottom fitting	■: Type R1/8 NPT1/8	Connector type (connector type cable: 2m)	Standard pressure	0.0 to 100.0kPa	MPa, kPa, kgf/cm^2, bar, psi
						0 to 1,000kPa	MPa, kPa, kgf/cm^2, bar, psi
			7/16-20UNF	Connector type (connector type cable: 2m)	Standard pressure	0 to 1,000kPa	MPa, kPa, kgf/cm^2, bar, psi
			■: Type R1/8 NPT1/8	Connector type (connector type cable: 2m)	Negative pressure	0.0 to -101.3kPa	kPa, kgf/cm^2, bar, psi, mmHg, inHg, mmH_2O
					Compound pressure	-101.3 to 100.0kPa	kPa, kgf/cm^2, bar, psi, mmHg, inHg, mmH_2O
Fluid, Square, Cable Type Digital Pressure Sensor **PSAN Series**  W30×H30×L42.3mm	Air, Non-corrosive gas and fluid that will not corrode SUS316L	Rear fitting	■: Type R1/8 9/16-18UNF	Cable type (cable type cable: 3m)	Standard pressure	0 to 1,000kPa	MPa, kPa, kgf/cm^2, bar, psi
					Compound pressure	-101.3 to 100.0kPa	kPa, kgf/cm^2, bar, psi, mmHg, inHg, mmH_2O

※Sold separately: Front cover (PSO-P01), Panel bracket (PSO-B02/B03)

Series	Applicable Fluid	Pressure Port Direction	Pressure Port	Connection	Pressure Type	Rated Pressure Range	Display Pressure Unit
Pneumatic, Square, Cable Type Digital Pressure Sensor **PSA Series**  W30×H30×L38.5mm	Air, Non-corrosive gas	Rear fitting (3-direction)	■ : Type Rc(PT)1/8 NPT1/8	Cable type (cable type cable: 2m)	Standard pressure	0.0 to 100.0kPa	kPa, kgf/cm^2, bar, psi
						0 to 1,000kPa	
					Negative pressure	0.0 to -101.3kPa	kPa, kgf/cm^2, bar, psi, mmHg, inHg, mmH_2O
					Compound pressure	-100.0 to 100.0kPa	kPa, kgf/cm^2, bar, psi, mmHg, inHg, mmH_2O

※Sold separately: Front cover (PSO-02), Panel bracket (PSO-01)

Control Output		Option Input/Output	Power Supply	Current Consumption	Protection Structure	Approval	Model
NPN Open Collector	PNP Open Collector						
●	—	□: Type V: Voltage (1-5VDC) output A: Current (DC4-20mA) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP40	CE	PSAN-01C□-■
—	●						PSAN-01CP□-■
●	—						PSAN-1C□-■
—	●						PSAN-1CP□-■
●	—	□: Type V: Voltage (1-5VDC) output A: Current (DC4-20mA) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP40	CE	PSAN-V01C□-■
—	●						PSAN-V01CP□-■
●	—				IP40	CE	PSAN-C01C□-■
—	●						PSAN-C01CP□-■
●	—	□: Type V: Voltage (1-5VDC) output A: Current (DC4-20mA) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP40	CE	PSAN-L01C□-■
—	●						PSAN-L01CP□-■
●	—	□: Type V: Voltage (1-5VDC) output A: Current (DC4-20mA) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP40	CE	PSAN-L1C□-■
—	●						PSAN-L1CP□-■
●	—	Voltage (1-5VDC) output	12-24VDC		IP40	CE	PSAN-L1CV-7/16-20UNF
●	—	□: Type V: Voltage (1-5VDC) output A: Current (DC 4-20mA) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP40	CE	PSAN-LV01C□-■
—	●						PSAN-LV01CP□-■
●	—	□: Type V: Voltage (1-5VDC) output A: Current (DC4-20mA) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP40	CE	PSAN-LC01C□-■
—	●						PSAN-LC01CP□-■
●	—	□: Type V: Voltage (1-5VDC) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP65	CE	PSAN-B1□-■
—	●						PSAN-B1P□-■
●	—	□: Type V: Voltage (1-5VDC) output H: HOLD/ AUTO SHIFT input	12-24VDC	Voltage output type : Max. 50mA Current output type : Max. 75mA	IP65	CE	PSAN-BC01□-■
—	●						PSAN-BC01P□-■

Control Output		Option Output	Power Supply	Current Consumption	Protection Structure	Approval	Model
NPN Open Collector	PNP Open Collector						
●	—	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSA-01-■
—	●						PSA-01P-■
●	—						PSA-1-■
—	●						PSA-1P-■
●	—	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSA-V01-■
—	●						PSA-V01P-■
●	—	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSA-C01-■
—	●						PSA-C01P-■

Pressure Sensors

Series	Applicable Fluid	Pressure Port Direction	Connection	Pressure Type	Rated Pressure Range	Display Pressure Unit
Pneumatic, Rectangular, Connector Type Digital Pressure Sensor **PSB Series**  W52×H10×L25.5mm	Air, Non-corrosive gas	M5	Connector type (Connector type cable: 3m)	Standard pressure	0.0 to 100.0kPa	kPa, kgf/cm², bar, psi
					0 to 1,000kPa	kPa, kgf/cm², bar, psi
				Negative pressure	0.0 to -101.3kPa	kPa, kgf/cm², bar, psi, mmHg, inHg, mmH_2O
				Compound pressure	-100.0 to 100.0kPa	kPa, kgf/cm², bar, psi, mmHg, inHg, mmH_2O
Pneumatic, Rectangular, Cable Type Digital Pressure Sensor **PSB Series**  W54.2×H10.4×L25mm	Air, Non-corrosive gas	M5	Cable type (cable type cable: 2m)	Standard pressure	0.0 to 100.0kPa	kPa, kgf/cm², bar, psi
					0 to 1,000kPa	
					0.0 to 100.0kPa	kPa, kgf/cm², bar, psi
					0 to 1,000kPa	
				Negative pressure	0.0 to -101.3kPa	kPa, kgf/cm², bar, psi, mmHg, inHg, mmH_2O
				Compound pressure	-100.0 to 100.0kPa	kPa, kgf/cm², bar, psi, mmHg, inHg, mmH_2O

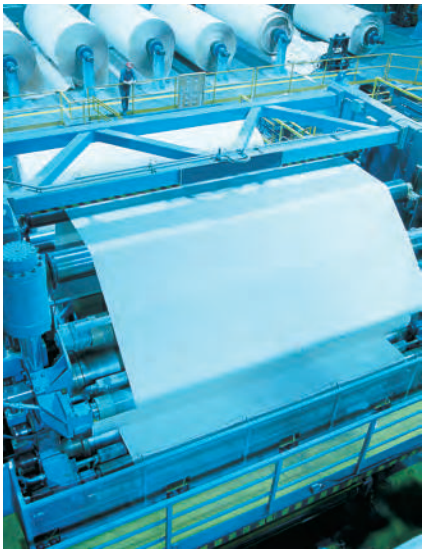
Series	Applicable Fluid	Pressure Port Direction	Connection	Pressure Type	Rated Pressure Range	Display Pressure Unit
Compact, Cable Type Pressure Sensor **PSS Series**  W11.8×H29.3×L24.8mm	Air, Non-corrosive gas	R1/8	Cable type (cable type cable: 3m)	Standard pressure	0.0 to 100.0kPa	—
					0 to 1,000kPa	—
				Negative pressure	0.0 to -101.3kPa	—
				Compound pressure	-101.3 to 100.0kPa	—

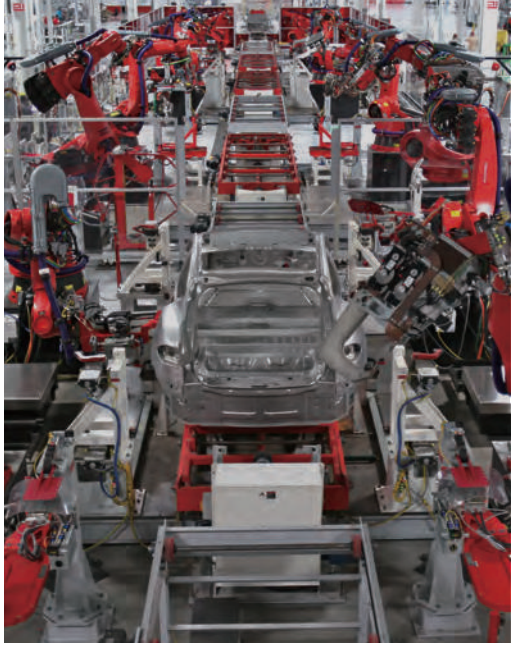
※Pressure Conversion Chart

from \ to	Pa	kPa	MPa	kgf/cm²	mmHg	mmH_2O	psi	bar	inHg
1Pa	1	0.001	0.000001	0.000010197	0.007501	0.101972	0.000145038	0.00001	0.0002953
1kPa	1,000.000	1	0.001	0.010197	7.500617	101.971626	0.145038	0.01	0.2953
1MPa	1,000,000	1,000	1	10.197162	7,500.61683	101,971.626	145.038243	10	295.299875
1kgf/cm²	98,066.5	98.0665	0.098067	1	735.55924	10,000.0005	14.223393	0.980665	28.959025
1mmHg	133.322368	0.133322	0.000133	0.001359	1	13.595099	0.019337	0.001333	0.039370
1mmH_2O	9.80665	0.009807	—	0.000099	0.073556	1	0.00142	0.000098	0.002896
1psi	6,894.733	6.89473	0.006895	0.070307	51.714752	703.016716	1	0.068947	2.036014
1bar	100,000.0	100.0000	0.100000	1.019716	750.062	10,197.1626	14.503824	1	29.529988
1inHg	3,386.388	3.386388	0.003386	0.034532	25.40022	345.315507	0.491156	0.033864	1

Control Output		Option Output	Power Supply	Current Consumption	Protection Structure	Approval	Model
NPN Open Collector	PNP Open Collector						
—	●	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-01CP-M5
●	—						PSB-01C-M5
●	—	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-1C-M5
—	●						PSB-1CP-M5
●	—	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-V01C-M5
—	●						PSB-V01CP-M5
—	●	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-C01CP-M5
●	—						PSB-C01C-M5
●	—	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-01-M5
							PSB-1-M5
—	●	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-01P-M5
							PSB-1P-M5
—	●	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-V01P-M5
●	—						PSB-V01-M5
—	●	Voltage (1-5VDC) output	12-24VDC	Max. 50mA	IP40	CE	PSB-C01P-M5
●	—						PSB-C01-M5

Option Output	Power Supply	Current Consumption	Protection Structure	Approval	Model
Voltage (1-5VDC) output	12-24VDC	Max. 15mA	IP40	CE	PSS-01V-R1/8
Current (DC4-20mA) output	12-24VDC	—	IP40	CE	PSS-01A-R1/8
Voltage (1-5VDC) output	12-24VDC	Max. 15mA	IP40	CE	PSS-1V-R1/8
Current (DC4-20mA) output	12-24VDC	—	IP40	CE	PSS-1A-R1/8
Voltage (1-5VDC) output	12-24VDC	Max. 15mA	IP40	CE	PSS-V01V-R1/8
Current (DC4-20mA) output	12-24VDC	—	IP40	CE	PSS-V01A-R1/8
Voltage (1-5VDC) output	12-24VDC	Max. 15mA	IP40	CE	PSS-C01V-R1/8
Current (DC4-20mA) output	12-24VDC	—	IP40	CE	PSS-C01A-R1/8





CONTROLLERS

Temperature Controllers · SSRs · Power Controllers · Counters · Timers · Panel Meters · Tacho / Speed / Pulse Meters · Display Units · Sensor Controllers · Switching Mode Power Supplies · Graphic / Logic Panels · Field Network Devices

Temperature Controllers

High Performance, General-Purpose · Single Display · Dual Display PID Control Temperature Controller / Board Type, Dual PID Control Temperature Controller / Dual PID Control Temperature Controller / Thumwheel Switch Setting Type Temperature Controller / Temperature Indicator / Temperature · Humidity Sensor / USB 2-CH Temperature Data Logger

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	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
			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	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			
		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			

※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)	CE cULus	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)	CE cULus	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)	CE cULus	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)	CE cULus	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)	CE cULus	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**  W48×H48×64.5mm	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
			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
			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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	—	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL 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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Relay (250VAC 3A)	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL 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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL 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
■: 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, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL 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
■: 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)	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL 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
■: 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]	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL 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

High Performance, General-Purpose · Single Display · Dual Display PID Control Temperature Controller / Board Type, Dual PID Control Temperature Controller / Dual PID Control Temperature Controller / Thumwheel Switch Setting Type Temperature Controller / Temperature Indicator / Temperature · Humidity Sensor / USB 2-CH Temperature Data Logger

Series	Display Method	Control Method		Input Type	Sampling Period
High Performance, General-Purpose, PID Control Temperature Controller **TK4M 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), 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
		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
			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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	—	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL us	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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Relay (250VAC 3A)	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL us	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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL us	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
■: 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, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL us	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
■: 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)	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL us	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
■: 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]	CT, Digital (DI-1)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL us	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
				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
				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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	—	CT, Digital (DI-1/2)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL us	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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Relay (250VAC 3A)	CT, Digital (DI-1/2)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL us	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
■: Type R: Relay (250VAC 3A) C: Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	Current (DC0/4-20mA) or SSR drive (11VDC) [ON/OFF]	CT, Digital (DI-1/2)	Alarm 1	24VAC, 24-48VDC	IP65 (front panel)	CE c UL us	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
■: 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, Digital (DI-1/2)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL us	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
■: 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)	CT, Digital (DI-1/2)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL us	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
■: 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]	CT, Digital (DI-1/2)	Alarm 1	100-240VAC	IP65 (front panel)	CE c UL us	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

<table>
<tr><th>Series</th><th>Size</th><th>Display Method</th><th colspan="2">Control Method</th><th>Input Type</th><th>Sampling Period</th></tr>
<tr><td rowspan="8">Single Display, PID Control Temperature Controller
TC4S Series
 
W48×H48×L64.5mm
TC4M Series
 
W72×H72×L64.5m
TC4W Series
 
W96×H48×L64.5mm
TC4H Series
 
W48×H96×L64.5mm
TC4L Series
 
W96×H96×L64.5mm</td><td rowspan="8">□: Type
S: DIN W48×H48mm
M: DIN W72×H72mm
W: DIN W96×H48mm
H: DIN W48×H96mm
L: DIN W96×H96mm</td><td rowspan="8">4-digit 7-segment LED</td><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td rowspan="2">Single Display, PID Control Temperature Controller
TC4SP Series (11-pin plug type)
 
W48×H48×L72.2mm
TC4Y Series
 
W72×H36×L77mm</td><td rowspan="2">□: Type
SP: DIN W48×H48mm
Y: DIN W72×H36mm</td><td rowspan="2">4-digit 7-segment LED</td><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
<tr><td>Heating, Cooling</td><td>ON/OFF control, P, PI, PD, PID control</td><td>Thermocouple: K(CA), J(IC), L(IC)
RTD: DPt100Ω, Cu50Ω</td><td>100ms</td></tr>
</table>

※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 cULus	TC4□-N2N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	—	24VAC, 24-48VDC	—	CE cULus	TC4□-N2R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1	24VAC, 24-48VDC	—	CE cULus	TC4□-12R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1/2	24VAC, 24-48VDC	—	CE cULus	TC4□-22R
Indicator	—	100-240VAC	—	CE cULus	TC4□-N4N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	—	100-240VAC	—	CE cULus	TC4□-N4R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1	100-240VAC	—	CE cULus	TC4□-14R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE cULus	TC4□-24R
Indicator	—	24VAC, 24-48VDC	—	CE cULus	TC4□-N2N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	—	24VAC, 24-48VDC	—	CE cULus	TC4□-N2R
	Alarm 1	24VAC, 24-48VDC	—	CE cULus	TC4□-12R
Indicator	—	100-240VAC	—	CE cULus	TC4□-N4N
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	—	100-240VAC	—	CE cULus	TC4□-N4R
	Alarm 1	100-240VAC	—	CE cULus	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 cULus	TCN4S-22R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE cULus	TCN4S-24R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF]	Alarm 1/2	24VAC, 24-48VDC	—	CE cULus	TCN4S-22R-P
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE cULus	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 cULus	TCN4M-22R
					TCN4H-22R
					TCN4L-22R
Relay (250VAC 3A) or SSR drive (12VDC) [ON/OFF, phase, cycle]	Alarm 1/2	100-240VAC	—	CE cULus	TCN4M-24R
					TCN4H-24R
					TCN4L-24R

Temperature Controllers

High Performance, General-Purpose · Single Display · Dual Display PID Control Temperature Controller / Board Type, Dual PID Control Temperature Controller / Dual PID Control Temperature Controller / Thumwheel Switch Setting Type Temperature Controller / Temperature Indicator / Temperature · Humidity Sensor / USB 2-CH Temperature Data Logger

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	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
TZ4W 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
TZ4H 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
TZ4L 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
		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 UL 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 UL 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 UL 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 UL 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 UL 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 UL 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 UL 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 UL 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
		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
		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
		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 cULus	TZN4S-14R
SSR drive (12VDC) [ON/OFF]	Event 1	100-240VAC	—	CE cULus	TZN4S-14S
Current (DC4-20mA)	Event 1	100-240VAC	—	CE cULus	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 cULus	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 cULus	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 cULus	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 cULus	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 cULus	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 cULus	TZN4M-B4■ TZN4W-B4■ TZN4W-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	□: Type S: DIN W48×H48mm M: DIN W72×H72mm L: DIN W96×H96mm	Non-display	Heating	ON/OFF control PID control	Thermocouple: K(CA)	℃	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)	℃	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	℃	-50 to 100
							0 to 100
							0 to 200
							0 to 400
						℉	-58 to 212
							32 to 212
							32 to 392
							32 to 752

※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	—	CE cULus	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	—	CE cULus	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	—	CE cULus	TA□-B4■J2C
					TA□-B4■J3C
					TA□-B4■J4C
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—	CE cULus	TA□-B4■J2F
					TA□-B4■J3F
					TA□-B4■J4F
100ms	■: Type R: Relay (250VAC 3A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—	CE cULus	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	—	CE cULus	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)**  W48×H48×L79mm	Non-display	Heating	ON/OFF control, P control	Thermocouple: K(CA)	℃	0 to 100
						0 to 200
						0 to 300
						0 to 400
						0 to 600
						0 to 800
						0 to 1200
					℉	0 to 400
						0 to 600
						0 to 600
						0 to 800
						0 to 1000
		Heating	ON/OFF control, P control	Thermocouple: J(IC)	℃	0 to 100
						0 to 200
						0 to 300
						0 to 400
						0 to 600
					℉	0 to 200
						0 to 400
						0 to 600
						0 to 800
						0 to 1000
		Heating	ON/OFF control, P control	RTD: DPt100Ω	℃	0 to 60
						0 to 100
						0 to 200
						0 to 300
						0 to 400
					℉	0 to 400

※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**  W72×H72×L112mm **TOL Series**  W96×H96×L100mm	□: Type M: DIN W72×H72mm L: DIN W96×H96mm	Non-display	Heating	ON/OFF control	Thermocouple: K(CA)	℃	0 to 100
							0 to 200
							0 to 300
							0 to 400
							0 to 600
							0 to 800
							0 to 1200
					Thermocouple: J(IC)	℃	0 to 100
							0 to 200
							0 to 300
							0 to 400
					RTD: DPt100Ω	℃	0 to 100
							0 to 200
							0 to 400
			Heating	P control	Thermocouple: K(CA)	℃	0 to 100
							0 to 200
							0 to 300
							0 to 400
							0 to 600
							0 to 800
							0 to 1200
					Thermocouple: J(IC)	℃	0 to 100
							0 to 200
							0 to 300
							0 to 400
					RTD: DPt100Ω	℃	0 to 100
							0 to 200
							0 to 400

Control Output	Power Supply	Protection Structure	Approval	Model
■: Type R: Relay (250VAC 2A) S: SSR drive (12VDC) [ON/OFF]	100-240VAC	—	c UL us	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	—	c UL us	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	—	c UL us	TOS-B4■J1C
				TOS-B4■J2C
				TOS-B4■J3C
				TOS-B4■J4C
				TOS-B4■J6C
Relay (250VAC 2A)	100-240VAC	—	c UL us	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)				TOS-B4RJAF
Relay (250VAC 2A)	100-240VAC	—	c UL us	TOS-B4RPXC
■: Type R: Relay (250VAC 2A) S: SSR drive (12VDC) [ON/OFF]				TOS-B4■P1C
				TOS-B4■P2C
				TOS-B4■P3C
				TOS-B4■P4C
Relay (250VAC 2A)				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]	110/220VAC	—	—	TO□-F3■J1C
				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)	100ms
				Thermocouple: J(IC)	
				RTD: DPt100Ω	100ms
※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)	100ms
				Thermocouple: J(IC)	
				Thermocouple: R(PR)	
				RTD: DPt100Ω	100ms
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)	100ms
				Thermocouple: J(IC)	
				Thermocouple: R(PR)	
				RTD: DPt100Ω	100ms
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)	100ms
				Thermocouple: J(IC)	
				RTD: DPt100Ω	100ms
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)	100ms
				Thermocouple: J(IC)	
				RTD: DPt100Ω	100ms

※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℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T3S-B4■K4C-N
0 to 800℃						T3S-B4■K8C-N
0 to 200℃						T3S-B4■J2C-N
0 to 400℃						T3S-B4■J4C-N
0 to 99.9℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T3S-B4■P1C-N
0 to 200℃						T3S-B4■P2C-N
0 to 400℃						T3S-B4■P4C-N
0 to 400℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4M-B4■K4C-N
0 to 800℃						T4M-B4■K8C-N
0 to 1200℃						T4M-B4■KCC-N
0 to 400℃						T4M-B4■J4C-N
600 to 1600℃						T4M-B4■RFC-N
-99.9 to 199.9℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4M-B4■P0C-N
0 to 400℃						T4M-B4■P4C-N
0 to 400℃	■: 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℃						T4MA-B4■K8C-N
0 to 1200℃						T4MA-B4■KCC-N
0 to 400℃						T4MA-B4■J4C-N
600 to 1600℃						T4MA-B4■RFC-N
-99.9 to 199.9℃	■: 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℃						T4MA-B4■P4C-N
0 to 400℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T3H-B4■K4C-N
0 to 800℃						T3H-B4■K8C-N
0 to 999℃						T3H-B4■KAC-N
0 to 400℃						T3H-B4■J4C-N
0 to 800℉						T3H-B4■J8F-N
-99 to 199℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T3H-B4■P0C-N
0 to 99.9℃						T3H-B4■P1C-N
0 to 400℃						T3H-B4■P4C-N
0 to 400℃	■: 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℃						T3HA-B4■K8C-N
0 to 999℃						T3HA-B4■KAC-N
0 to 400℃						T3HA-B4■J4C-N
-99 to 199℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	Alarm output	100-240VAC	—	—	T3HA-B4■P0C-N
0 to 400℃						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)	100ms
				Thermocouple: J(IC)	
				RTD: DPt100Ω	100ms
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)	100ms
				Thermocouple: J(IC)	
				Thermocouple: R(PR)	
				RTD: DPt100Ω	100ms
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)	100ms
				Thermocouple: J(IC)	
				Thermocouple: R(PR)	
				RTD: DPt100Ω	100ms
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)	100ms
				Thermocouple: J(IC)	
				Thermocouple: R(PR)	
				RTD: DPt100Ω	100ms

※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℃	■: 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℃						T3HS-B4■J4C-N
0 to 400℃	■: 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℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4L-B4■K4C-N
0 to 800℃						T4L-B4■K8C-N
0 to 1200℃						T4L-B4■KCC-N
0 to 400℃						T4L-B4■J4C-N
600 to 1600℃						T4L-B4■RFC-N
-99.9 to 199.9℃	■: Type R: Relay (250VAC 5A) S: SSR drive (12VDC) [ON/OFF] C: Current (DC4-20mA)	—	100-240VAC	—	—	T4L-B4■P0C-N
0 to 400℃						T4L-B4■P4C-N
0 to 400℃	■: 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℃						T4LA-B4■K8C-N
0 to 1200℃						T4LA-B4■KCC-N
0 to 400℃						T4LA-B4■J4C-N
600 to 1600℃						T4LA-B4■RFC-N
-99.9 to 199.9℃	■: 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℃						T4LA-B4■P4C-N
0 to 400℃	■: 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℃						T4LP-B4■K8C-N
0 to 1200℃						T4LP-B4■KCC-N
0 to 400℃						T4LP-B4■J4C-N
600 to 1600℃						T4LP-B4■RFC-N
0 to 200.0℃	■: 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℃						T4LP-B4■P4C-N

Temperature Controllers

High Performance, General-Purpose · Single Display · Dual Display PID Control Temperature Controller / Board Type, Dual PID Control Temperature Controller / Dual PID Control Temperature Controller / Thumwheel Switch Setting Type Temperature Controller / Temperature Indicator / Temperature · Humidity Sensor / USB 2-CH Temperature Data Logger

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℃	12-24VDC	—	—	T3NI-NXNK2C-N
0 to 400℃				T3NI-NXNK4C-N
0 to 800℃				T3NI-NXNK8C-N
0 to 999℃				T3NI-NXNKAC-N
0 to 200℃				T3NI-NXNJ2C-N
0 to 400℃				T3NI-NXNJ4C-N
0 to 500℃				T3NI-NXNJ5C-N
-99.9 to 99.9℃	12-24VDC	—	—	T3NI-NXNP0C-N
0 to 99.9℃				T3NI-NXNP1C-N
0 to 200℃				T3NI-NXNP2C-N
0 to 400℃				T3NI-NXNP4C-N
0 to 800℃	100-240VAC	—	—	T3SI-N4NK8C-N
0 to 400℃				T3SI-N4NJ4C-N
0 to 99.9℃	100-240VAC	—	—	T3SI-N4NP1C-N
0 to 400℃				T3SI-N4NP4C-N
0 to 800℃	100-240VAC	—	—	T4MI-N4NK8C-N
0 to 1200℃				T4MI-N4NKCC-N
0 to 400℃				T4MI-N4NJ4C-N
600 to 1600℃				T4MI-N4NRFC-N
-99.9 to 199.9℃	100-240VAC	—	—	T4MI-N4NP0C-N
0 to 400℃				T4MI-N4NP4C-N
0 to 1200℃	100-240VAC	—	—	T4YI-N4NKCC-N
0 to 500℃				T4YI-N4NJ5C-N
-99.9 to 199.9℃	100-240VAC	—	—	T4YI-N4NP0C-N
0 to 400℃				T4YI-N4NP4C-N
0 to 1200℃	100-240VAC	—	—	T4WI-N4NKCC-N
0 to 500℃				T4WI-N4NJ5C-N
-99.9 to 199.9℃	100-240VAC	—	—	T4WI-N4NP0C-N
0 to 400℃				T4WI-N4NP4C-N

Temperature Controllers

High Performance, General-Purpose · Single Display · Dual Display PID Control Temperature Controller / Board Type, Dual PID Control Temperature Controller / Dual PID Control Temperature Controller / Thumwheel Switch Setting Type Temperature Controller / Temperature Indicator / Temperature · Humidity Sensor / USB 2-CH Temperature Data Logger

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℃ -40.0 to 212℉
				Thermistor(NTC)※1: 5kΩ	500ms	-40.0 to 99.9℃ -40.0 to 212℉
			ON/OFF control	RTD※2: DPt100Ω	500ms	-99.9 to 99.9℃ -148 to 212℉
				RTD※2: DPt100Ω	500ms	-99.9 to 99.9℃ -148 to 212℉

※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℃	100-240VAC	—	—	T3HI-N4NKAC-N
0 to 400℃				T3HI-N4NJ4C-N
-99 to 199℃	100-240VAC	—	—	T3HI-N4NP0C-N
0 to 400℃				T3HI-N4NP4C-N
0 to 800℃	100-240VAC	—	—	T4LI-N4NK8C-N
0 to 1200℃				T4LI-N4NKCC-N
0 to 400℃				T4LI-N4NJ4C-N
600 to 1600℃				T4LI-N4NRFC-N
-99.9 to 199.9℃	100-240VAC	—	—	T4LI-N4NP0C-N
0 to 400℃				T4LI-N4NP4C-N

Display Range	Power Supply	Protection Structure	Approval	Model
0 to 1200℃	110/220VAC	—	—	T4WM-N3NKCC
0 to 500℃				T4WM-N3NJ5C
-99.9 to 199.9℃	110/220VAC	—	—	T4WM-N3NP0C
0 to 399℃				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)	c UL 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)	c UL 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)	c UL 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℃	—	DPt100Ω resistance value	—
	Non-display	-19.9 to 60.0℃	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℃	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℃	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℃	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℃	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	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	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	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	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	THD-DD1-T
	200m				THD-DD2-T

SSRs / Power Controllers

Series	Control Phase	Heatsink	Mounting	Input Voltage	Load Voltage	Dielectric Strength
Single-Phase, Detachable Heatsink Type SSR **SR1 Series**  W44×H58×L28.3mm	1-phase	—	Panel	4-30VDC	24-240VAC	4,000VAC
					48-480VAC	4,000VAC
				90-240VAC	24-240VAC	4,000VAC
					48-480VAC	4,000VAC
Single-Phase, Slim, Detachable Heatsink Type SSR **SRC1 Series**  W22.5×H98×L33.5mm	1-phase	—	Panel	4-30VDC	24-240VAC	4,000VAC
					48-480VAC	4,000VAC
					48-480VAC	4,000VAC
				90-240VAC	24-240VAC	4,000VAC
					48-480VAC	4,000VAC
Single-Phase, Heatsink Integrated Type SSR **SRH1 Series** <Rated load current: 15A/20A>  W22.5×H100×L100mm	1-phase	●	Panel, DIN rail	4-30VDC	24-240VAC	4,000VAC
					48-480VAC	4,000VAC
<Rated load current: 30A/40A>  W45×H100×L100mm					48-480VAC	4,000VAC
				24VAC	24-240VAC	4,000VAC
<Rated load current: 60A>  W110×H100×L100mm					48-480VAC	4,000VAC
				90-240VAC	24-240VAC	4,000VAC

※1. Rated load current capacity is varied by ambient temperature. Refer to “SSR Derating Curve” of Autonics’ total catalogue.

Rated Load Current (□: type)								Function		Ambient Temperature※1	Approval	Model
15: 15A, 20: 20A, 25: 25A, 30: 30A, …. 75: 75A								Zero Cross Turn-On	Random Turn-On			
15A	20A	25A	30A	40A	50A	60A	75A					
●	—	●	—	●	●	—	●	●	—	-30 to 80℃		SR1-12□
●	—	●	—	●	●	—	●	●	—	-30 to 80℃		SR1-14□
●	—	●	—	●	●	—	●	—	●			SR1-14□R
●	—	●	—	●	●	—	●	●	—	-30 to 80℃		SR1-42□
●	—	●	—	●	●	—	●	●	—	-30 to 80℃		SR1-44□
●	●	—	●	—	—	—	—	●	—	-30 to 80℃		SRC1-12□
—	●	—	—	—	—	—	—	●	—	-30 to 80℃		SRC1-1420
—	●	—	—	—	—	—	—	—	●	-30 to 80℃		SRC1-1420R
●	●	—	●	—	—	—	—	●	—	-30 to 80℃		SRC1-42□
—	●	—	—	—	—	—	—	●	—	-30 to 80℃		SRC1-4420
●	●	—	●	●	—	●	—	●	—	-30 to 80℃		SRH1-12□
—	●	—	●	—	—	●	—	●	—	-30 to 80℃		SRH1-14□
—	●	—	●	—	—	●	—	—	●	-30 to 80℃		SRH1-14□R
●	●	—	●	●	—	●	—	●	—	-30 to 80℃		SRH1-22□
—	●	—	●	—	—	●	—	●	—	-30 to 80℃		SRH1-24□
●	●	—	●	●	—	●	—	●	—	-30 to 80℃		SRH1-42□

SSRs / Power Controllers

Series	Control Phase	Heatsink	Mounting	Input Current	Load Voltage	Dielectric Strength
Single-Phase, Analog Input Type SSR **SRPH1 Series** <Rated load current: 20A/30A>  W45×H100×L100mm <Rated load current: 60A>  W110×H100×L100mm	1-phase	●	Panel, DIN rail	Analog input 4-20mA	100-240VAC	4,000VAC
					100-240VAC	4,000VAC
					100-240VAC	4,000VAC
					200-480VAC	4,000VAC
					200-480VAC	4,000VAC
					200-480VAC	4,000VAC

※1. Operation mode is selectable by jumper pin of the unit and factory default is phase control (power equality division method).
※2. Rated load current capacity is varied by ambient temperature. Refer to “SSR Derating Curve” of Autonics’ total catalogue.

Series	Control Phase	Socket	Input Voltage	Load Voltage	Dielectric Strength
Single-Phase, Socket Type SSR **SRS1-A Series** <Rated load current: 1A/2A/3A>  W13×H29×L28mm <Rated load current: 5A>  W13×H29×L38mm	1-phase	Autonics Socket SK-G05	4-24VDC	24-240VAC	2,500VAC
				5-100VDC	2,500VAC
				5-200VDC	2,500VAC
				5-240VAC/5-200VDC	2,500VAC
Single-Phase, Socket Type SSR **SRS1-B Series**  W21×H27×L34.5mm	1-phase	General LY2 socket	4-30VDC	90-240VAC	2,500VAC
				90-240VAC	2,500VAC

※1. Rated load current capacity is varied by ambient temperature. Refer to “SSR Derating Curve” of Autonics’ total catalogue.

Rated Load Current			Operation Mode※1	Ambient Temperature※2	Approval	Model
20A	30A	60A				
●	—	—	Cycle control (variable cycle/fixed cycle) Phase control (phase equality division method/power equality division method)	-20 to 70℃		SRPH1-A220
—	●	—	Cycle control (variable cycle/fixed cycle) Phase control (phase equality division method/power equality division method)	-20 to 70℃		SRPH1-A230
—	—	●	Cycle control (variable cycle/fixed cycle) Phase control (phase equality division method/power equality division method)	-20 to 70℃		SRPH1-A260
●	—	—	Cycle control (variable cycle/fixed cycle) Phase control (phase equality division method/power equality division method)	-20 to 70℃		SRPH1-A420
—	●	—	Cycle control (variable cycle/fixed cycle) Phase control (phase equality division method/power equality division method)	-20 to 70℃		SRPH1-A430
—	—	●	Cycle control (variable cycle/fixed cycle) Phase control (phase equality division method/power equality division method)	-20 to 70℃		SRPH1-A460

Rated Load Current (□: type)				Function		Number Of Output Circuits	Ambient Temperature※1	Approval	Model
01: 1A, 02: 2A, 03: 3A, 05: 5A				Zero Cross Turn-On	Random Turn-On				
1A	2A	3A	5A						
—	●	●	●	●	—	1	-20 to 70℃		SRS1-A12□
—	●	●	●	—	●	1	-20 to 70℃		SRS1-A12□R
●	●	—	—	—	—	1	-20 to 70℃		SRS1-A1D1□
●	—	—	—	—	—	1	-20 to 70℃		SRS1-A1D201
●	—	—	—	—	—	1	-20 to 70℃		SRS1-A1X201
—	●	—	—	●	—	2	-20 to 80℃		SRS1-B1202-2
—	●	—	—	—	●				SRS1-B1202R-2
—	—	●	●	●	—	1	-20 to 80℃		SRS1-B12□-1
—	—	●	●	—	●				SRS1-B12□R-1

SSRs / Power Controllers

Series	Control Phase	Control Method	Power Supply	Applied Load
Single-Phase, Power Controller **SPC1 Series**  W94.6×H124.8×L92mm	1-phase	Phase control Cycle control (zero cross turn-on) - Control period: 0.5 sec, 2 sec, 10 sec ON/OFF control (zero cross turn-on)	220VAC	Resistance load (min. load: over 5% of rated current)

Load Voltage	Rated Load Current	Control Input	Function	Ambient Temperature	Approval	Model
220VAC	35A	DC4-20mA, 1-5VDC, External 24VDC, External VR (1kΩ), External contact (ON/OFF)	Output limit (0 to 100%), Soft Start (0 to 50 sec), Output display, 50/60Hz automatic recognition	0 to 50℃	—	SPC1-35
	50A	DC4-20mA, 1-5VDC, External 24VDC, External VR (1kΩ), External contact (ON/OFF)	Output limit (0 to 100%), Soft Start (0 to 50 sec), Output display, 50/60Hz automatic recognition	0 to 50℃	—	SPC1-50

Counters

Compact, LCD Display Counter (Indicator Only) / Programmable Counter / Up · Down Counter (Indicator Only) / Thumbwheel Switch Setting Type 8-Pin Plug Counter / Thumbwheel Switch Setting Type Up · Down Measure Counter

Series	Display Method	Operation Method	Terminal	Power Supply	External Power Supply	Input Method	
						Signal	Reset
Compact, LCD Display Counter (Indicator Only) **LA8N Series**  W48×H24×L54mm	8-digit 7-segment LCD	Count up	Terminal block	Built-in battery (over 7 years)	—	No-voltage input (NPN)	No-voltage input (NPN)
		Count up, Count down, Count up/down					
		Count up	Terminal block	Built-in battery (over 7 years)	—	Voltage input (PNP)	Voltage input (PNP)
		Count up, Count down, Count up/down					
		Count up	Terminal block	Built-in battery (over 7 years)	—	Free voltage input	No-voltage input (NPN)

Series	Display Method	Operation Method	Terminal	Power Supply	External Power Supply	Signal Input Method	Max. Counting Speed [cps]
Programmable Counter (Timer) **CT4S Series**  W48×H48×L90mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	24VAC, 24-48VDC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k
				100-240VAC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k
Programmable Counter (Timer) **CT6S Series**  W48×H48×L90mm	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	24VAC, 24-48VDC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k
				100-240VAC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k
Programmable Counter (Timer) **CT6Y Series**  W72×H36×L77mm	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	24VAC, 24-48VDC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k
				100-240VAC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k
Programmable Counter (Timer) **CT6M Series**  W72×H72×L85mm	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	24VAC, 24-48VDC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k
				100-240VAC	12VDC Max. 100mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 1k, 5k, 10k

Max. Counting Speed [cps]	Min. Signal Width	Control Output	Backlight	Protection Structure	Approval	Model
1, 30, 1k	20ms	Indicator	●	IP66 (front panel)		LA8N-BN-L
			—			LA8N-BN
1, 30, 1k	20ms	Indicator	●	IP66 (front panel)		LA8N-BV-L
			—			LA8N-BV
20	20ms	Indicator	—	IP66 (front panel)		LA8N-BF

Min. Signal Width	Control Output			Communication Output	Protection Structure	Approval	Model
	Type	Relay	NPN Open Collector				
1ms/20ms	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT4S-2P2
			—	RS485			CT4S-2P2T
	1-stage preset	SPDT (1c): 1	1	—	IP65 (front panel)		CT4S-1P2
			—	RS485			CT4S-1P2T
1ms/20ms	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT4S-2P4
			—	RS485			CT4S-2P4T
	1-stage preset	SPDT (1c): 1	1	—	IP65 (front panel)		CT4S-1P4
			—	RS485			CT4S-1P4T
1ms/20ms	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT6S-2P2
			—	RS485			CT6S-2P2T
	1-stage preset	SPDT (1c): 1	1	—	IP65 (front panel)		CT6S-1P2
			—	RS485			CT6S-1P2T
	Indicator	—	—	—	IP65 (front panel)		CT6S-I2
				RS485			CT6S-I2T
1ms/20ms	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT6S-2P4
			—	RS485			CT6S-2P4T
	1-stage preset	SPDT (1c): 1	1	—	IP65 (front panel)		CT6S-1P4
			—	RS485			CT6S-1P4T
	Indicator	—	—	—	IP65 (front panel)		CT6S-I4
				RS485			CT6S-I4T
1ms/20ms	2-stage preset	SPST (1a): 1, SPDT (1c): 1	1	—	IP65 (front panel)		CT6Y-2P2
		SPST (1a): 2	—	RS485			CT6Y-2P2T
	1-stage preset	SPDT (1c): 1	1	—	IP65 (front panel)		CT6Y-1P2
				RS485			CT6Y-1P2T
	Indicator	—	—	—	IP65 (front panel)		CT6Y-I2
				RS485			CT6Y-I2T
1ms/20ms	2-stage preset	SPST (1a): 1, SPDT (1c): 1	1	—	IP65 (front panel)		CT6Y-2P4
		SPST (1a): 2	—	RS485			CT6Y-2P4T
	1-stage preset	SPDT (1c): 1	1	—	IP65 (front panel)		CT6Y-1P4
				RS485			CT6Y-1P4T
	Indicator	—	—	—	IP65 (front panel)		CT6Y-I4
				RS485			CT6Y-I4T
1ms/20ms	2-stage preset	SPST (1a): 1, SPDT (1c): 1	3	—	IP65 (front panel)		CT6M-2P2
			2	RS485			CT6M-2P2T
	1-stage preset	SPDT (1c): 1	2	—	IP65 (front panel)		CT6M-1P2
				RS485			CT6M-1P2T
	Indicator	—	—	—	IP65 (front panel)		CT6M-I2
				RS485			CT6M-I2T
1ms/20ms	2-stage preset	SPST (1a): 1, SPDT (1c): 1	3	—	IP65 (front panel)		CT6M-2P4
			2	RS485			CT6M-2P4T
	1-stage preset	SPDT (1c): 1	2	—	IP65 (front panel)		CT6M-1P4
				RS485			CT6M-1P4T
	Indicator	—	—	—	IP65 (front panel)		CT6M-I4
				RS485			CT6M-I4T

Counters

Compact, LCD Display Counter (Indicator Only) / Programmable Counter / Up · Down Counter (Indicator Only) / Thumbwheel Switch Setting Type 8-Pin Plug Counter / Thumbwheel Switch Setting Type Up · Down Measure Counter

Series	Display Method	Operation Method	Terminal	Power Supply	External Power Supply	Signal Input Method	Max. Counting Speed [cps]
Up·Down Counter (Indicator Only) (Timer) **FXY Series**  W72×H36×L93mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC	12VDC Max. 50mA	No-voltage input (NPN)	1, 30, 2k, 5k
	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC	12VDC Max. 50mA	No-voltage input (NPN)	1, 30, 2k, 5k
Compact, Thumbwheel Switch Setting Type Up·Down Counter (Timer) **FXS Series**  W48×H48×L91mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
	5digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
Thumbwheel Switch Setting Type Up·Down Counter (Timer) **FX Series**  W72×H72×L112.3mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC			1, 30, 2k, 5k
				100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC			1, 30, 2k, 5k
				100-240VAC			1, 30, 2k, 5k
	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC			1, 30, 2k, 5k
				100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC			1, 30, 2k, 5k
Thumbwheel Switch Setting Type Up·Down Counter (Timer) **FXH Series**  W48×H96×L100mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
Thumbwheel Switch Setting Type Up·Down Counter (Timer) **FXL Series**  W144×H72×L112mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k

Min. Signal Width	Control Output			Protection Structure	Approval	Model
	Type	Relay	NPN Open Collector			
20ms	Indicator	—	—	—	c UL us	FX4Y-I
20ms	Indicator	—	—	—	c UL us	FX4Y-I
20ms	Indicator	—	—	—	c UL us	FX6Y-I
20ms	Indicator	—	—	—	c UL us	FX6Y-I
20ms	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX4S
20ms	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX4S
20ms	Indicator	—	—	—	c UL us	FX5S-I
20ms	Indicator	—	—	—	c UL us	FX5S-I
20ms	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX4-2P
20ms	2-stage preset	SPDT (1c): 2	2	—	—	FX4-2P
20ms	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX4
20ms	1-stage preset	SPDT (1c): 1	1	—	—	FX4
20ms	Indicator	—	—	—	c UL us	FX4-I
20ms	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX6-2P
20ms	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX6
20ms	1-stage preset	SPDT (1c): 1	1	—	—	FX6
20ms	Indicator	—	—	—	c UL us	FX6-I
20ms	Indicator	—	—	—	—	FX6-I
20ms	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX4H-2P
	1-stage preset	SPDT (1c): 1	1	—		FX4H
	Indicator	—	—	—		FX4H-I
20ms	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX4L-2P
20ms	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX6L-2P
	Indicator	—	—	—	c UL us	FX6L-I

Counters

Compact, LCD Display Counter (Indicator Only) / Programmable Counter / Up · Down Counter (Indicator Only) / Thumbwheel Switch Setting Type 8-Pin Plug Counter / Thumbwheel Switch Setting Type Up · Down Measure Counter

Series	Display Method	Operation Method	Terminal	Power Supply	External Power Supply	Signal Input Method	Max. Counting Speed [cps]
Thumbwheel Switch Setting Type 8-Pin Plug Counter **FS Series**  W48×H48×L85mm	4-digit 7-segment LED	Count up, Count down	8-pin plug	100-240VAC	12VDC Max. 50mA	No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC	12VDC Max. 50mA	No-voltage input (NPN)	1, 30, 2k, 5k
	5digit 7-segment LED	Count up, Count down	8-pin plug	100-240VAC	12VDC Max. 50mA	No-voltage input (NPN)	1, 30, 2k, 5k
※Sold separately: 8-pin socket (PG-08, PS-08(N))							
Thumbwheel Switch Setting Type Up·Down Counter **F Series**  W72×H72×L112mm	8-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
Thumbwheel Switch Setting Type Up·Down Counter **L Series**  W144×H72×L112mm	8-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
Thumbwheel Switch Setting Type Up·Down Measure Counter **FM Series**  W72×H72×L112mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				12-24VAC, 12-24VDC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
				100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
Thumbwheel Switch Setting Type Up·Down Measure Counter **LM Series**  W144×H72×L112mm	4-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k
	6-digit 7-segment LED	Count up, Count down, Count up/down	Terminal block	100-240VAC	12VDC Max. 50mA	Voltage input (PNP), No-voltage input (NPN)	1, 30, 2k, 5k

Min. Signal Width	Control Output			Protection Structure	Approval	Model
	Type	Relay	NPN Open Collector			
20ms	1-stage preset	SPST (1a): 1	—	—	—	FS4A
20ms	1-stage preset	SPST (1a): 1	—	—	—	FS4A
20ms	Indicator	—	—	—	—	FS5B
20ms	1-stage preset	SPDT (1c): 1	1	—	—	F8A
	Indicator	—	—	—	—	F8B
20ms	1-stage preset	SPDT (1c): 1	1	—	—	L8A
20ms	1-stage preset	SPDT (1c): 1	1	—	—	L8A
20ms	Indicator	—	—	—	—	L8B
20ms	2-stage preset	SPST (1a): 2	2	—	—	F4AM-2P
20ms	1-stage preset	SPDT (1c): 1	1	—	—	F4AM
20ms	1-stage preset	SPDT (1c): 1	1	—	—	F4AM
20ms	Indicator	—	—	—	—	F4BM
20ms	2-stage preset	SPST (1a): 2	2	—	—	F6AM-2P
20ms	1-stage preset	SPDT (1c): 1	1	—	—	F6AM
	Indicator	—	—	—	—	F6BM
20ms	2-stage preset	SPDT (1c): 2	2	—	—	L4AM-2P
	Indicator	—	—	—	—	L4BM
20ms	2-stage preset	SPDT (1c): 2	2	—	—	L6AM-2P
	Indicator	—	—	—	—	L6BM

Timers

Compact, LCD Display Timer (Indicator Only) / Programmable Timer / Timer (Indicator Only) /
Thumbwheel Switch Setting Type 8-Pin Plug Up · Down Timer / Thumbwheel Switch Setting Type LCD Display Timer / LCD Display Timer /
Multi Function · ⅄-△ · Power OFF Delay · General-Purpose Analog Timer

Series	Display Method	Operation Method	Output Operation	Time Operation	Terminal	Power Supply	External Power Supply	Memory Protection
Compact LCD Display Timer (Indicator Only) **LE8N Series**  W48×H24×L54mm	8-digit 7-segment LCD	Count up	—	POWER ON START	Terminal block	Built-in battery (over 10 years)	—	—

Series	Display Method	Operation Method	Output Operation	Time Operation	Terminal	Power Supply	External Power Supply	Memory Protection
Programmable Timer (Counter) **CT4S Series**  W48×H48×L90mm	4-digit 7-segment LED	Count up, Count down	SIGNAL ON DELAY, POWER ON DELAY, FLICKER, INTERVAL, SIGNAL OFF DELAY, ON-OFF DELAY, INTEGRATION TIME	POWER ON START, SIGNAL ON START	Terminal block	24VAC, 24-48VDC	Max. 12VDC 100mA	Approx. 10 years
						100-240VAC	Max. 12VDC 100mA	Approx. 10 years
Programmable Timer (Counter) **CT6S Series**  W48×H48×L90mm	6-digit 7-segment LED	Count up, Count down	SIGNAL ON DELAY, POWER ON DELAY, FLICKER, INTERVAL, SIGNAL OFF DELAY, ON-OFF DELAY, INTEGRATION TIME	POWER ON START, SIGNAL ON START	Terminal block	24VAC, 24-48VDC	Max. 12VDC 100mA	Approx. 10 years
						100-240VAC	Max. 12VDC 100mA	Approx. 10 years
Programmable Timer (Counter) **CT6Y Series**  W72×H36×L77mm	6-digit 7-segment LED	Count up, Count down	SIGNAL ON DELAY, POWER ON DELAY, FLICKER, INTERVAL, SIGNAL OFF DELAY, ON-OFF DELAY, INTEGRATION TIME	POWER ON START, SIGNAL ON START	Terminal block	24VAC, 24-48VDC	Max. 12VDC 100mA	Approx. 10 years
						100-240VAC	Max. 12VDC 100mA	Approx. 10 years
Programmable Timer (Counter) **CT6M Series**  W72×H72×L85mm	6-digit 7-segment LED	Count up, Count down	SIGNAL ON DELAY, POWER ON DELAY, FLICKER, INTERVAL, SIGNAL OFF DELAY, ON-OFF DELAY, INTEGRATION TIME	POWER ON START, SIGNAL ON START	Terminal block	24VAC, 24-48VDC	Max. 12VDC 100mA	Approx. 10 years
						100-240VAC	Max. 12VDC 100mA	Approx. 10 years

Setting Range	Input Method		Control Output	Backlight	Protection Structure	Approval	Model
	Signal	Reset					
0.01 sec to 9999 hour 59 min 59 sec, 0.1 min to 99999 hour 59.9 min, 1 min to 999999 hour 59 min, 1 min to 9999 day 23 hour 59 min, 0.1 hour to 9999 day 23.9 hour, 1 sec to 99999999 sec, 0.1 min to 9999 hour 59.9 min, 1 min to 99999 hour 59 min, 0.1 hour to 999999.9 hour	Free voltage input	No-voltage input (NPN)	Indicator	—	IP66 (front panel)		LE8N-BF
	No-voltage input (NPN)	No-voltage input (NPN)	Indicator	●	IP66 (front panel)		LE8N-BN-L
				—			LE8N-BN
	Voltage input (PNP)	Voltage input (PNP)	Indicator	●	IP66 (front panel)		LE8N-BV-L
				—			LE8N-BV

Setting Range	Signal Input Method	Control Output			Comm. Output	Protection Structure	Approval	Model
		Type	Relay	NPN Open Collector				
0.001 sec to 9.999 sec, 0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 9999 min, 1 min to 99 hour 59 min, 1 hour to 9999 hour	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT4S-2P2
				—	RS485			CT4S-2P2T
		1-stage preset	SPDT (1c): 1	1	—			CT4S-1P2
				—	RS485			CT4S-1P2T
	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT4S-2P4
				—	RS485			CT4S-2P4T
		1-stage preset	SPDT (1c): 1	1	—			CT4S-1P4
				—	RS485			CT4S-1P4T
0.001 sec to 999.999 sec, 0.01 sec to 9999.99 sec, 0.1 sec to 99999.9 sec, 1 sec to 999999 sec, 0.01 sec to 99 min 59.99 sec, 0.1 sec to 999 min 59.9 sec, 1 sec to 9999 min 59 sec, 0.1 min to 99999.9 min, 1 min to 999999 min, 1 min to 99 hour 59 min 59 sec, 1 min to 9999 hour 59 min, 0.1 hour to 99999.9 hour	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT6S-2P2
				—	RS485			CT6S-2P2T
		1-stage preset	SPDT (1c): 1	1	—			CT6S-1P2
				—	RS485			CT6S-1P2T
		Indicator	—	—	—			CT6S-I2
					RS485			CT6S-I2T
	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 2	1	—	IP65 (front panel)		CT6S-2P4
				—	RS485			CT6S-2P4T
		1-stage preset	SPDT (1c): 1	1	—			CT6S-1P4
				—	RS485			CT6S-1P4T
		Indicator	—	—	—			CT6S-I4
					RS485			CT6S-I4T
0.001 sec to 999.999 sec, 0.01 sec to 9999.99 sec, 0.1 sec to 99999.9 sec, 1 sec to 999999 sec, 0.01 sec to 99 min 59.99 sec, 0.1 sec to 999 min 59.9 sec, 1 sec to 9999 min 59 sec, 0.1 min to 99999.9 min, 1 min to 999999 min, 1 min to 99 hour 59 min 59 sec, 1 min to 9999 hour 59 min, 0.1 hour to 99999.9 hour	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 1, SPDT (1c): 1	1	—	IP65 (front panel)		CT6Y-2P2
			SPST (1a): 2	—	RS485			CT6Y-2P2T
		1-stage preset	SPDT (1c): 1	1	—			CT6Y-1P2
					RS485			CT6Y-1P2T
		Indicator	—	—	—			CT6Y-I2
					RS485			CT6Y-I2T
	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 1, SPDT (1c): 1	1	—	IP65 (front panel)		CT6Y-2P4
			SPST (1a): 2	—	RS485			CT6Y-2P4T
		1-stage preset	SPDT (1c): 1	1	—			CT6Y-1P4
					RS485			CT6Y-1P4T
		Indicator	—	—	—			CT6Y-I4
					RS485			CT6Y-I4T
0.001 sec to 999.999 sec, 0.01 sec to 9999.99 sec, 0.1 sec to 99999.9 sec, 1 sec to 999999 sec, 0.01 sec to 99 min 59.99 sec, 0.1 sec to 999 min 59.9 sec, 1 sec to 9999 min 59 sec, 0.1 min to 99999.9 min, 1 min to 999999 min, 1 min to 99 hour 59 min 59 sec, 1 min to 9999 hour 59 min, 0.1 hour to 99999.9 hour	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 1, SPDT (1c): 1	3	—	IP65 (front panel)		CT6M-2P2
				2	RS485			CT6M-2P2T
		1-stage preset	SPDT (1c): 1	2	—			CT6M-1P2
					RS485			CT6M-1P2T
		Indicator	—	—	—			CT6M-I2
					RS485			CT6M-I2T
	Voltage input (PNP), No-voltage input (NPN)	2-stage preset	SPST (1a): 1, SPDT (1c): 1	3	—	IP65 (front panel)		CT6M-2P4
				2	RS485			CT6M-2P4T
		1-stage preset	SPDT (1c): 1	2	—			CT6M-1P4
					RS485			CT6M-1P4T
		Indicator	—	—	—			CT6M-I4
					RS485			CT6M-I4T

Timers

Compact, LCD Display Timer (Indicator Only) / Programmable Timer / Timer (Indicator Only) /
Thumbwheel Switch Setting Type 8-Pin Plug Up · Down Timer / Thumbwheel Switch Setting Type LCD Display Timer / LCD Display Timer /
Multi Function · ⅄-△ · Power OFF Delay · General-Purpose Analog Timer

Series	Display Method	Operation Method	Output Operation	Time Operation	Terminal	Power Supply	External Power Supply	Memory Protection
Timer (Indicator Only) (Counter) **FXY Series**  W72×H36×L93mm	4-digit 7-segment LED	Count up, Count down	—	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years
	6-digit 7-segment LED	Count up, Count down	—	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years
Compact, Thumbwheel Switch Setting Type Up·Down Timer (Counter) **FXS Series**  W48×H48×L91mm	4-digit 7-segment LED	Count up, Count down	POWER ON DELAY, FLICKER	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years
	5-digit 7-segment LED	Count up, Count down	—	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years
Thumbwheel Switch Setting Type Up·Down Timer (Counter) **FX Series**  W72×H72×L112.3mm	4-digit 7-segment LED	Count up, Count down	POWER ON DELAY, FLICKER	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years
						100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years
			—	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
	6-digit 7-segment LED	Count up, Count down	POWER ON DELAY, FLICKER	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
						100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years
			—	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
						12-24VAC, 12-24VDC	12VDC Max. 50mA	Approx. 10 years

Setting Range	Signal Input Method	Control Output			Protection Structure	Approval	Model
		Type	Relay	NPN Open Collector			
0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 99 hour 59 min, 0.1 hour to 999.9 hour, 1 hour to 9999 hour	No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX4Y-I
	No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX4Y-I
0.1 sec to 99999.9 sec, 1 sec to 999999 sec, 0.01 sec to 99 min 59.99 sec, 0.1 sec to 999 min 59.9 sec, 0.1 sec to 99999.9 min, 1 sec to 99 hour 59 min 59 sec, 1 min to 9999 hour 59 min, 0.1 hour to 99999.9 hour	No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX6Y-I
	No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX6Y-I
0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 99 hour 59 min, 0.1 hour to 999.9 hour, 1 hour to 9999 hour	Voltage input (PNP) No-voltage input (NPN)	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX4S
	Voltage input (PNP) No-voltage input (NPN)	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX4S
0.1 sec to 9999.9 sec, 1 sec to 99999 sec, 0.01 sec to 9 min 59.99 sec, 0.1 sec to 99 min 59.9 sec, 0.1 min to 9999.9 min, 1 sec to 9 hour 59 min 59 sec, 1 min 999 hour 59 min, 0.1 hour to 9999.9 hour	Voltage input (PNP) No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX5S-I
	Voltage input (PNP) No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX5S-I
0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 99 hour 59 min, 0.1 hour to 999.9 hour, 1 hour to 9999 hour	Voltage input (PNP) No-voltage input (NPN)	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX4-2P
	Voltage input (PNP) No-voltage input (NPN)	2-stage preset	SPDT (1c): 2	2	—	—	FX4-2P
	Voltage input (PNP) No-voltage input (NPN)	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX4
	Voltage input (PNP) No-voltage input (NPN)	1-stage preset	SPDT (1c): 1	1	—	—	FX4
	Voltage input (PNP) No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX4-I
0.1 sec to 99999.9 sec, 1 sec to 999999 sec, 0.01 sec to 99 min 59.99 sec, 0.1 sec to 999 min 59.9 sec, 0.1 sec to 99999.9 min, 1 sec to 99 hour 59 min 59 sec, 1 min to 9999 hour 59 min, 0.1 hour to 99999.9 hour	Voltage input (PNP) No-voltage input (NPN)	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX6-2P
	Voltage input (PNP) No-voltage input (NPN)	1-stage preset	SPDT (1c): 1	1	—	c UL us	FX6
	Voltage input (PNP) No-voltage input (NPN)	1-stage preset	SPDT (1c): 1	1	—	—	FX6
	Voltage input (PNP) No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX6-I
	Voltage input (PNP) No-voltage input (NPN)	Indicator	—	—	—	—	FX6-I

Timers

Compact, LCD Display Timer (Indicator Only) / Programmable Timer / Timer (Indicator Only) /
Thumbwheel Switch Setting Type 8-Pin Plug Up · Down Timer / Thumbwheel Switch Setting Type LCD Display Timer / LCD Display Timer /
Multi Function · ⅄-△ · Power OFF Delay · General-Purpose Analog Timer

Series	Display Method	Operation Method	Output Operation	Time Operation	Terminal	Power Supply	External Power Supply	Memory Protection
Thumbwheel Switch Setting Type Up·Down Timer (Counter) FXH Series  W48×H96×L100mm	4-digit 7-segment LED	Count up, Count down	POWER ON DELAY, FLICKER	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
			—	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
Thumbwheel Switch Setting Type Up·Down Timer (Counter) FXL Series  W144×H72×L112mm	4-digit 7-segment LED	Count up, Count down	POWER ON DELAY, FLICKER	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
	6-digit 7-segment LED	Count up, Count down	POWER ON DELAY, FLICKER	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
			—	POWER ON START	Terminal block	100-240VAC	12VDC Max. 50mA	Approx. 10 years
Thumbwheel Switch Setting Type 8-Pin Plug Timer FSE Series  W48×H48×L85mm	4-digit 7-segment LED	Count up, Count down	POWER ON DELAY, FLICKER	POWER ON START	8-pin plug	100-240VAC	—	Approx. 10 years
						12-24VAC, 12-24VDC	—	Approx. 10 years
	5-digit 7-segment LED	Count up, Count down	—	POWER ON START	8-pin plug	100-240VAC	—	Approx. 10 years
						12-24VAC, 12-24VDC	—	Approx. 10 years

※Sold separately: 8-pin socket (PG-08, PS-08(N))

Series	Display Method	Operation Method	Output Operation	Time Operation	Terminal	Power Supply	External Power Supply	Memory Protection
Thumbwheel Switch Setting Type LCD Display Timer LE3S Series  W48×H48×L67mm	3-digit 7-segment LCD	Count up, Count down	POWER ON DELAY	POWER ON START	8-pin plug	24-240VAC, 24-240VDC	—	—
			ON DELAY, INTERVAL DELAY, FLICKER, ONE-SHOT OUT FLICKER, ON-OFF DELAY, OFF DELAY, INTEGRATION TIME	SIGNAL ON START	8-pin plug	24-240VAC, 24-240VDC	—	—

※Sold separately: 8-pin socket (PG-08, PS-08(N))

Setting Range	Signal Input Method	Control Output			Protection Structure	Approval	Model
		Type	Relay	NPN Open Collector			
0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 99 hour 59 min, 0.1 hour to 999.9 hour, 1 hour to 9999 hour	Voltage input (PNP) No-voltage input (NPN)	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX4H-2P
		1-stage preset	SPDT (1c): 1	1	—	c UL us	FX4H
	Voltage input (PNP) No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX4H-I
0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 99 hour 59 min, 0.1 hour to 999.9 hour, 1 hour to 9999 hour	Voltage input (PNP) No-voltage input (NPN)	2-stage preset	SPDT (1c): 2	2	—	c UL us	FX4L-2P
0.1 sec to 99999.9 sec, 1 sec to 999999 sec, 0.01 sec to 99 min 59.99 sec, 0.1 sec to 999 min 59.9 sec, 0.1 sec to 99999.9 min, 1 sec to 99 hour 59 min 59 sec, 1 min to 9999 hour 59 min, 0.1 hour to 99999.9 hour	Voltage input (PNP) No-voltage input (NPN)	2-stage preset	SPDT (1c): 2	2	—	—	FX6L-2P
	Voltage input (PNP) No-voltage input (NPN)	Indicator	—	—	—	c UL us	FX6L-I
0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 99 hour 59 min, 0.1 hour to 999.9 hour, 1 hour to 9999 hour	No-voltage input (NPN)	1-stage preset	Time-limit SPDT (1c): 1	—	—	—	FS4E
	No-voltage input (NPN)	1-stage preset	Time-limit SPDT (1c): 1	—	—	—	FS4E
0.1 sec to 9999.9 sec, 1 sec to 99999 sec, 0.01 sec to 9 min 59.99 sec, 0.1 sec to 99 min 59.9 sec, 0.1 min to 9999.9 min, 1 sec to 9 hour 59 min 59 sec, 1 min to 999 hour 59 min, 0.1 hour to 9999.9 hour	No-voltage input (NPN)	Indicator	—	—	—	—	FS5EI
	No-voltage input (NPN)	Indicator	—	—	—	—	FS5EI

Setting Range	Signal Input Method	Control Output		Backlight	Protection Structure	Approval	Model
		Relay	NPN Open Collector				
0.01 sec to 9.99 sec, 0.1 sec to 99.9 sec, 1 sec to 999 sec, 0.1 min to 99.9 min, 1 min to 999 min, 0.1 hour to 99.9 hour, 1 hour to 999 hour, 10 hour to 9990 hour, 0 min 01 sec to 9 min 59 sec, 0 hour 01 min to 9 hour 59 min	—	Time-limit SPDT (1c): 2	—	—	—	CE c UL us	LE3SA
		Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	CE c UL us	LE3SB
	No-voltage input (NPN)	Time-limit SPDT (1c): 1	—	—	—	CE c UL us	LE3S

Timers

Compact, LCD Display Timer (Indicator Only) / Programmable Timer / Timer (Indicator Only) /
Thumbwheel Switch Setting Type 8-Pin Plug Up · Down Timer / Thumbwheel Switch Setting Type LCD Display Timer / LCD Display Timer /
Multi Function · ⅄-△ · Power OFF Delay · General-Purpose Analog Timer

Series	Display Method	Operation Method	Output Operation	Time Operation	Terminal	Power Supply	External Power Supply	Memory Protection
LCD Display Timer **LE4S Series**  W48×H48×L70mm	4-digit 7-segment LCD	Count up, Count down	ON DELAY, INTERVAL, FLICKER, STAR-DELTA, TWIN	POWER ON START	8-pin plug	24-240VAC, 24-240VDC	—	—
			ON DELAY, INTERVAL, FLICKER, ON-OFF DELAY, OFF DELAY	SIGNAL ON START	8-pin plug	24-240VAC, 24-240VDC	—	—

※Sold separately: 8-pin socket (PG-08, PS-08(N))

Series	Number Of Setting Steps	Operation Method	Output Operation	Terminal	Power Supply	External Power Supply
Weekly/Yearly Timer **LE7M-2**  W72×H72×L60mm	Weekly 48 steps, Yearly 24 steps	Time setting	ON/OFF, CYCLE, PULSE	Terminal block	100-240VAC	—
Weekly/Yearly Timer **LE365S-41**  W48×H48×L60mm	Weekly 48 steps, Yearly 24 steps	Time setting	ON/OFF, CYCLE, PULSE	Terminal block	100-240VAC	—

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
Miniature Analog Timer **ATM Series**  W21.5×H28×L59.3mm	Time setting	POWER ON DELAY	POWER ON START	14-pin plug	■: Type 2: 24VDC 5: 220VAC 6: 110VAC

※Sold separately: My socket

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
Compact Multi-Function Analog Timer **ATS8 Series**  W38×H42×L83.5mm	Time setting	POWER ON DELAY, FLICKER, INTERVAL	POWER ON START	8-pin plug	12VDC
					24VAC, 24VDC
					100-240VAC, 24-240VDC
					12VDC
					24VAC, 24VDC
					100-240VAC, 24-240VDC

※Sold separately: 8-pin socket (PG-08, PS-08(N), MS-08)

Setting Range	Signal Input Method	Control Output		Backlight	Protection Structure	Approval	Model
		Relay	NPN Open Collector				
0.01 sec to 9.999 sec, 0.01 sec to 99.99 sec, 0.1 sec to 999.9 sec, 1 sec to 9999 sec, 0 min 1 sec to 99 min 59 sec, 0.1 min to 999.9 min, 1 min to 9999 min, 0 hour 1 min to 99 hour 59 min, 0.01 hour to 99.99 hour, 0.1 hour to 999.9 hour, 1 hour to 9999 hour	—	Time-limit SPDT (1c): 2 or Time-limit SPDT (1c): 1 + Instantaneous SPDT (1c): 1 depending on output operation mode	—	●	—	CE c UL us	LE4SA
	No-voltage input (NPN)	Time-limit SPDT (1c): 1	—	●	—	CE c UL us	LE4S

Memory Protection	Signal Input Method	Control Output		Time/Month Deviation	Protection Structure	Approval	Model
		Relay	NPN Open Collector				
Approx. 5 years	—	SPDT (1c): 2	—	±15 sec/month	—	—	LE7M-2
Approx. 5 years	—	SPST (1a): 1	—	±15 sec/month	—	—	LE365S-41

Setting Range	Signal Input Method	Control Output		Protection Structure	Approval	Model
		Relay	NPN Open Collector			
0.1 to 1 sec	—	SPDT (1c): 4	—	—	CE	ATM4-■1S
0.5 to 5 sec	—	SPDT (1c): 4	—	—	CE	ATM4-■5S
1 to 10 sec	—	SPDT (1c): 4	—	—	CE	ATM4-■10S
3 to 30 sec	—	SPDT (1c): 4	—	—	CE	ATM4-■30S
6 to 60 sec	—	SPDT (1c): 4	—	—	CE	ATM4-■60S
0.3 to 3 min	—	SPDT (1c): 4	—	—	CE	ATM4-■3M
0.5 to 5 min	—	SPDT (1c): 4	—	—	CE	ATM4-■5M
1 to 10 min	—	SPDT (1c): 4	—	—	CE	ATM4-■10M
3 to 30 min	—	SPDT (1c): 4	—	—	CE	ATM4-■30M
6 to 60 min	—	SPDT (1c): 4	—	—	CE	ATM4-■60M
0.3 to 3 hour	—	SPDT (1c): 4	—	—	CE	ATM4-■3H

0.1 to 1 sec, 1 to 10 sec, 0.1 to 1 min, 1 to 10 min, 0.1 to 1 hour, 1 to 10 hour	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1+ Time-limit SPDT (1c): 1 depending on output operation mode	—	—	CE c UL us	ATS8-11 ATS8-21 ATS8-41
0.3 to 3 sec, 3 to 30 sec, 0.3 to 3 min, 3 to 30 min, 0.3 to 3 hour, 3 to 30 hour	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1+ Time-limit SPDT (1c): 1 depending on output operation mode	—	—	CE c UL us	ATS8-13 ATS8-23 ATS8-43

Timers

Compact, LCD Display Timer (Indicator Only) / Programmable Timer / Timer (Indicator Only) /
Thumbwheel Switch Setting Type 8-Pin Plug Up · Down Timer / Thumbwheel Switch Setting Type LCD Display Timer / LCD Display Timer /
Multi Function · 人-△ · Power OFF Delay · General-Purpose Analog Timer

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
Compact Multi-Function Analog Timer **ATS11 Series**  W38×H42×L83.5mm	Time setting	SIGNAL ON DELAY, SIGNAL OFF DELAY, SIGNAL ON-OFF DELAY, FLICKER, INTERVAL	SIGNAL ON START	11-pin plug	12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC 12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC 12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC 12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC
※Sold separately: 11-pin socket (PG-11, PS-11(N))					
Compact 人-△ Analog Timer **ATS8SD-4**  W38×H42×L83.5mm	Time setting	STAR-DELTA	POWER ON START	8-pin plug	100-240VAC, 24-240VDC
※Sold separately: 8-pin socket (PG-08, PS-08(N))					
Compact Power OFF Delay Analog Timer **ATS8P Series**  W38×H42×L75.5mm	Time setting	POWER OFF DELAY	POWER OFF START	8-pin plug	24VAC, 24VDC 200-240VAC 100-120VAC 24VAC, 24VDC 200-240VAC 100-120VAC
※Sold separately: 8-pin socket (PG-08, PS-08(N), MS-08)					
Compact Twin Analog Timer **ATS8W Series**  W38×H42×L75.5mm	Time setting	FLICKER	POWER ON START	8-pin plug	12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC 12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC
※Sold separately: 8-pin socket (PG-08, PS-08(N), MS-08)					
Compact Twin Analog Timer **ATS11W Series**  W38×H42×L75.5mm	Time setting	FLICKER	POWER ON START	11-pin plug	12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC 12VDC 24VAC, 24VDC 100-240VAC, 24-240VDC
※Sold separately: 11-pin socket (PG-11, PS-11(N))					

Setting Range	Signal Input Method	Control Output		Protection Structure	Approval	Model
		Relay	NPN Open Collector			
0.1 to 1 sec, 1 to 10 sec, 0.1 to 1 min, 1 to 10 min, 0.1 to 1 hour, 1 to 10 hour	No-voltage input (NPN)	Time-limit SPDT (1c): 2	—	—		ATS11-11D
						ATS11-21D
						ATS11-41D
0.3 to 3 sec, 3 to 30 sec, 0.3 to 3 min, 3 to 30 min, 0.3 to 3 hour, 3 to 30 hour	No-voltage input (NPN)	Time-limit SPDT (1c): 2	—	—		ATS11-13D
						ATS11-23D
						ATS11-43D
0.1 to 1 sec, 1 to 10 sec, 0.1 to 1 min, 1 to 10 min, 0.1 to 1 hour, 1 to 10 hour	No-voltage input (NPN)	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—		ATS11-11E
						ATS11-21E
						ATS11-41E
0.3 to 3 sec, 3 to 30 sec, 0.3 to 3 min, 3 to 30 min, 0.3 to 3 hour, 3 to 30 hour	No-voltage input (NPN)	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—		ATS11-13E
						ATS11-23E
						ATS11-43E
0.5 to 5 sec, 1 to 10 sec, 5 to 50 sec, 10 to 100 sec	—	STAR contact: SPST (1a): 1, DELTA contact: SPST (1a): 1	—	—		ATS8SD-4
0.1 to 1 sec, 1 to 10 sec	—	Time-limit SPDT (1c): 2	—	—		ATS8P-2S
0.1 to 1 sec, 1 to 10 sec	—	Time-limit SPDT (1c): 2	—	—		ATS8P-5S
0.1 to 1 sec, 1 to 10 sec	—	Time-limit SPDT (1c): 2	—	—		ATS8P-6S
0.1 to 1 min, 1 to 10 min	—	Time-limit SPDT (1c): 2	—	—		ATS8P-2M
0.1 to 1 min, 1 to 10 min	—	Time-limit SPDT (1c): 2	—	—		ATS8P-5M
0.1 to 1 min, 1 to 10 min	—	Time-limit SPDT (1c): 2	—	—		ATS8P-6M
0.1 to 1 sec, 1 to 10 sec, 0.1 to 1 min, 1 to 10 min, 0.1 to 1 hour, 1 to 10 hour	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1+ Time-limit SPDT (1c): 1 depending on output operation mode	—	—		ATS8W-11
	—		—	—		ATS8W-21
	—		—	—		ATS8W-41
0.3 to 3 sec, 3 to 30 sec, 0.3 to 3 min, 3 to 30 min, 0.3 to 3 hour, 3 to 30 hour	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1+ Time-limit SPDT (1c): 1 depending on output operation mode	—	—		ATS8W-13
	—		—	—		ATS8W-23
	—		—	—		ATS8W-43
0.1 to 1 sec, 1 to 10 sec, 0.1 to 1 min, 1 to 10 min, 0.1 to 1 hour, 1 to 10 hour	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1+ Time-limit SPDT (1c): 1 depending on output operation mode	—	—		ATS11W-11
	—		—	—		ATS11W-21
	—		—	—		ATS11W-41
0.3 to 3 sec, 3 to 30 sec, 0.3 to 3 min, 3 to 30 min, 0.3 to 3 hour, 3 to 30 hour	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1+ Time-limit SPDT (1c): 1 depending on output operation mode	—	—		ATS11W-13
	—		—	—		ATS11W-23
	—		—	—		ATS11W-43

Timers

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
Multi Function Analog Timer **AT8N Series**  W48×H48×L64.5mm	Time setting	POWER ON DELAY, FLICKER, INTERVAL	POWER ON START	8-pin plug	12VDC
					24VAC, 24V DC
					100-240VAC, 24-240VDC
※Sold separately: 8-pin socket (PG-08, PS-08(N))					
Multi Function Analog Timer **AT11DN Series**  W48×H48×L64.5mm	Time setting	SIGNAL ON DELAY, SIGNAL OFF DELAY, SIGNAL ON-OFF DELAY, FLICKER, INTERVAL	SIGNAL ON START	11-pin plug	12VDC
					24VAC, 24VDC
					100-240VAC, 24-240VDC
※Sold separately: 11-pin socket (PG-11, PS-11(N))					
Multi Function Analog Timer **AT11EN Series**  W48×H48×L64.5mm	Time setting	SIGNAL ON DELAY, SIGNAL OFF DELAY, SIGNAL ON-OFF DELAY, FLICKER, INTERVAL	SIGNAL ON START	11-pin plug	12VDC
					24VAC, 24VDC
					100-240VAC, 24-240VDC
※Sold separately: 11-pin socket (PG-11, PS-11(N))					

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
⅄-△ Analog Timer **AT8SDN**  W48×H48×L64.5mm	Time setting	STAR-DELTA	POWER ON START	8-pin plug	100-240VAC, 24-240VDC
※Sold separately: 8-pin socket (PG-08, PS-08(N))					

Setting Range	Signal Input Method	Control Output		Protection Structure	Approval	Model
		Relay	NPN Open Collector			
0.05 to 0.5 sec, 0.1 to 1 sec, 0.5 to 5 sec, 1 to 10 sec, 0.05 to 0.5 min, 0.1 to 1 min, 0.5 to 5 min, 1 to 10 min, 0.05 to 0.5 hour, 0.1 to 1 hour, 0.5 to 5 hour, 1 to 10 hour, 5 to 50 hour, 10 to 100 hour	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1 + Time-limit SPDT (1c): 1 depending on output operation mode	—	—		AT8N-1
	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1 + Time-limit SPDT (1c): 1 depending on output operation mode	—	—		AT8N-2
	—	Time-limit SPDT (1c): 2 or Instantaneous SPDT (1c): 1 + Time-limit SPDT (1c): 1 depending on output operation mode	—	—		AT8N
0.05 to 0.5 sec, 0.1 to 1 sec, 0.5 to 5 sec, 1 to 10 sec, 0.05 to 0.5 min, 0.1 to 1 min, 0.5 to 5 min, 1 to 10 min, 0.05 to 0.5 hour, 0.1 to 1 hour, 0.5 to 5 hour, 1 to 10 hour, 5 to 50 hour, 10 to 100 hour	No-voltage input (NPN)	Time-limit SPDT (1c): 2	—	—		AT11DN-1
	No-voltage input (NPN)	Time-limit SPDT (1c): 2	—	—		AT11DN-2
	No-voltage input (NPN)	Time-limit SPDT (1c): 2	—	—		AT11DN
0.05 to 0.5 sec, 0.1 to 1 sec, 0.5 to 5 sec, 1 to 10 sec, 0.05 to 0.5 min, 0.1 to 1 min, 0.5 to 5 min, 1 to 10 min, 0.05 to 0.5 hour, 0.1 to 1 hour, 0.5 to 5 hour, 1 to 10 hour, 5 to 50 hour, 10 to 100 hour	No-voltage input (NPN)	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—		AT11EN-1
	No-voltage input (NPN)	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—		AT11EN-2
	No-voltage input (NPN)	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—		AT11EN

Setting Range	Signal Input Method	Control Output		Protection Structure	Approval	Model
		Relay	NPN Open Collector			
0.5 to 5 sec, 1 to 10 sec, 5 to 50 sec, 10 to 100 sec	—	STAR contact: SPST (1a): 1, DELTA contact: SPST (1a): 1	—	—		AT8SDN

Timers

Compact, LCD Display Timer (Indicator Only) / Programmable Timer / Timer (Indicator Only) /
Thumbwheel Switch Setting Type 8-Pin Plug Up · Down Timer / Thumbwheel Switch Setting Type LCD Display Timer / LCD Display Timer /
Multi Function · ⅄-△ · Power OFF Delay · General-Purpose Analog Timer

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
Power OFF Delay Analog Timer **AT8PSN Series**  W48×H48×L64.5mm	Time setting	POWER OFF DELAY	POWER OFF START	8-pin plug	24VAC, 24VDC 100-120VAC 100/110VDC 200-240VAC

※Sold separately: 8-pin socket (PG-08, PS-08(N))

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
Power OFF Delay Analog Timer **AT8PMN Series**  W48×H48×L64.5mm	Time setting	POWER OFF DELAY	POWER OFF START	8-pin plug	24VAC, 24VDC 100-120VAC 100/110VDC 200-240VAC

※Sold separately: 8-pin socket (PG-08, PS-08(N))

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
General-Purpose, Analog Timer **ATE Series**  W48×H48×L80mm	Time setting	POWER ON DELAY	POWER ON START	8-pin plug	110VAC, 220VAC

※Sold separately: 8-pin socket (PG-08, PS-08(N)), Fixing bracket (PGB48-W)

Setting Range	Signal Input Method	Control Output		Protection Structure	Approval	Model
		Relay	NPN Open Collector			
0.05 to 0.5 sec, 0.1 to 1 sec, 0.5 to 5 sec, 1 to 10 sec	—	Time-limit SPDT (1c): 2	—	—		AT8PSN-2
0.05 to 0.5 sec, 0.1 to 1 sec, 0.5 to 5 sec, 1 to 10 sec	—	Time-limit SPDT (1c): 2	—	—		AT8PSN-6
0.05 to 0.5 sec, 0.1 to 1 sec, 0.5 to 5 sec, 1 to 10 sec	—	Time-limit SPDT (1c): 2	—	—		AT8PSN-7
0.05 to 0.5 sec, 0.1 to 1 sec, 0.5 to 5 sec, 1 to 10 sec	—	Time-limit SPDT (1c): 2	—	—		AT8PSN
0.05 to 0.5 min, 0.1 to 1 min, 0.5 to 5 min, 1 to 10 min	—	Time-limit SPDT (1c): 2	—	—		AT8PMN-2
0.05 to 0.5 min, 0.1 to 1 min, 0.5 to 5 min, 1 to 10 min	—	Time-limit SPDT (1c): 2	—	—		AT8PMN-6
0.05 to 0.5 min, 0.1 to 1 min, 0.5 to 5 min, 1 to 10 min	—	Time-limit SPDT (1c): 2	—	—		AT8PMN-7
0.05 to 0.5 min, 0.1 to 1 min, 0.5 to 5 min, 1 to 10 min	—	Time-limit SPDT (1c): 2	—	—		AT8PMN

Setting Range	Control Output		Protection Structure	Approval	Model
	Relay	NPN Open Collector			
0.1 to 1 sec	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-1S
0.3 to 3 sec	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-3S
0.6 to 6 sec	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-6S
1 to 10 sec	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-10S
3 to 30 sec	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-30S
0.6 to 60 sec	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-60S
0.3 to 3 min	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-3M
0.6 to 6 min	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-6M
1 to 10 min	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-10M
3 to 30 min	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-30M
0.6 to 60 min	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-60M
0.3 to 3 hour	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-3H
0.6 to 6 hour	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-6H
1.2 to 12 hour	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-12H
2.4 to 24 hour	Time-limit SPDT (1c): 1, Instantaneous SPST(1a): 1	—	—	—	ATE-24H

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
General-Purpose, Analog Timer **ATE1 Series**  W48×H48×L80mm	Time setting	POWER ON DELAY	POWER ON START	8-pin plug	220VAC 220VAC 24VDC 220VAC 220VAC 110VAC 24VDC 110VAC 220VAC 110VAC 24VDC 220VAC 110VAC 24VDC 220VAC 220VAC 24VDC 220VAC

※Sold separately: 8-pin socket (PG-08, PS-08(N)), Fixing bracket (PGB48-W)

Series	Operation Method	Output Operation	Time Operation	Terminal	Power Supply
General-Purpose, Analog Timer **ATE2 Series**  W48×H48×L80mm	Time setting	POWER ON DELAY	POWER ON START	8-pin plug	220VAC 220VAC 24VDC 220VAC 220VAC 24VDC 220VAC 24VDC 220VAC 24VDC 220VAC

※Sold separately: 8-pin socket (PG-08, PS-08(N)), Fixing bracket (PGB48-W)

Setting Range	Control Output		Protection Structure	Approval	Model
	Relay	NPN Open Collector			
0.1 to 1 sec	Time-limit SPDT (1c): 2	—	—	—	ATE1-1S
0.3 to 3 sec	Time-limit SPDT (1c): 2	—	—	—	ATE1-3S
					ATE1-3S
0.6 to 6 sec	Time-limit SPDT (1c): 2	—	—	—	ATE1-6S
1 to 10 sec	Time-limit SPDT (1c): 2	—	—	—	ATE1-10S
					ATE1-10S
					ATE1-10S
					ATE1-10S
3 to 30 sec	Time-limit SPDT (1c): 2	—	—	—	ATE1-30S
					ATE1-30S
					ATE1-30S
6 to 60 sec	Time-limit SPDT (1c): 2	—	—	—	ATE1-60S
					ATE1-60S
					ATE1-60S
0.3 to 3 min	Time-limit SPDT (1c): 2	—	—	—	ATE1-3M
0.6 to 6 min	Time-limit SPDT (1c): 2	—	—	—	ATE1-6M
1 to 10 min	Time-limit SPDT (1c): 2	—	—	—	ATE1-10M
					ATE1-10M
3 to 30 min	Time-limit SPDT (1c): 2	—	—	—	ATE1-30M
6 to 60 min	Time-limit SPDT (1c): 2	—	—	—	ATE1-60M
0.3 to 3 hour	Time-limit SPDT (1c): 2	—	—	—	ATE1-3H
0.6 to 6 hour	Time-limit SPDT (1c): 2	—	—	—	ATE1-6H
1.2 to 12 hour	Time-limit SPDT (1c): 2	—	—	—	ATE1-12H
2.4 to 24 hour	Time-limit SPDT (1c): 2	—	—	—	ATE1-24H
0.1 to 1 sec	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-1S
0.3 to 3 sec	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-3S
					ATE2-3S
0.6 to 6 sec	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-6S
1 to 10 sec	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-10S
					ATE2-10S
3 to 30 sec	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-30S
					ATE2-30S
6 to 60 sec	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-60S
					ATE2-60S
0.3 to 3 min	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-3M
0.6 to 6 min	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-6M
1 to 10 min	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-10M
3 to 30 min	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-30M
6 to 60 min	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-60M
0.3 to 3 hour	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-3H
0.6 to 6 hour	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-6H
1.2 to 12 hour	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-12H
2.4 to 24 hour	Time-limit SPDT (1c): 1, Instantaneous SPDT (1c): 1	—	—	—	ATE2-24H

Panel Meters

Series	Display Method	Character Height	Max. Display Range	Measurement	Input Specification	AC Measurement
Compact Multi Panel Meter **M4NN Series**  W48×H24×L56.3mm	4digit 7-segment LED	11mm	-1999 to 9999	DC voltage	-600-600V, -200-200V, -100-100V, -20-20V, -10-10V, -2-2V, -1-1V, -200-200mV	—
				AC voltage, Frequency	0-600V, 0-250V, 0-110V, 0-50V, 0-20V, 0-10V, 0-2V, 0-1V	Average value (AVG)
				DC current	-5-5A, -2-2A, -1-1A, -200-200mA, -100-100mA, -20-20mA, 4-20mA, -10-10mA, -2-2mA	—
				AC current, Frequency	0-5A, 0-2.5A, 0-1A, 0-500mA, 0-250mA, 0-100mA, 0-50mA	Average value (AVG)
Compact Panel Meter **M4N Series**  W48×H24×L59mm	3½digit 7-segment LED	10mm	0 to 1999	DC voltage	0-199.9mV	—
					0-1.999V	
					0-19.99V	
					0-199.9V	
					Option	
				DC current	0-199.9μA	—
					0-1.999mA	
					0-19.99mA	
					0-199.9mA	
					Option	
				Digital scaling	DC4-20mA (1-5VDC)	—
Loop Powered Scaling Meter **M4NS**  W48×H24×L48mm	4digit 7-segment LED	10mm	-1999 to 9999	Digital scaling	DC4-20mA	—
Loop Powered Scaling Meter **M4YS**  W72×H36×L77mm	4digit 7-segment LED	14mm	-1999 to 9999	Digital scaling	DC4-20mA	—
Graphic Panel Meter **M4V**  W75×H25×L93mm	4digit 7-segment LED	14mm	-999 to 9999	DC voltage	0-2V, 1-5V, 0-10V	—
				DC current	0-1mA, 4-20mA	—

Power Factor Display	Power Supply	Output		Approval	Model
		Main Output (Comparative Value)	Sub Output (Display Value)		
●	5-24VDC	Indicator	—	CE	M4NN-DV-1N
		NPN open collector (OUT1, GO, OUT2)	—		M4NN-DV-11
		PNP open collector (OUT1, GO, OUT2)	—		M4NN-DV-12
—	5-24VDC	Indicator	—	CE	M4NN-AV-1N
		NPN open collector (OUT1, GO, OUT2)	—		M4NN-AV-11
		PNP open collector (OUT1, GO, OUT2)	—		M4NN-AV-12
●	5-24VDC	Indicator	—	CE	M4NN-DA-1N
		NPN open collector (OUT1, GO, OUT2)	—		M4NN-DA-11
		PNP open collector (OUT1, GO, OUT2)	—		M4NN-DA-12
—	5-24VDC	Indicator	—	CE	M4NN-AA-1N
		NPN open collector (OUT1, GO, OUT2)	—		M4NN-AA-11
		PNP open collector (OUT1, GO, OUT2)	—		M4NN-AA-12
—	5VDC	Indicator	—	—	M4N-DV-01
	12-24VDC				M4N-DV-11
	5VDC	Indicator	—	—	M4N-DV-02
	12-24VDC				M4N-DV-12
	5VDC	Indicator	—	—	M4N-DV-03
	12-24VDC				M4N-DV-13
	5VDC	Indicator	—	—	M4N-DV-04
	12-24VDC				M4N-DV-14
	5VDC	Indicator	—	—	M4N-DV-0X
	12-24VDC				M4N-DV-1X
—	5VDC	Indicator	—	—	M4N-DA-01
	12-24VDC				M4N-DA-11
	5VDC	Indicator	—	—	M4N-DA-02
	12-24VDC				M4N-DA-12
	5VDC	Indicator	—	—	M4N-DA-03
	12-24VDC				M4N-DA-13
	5VDC	Indicator	—	—	M4N-DA-04
	12-24VDC				M4N-DA-14
	5VDC	Indicator	—	—	M4N-DA-0X
	12-24VDC				M4N-DA-1X
—	5VDC	Indicator	—	—	M4N-DI-0X
	12-24VDC				M4N-DI-1X
—	Loop power	Indicator	—	—	M4NS-NA
—	Loop power	Indicator	—	—	M4YS-NA
—	12-24VDC	Indicator	—	—	M4V
—	12-24VDC	Indicator	—	—	

Panel Meters

Series	Display Method	Character Height	Max. Display Range	Measurement	Input Specification	AC Measurement
Multi Panel Meter **MT4N Series**  W48×H24×L83mm	4digit 7-segment LCD	9mm	-1999 to 9999	DC voltage	0-50V, 0-10V, 0-5V, 0-1V, 0-250mV, 0-50mV	—
				AC voltage, Frequency	0-250V, 0-125V, 0-50V, 0-25V, 0-5V, 0-2.5V	Average value (AVG), Root mean square value (RMS)
				DC current	0-500mA, 0-200mA, 0-50mA, 4-20mA, 0-5mA, 0-2mA	—
				AC current, Frequency	0-5A, 0-2.5A, 0-500mA, 0-250mA, 0-100mA, 0-50mA	Average value (AVG), Root mean square value (RMS)
Multi Panel Meter **MT4Y Series**  W72×H36×L77mm	4digit 7-segment LED	14.2mm	-1999 to 9999	DC voltage	0-500V, 0-100V, 0-50V, 0-10V, 0-5V, 0-1V, 0-250mV, 0-50mV	—
				AC voltage, Frequency	0-500V, 0-250V, 0-110V, 0-50V, 0-20V, 0-10V, 0-2V, 0-1V	Average value (AVG), Root mean square value (RMS)
				DC current	0-5A, 0-2A, 0-500mA, 0-200mA, 0-50mA, 4-20mA, 0-5mA, 0-2mA	—
				AC current, Frequency	0-5A, 0-2.5A, 0-1A, 0-500mA, 0-250mA, 0-100mA, 0-50mA	Average value (AVG), Root mean square value (RMS)

※1. Sold separately: Hirose connector socket (HIF3BA-14D-2.54R)

Power Factor Display	Power Supply	Output		Approval	Model
		Main Output (Comparative Value)	Sub Output (Display Value)		
—	■: Type E: 12-24VDC/AC 4: 100-240VAC	Indicator	—	CE (12-24VDC/AC)	MT4N-DV-■N
		Relay (OUT1, OUT2)	—		MT4N-DV-■0
		NPN open collector (OUT1, GO, OUT2)	—		MT4N-DV-■1
		PNP open collector (OUT1, GO, OUT2)	—		MT4N-DV-■2
		Relay (OUT1)	PV transmission (DC4-20mA)		MT4N-DV-■3
		Relay (OUT1)	RS485 communication		MT4N-DV-■4
		Relay (OUT1, OUT2)	PV transmission (DC4-20mA)		MT4N-DV-■5
—	■: Type E: 12-24VDC/AC 4: 100-240VAC	Indicator	—	CE (12-24VDC/AC)	MT4N-AV-■N
		Relay (OUT1, OUT2)	—		MT4N-AV-■0
		NPN open collector (OUT1, GO, OUT2)	—		MT4N-AV-■1
		PNP open collector (OUT1, GO, OUT2)	—		MT4N-AV-■2
		Relay (OUT1)	PV transmission (DC4-20mA)		MT4N-AV-■3
		Relay (OUT1)	RS485 communication		MT4N-AV-■4
		Relay (OUT1, OUT2)	PV transmission (DC4-20mA)		MT4N-AV-■5
—	■: Type E: 12-24VDC/AC 4: 100-240VAC	Indicator	—	CE (12-24VDC/AC)	MT4N-DA-■N
		Relay (OUT1, OUT2)	—		MT4N-DA-■0
		NPN open collector (OUT1, GO, OUT2)	—		MT4N-DA-■1
		PNP open collector (OUT1, GO, OUT2)	—		MT4N-DA-■2
		Relay (OUT1)	PV transmission (DC4-20mA)		MT4N-DA-■3
		Relay (OUT1)	RS485 communication		MT4N-DA-■4
		Relay (OUT1, OUT2)	PV transmission (DC4-20mA)		MT4N-DA-■5
—	■: Type E: 12-24VDC/AC 4: 100-240VAC	Indicator	—	CE (12-24VDC/AC)	MT4N-AA-■N
		Relay (OUT1, OUT2)	—		MT4N-AA-■0
		NPN open collector (OUT1, GO, OUT2)	—		MT4N-AA-■1
		PNP open collector (OUT1, GO, OUT2)	—		MT4N-AA-■2
		Relay (OUT1)	PV transmission (DC4-20mA)		MT4N-AA-■3
		Relay (OUT1)	RS485 communication		MT4N-AA-■4
		Relay (OUT1, OUT2)	PV transmission (DC4-20mA)		MT4N-AA-■5
—	100-240VAC	Indicator	—	CE c UL us	MT4Y-DV-4N
		Relay (HI, GO, LO)	—		MT4Y-DV-40
		NPN open collector (HI, GO, LO)	—		MT4Y-DV-41
		PNP open collector (HI, GO, LO)	—		MT4Y-DV-42
		Relay (LO)	PV transmission (DC4-20mA)		MT4Y-DV-43
		Relay (LO)	RS485 communication		MT4Y-DV-44
		—	BCD dynamic		MT4Y-DV-45※1
		—	Low speed serial		MT4Y-DV-46
—	100-240VAC	Indicator	—	CE c UL us	MT4Y-AV-4N
		Relay (HI, GO, LO)	—		MT4Y-AV-40
		NPN open collector (HI, GO, LO)	—		MT4Y-AV-41
		PNP open collector (HI, GO, LO)	—		MT4Y-AV-42
		Relay (LO)	PV transmission (DC4-20mA)		MT4Y-AV-43
		Relay (LO)	RS485 communication		MT4Y-AV-44
		—	BCD dynamic		MT4Y-AV-45※1
		—	Low speed serial		MT4Y-AV-46
—	100-240VAC	Indicator	—	CE c UL us	MT4Y-DA-4N
		Relay (HI, GO, LO)	—		MT4Y-DA-40
		NPN open collector (HI, GO, LO)	—		MT4Y-DA-41
		PNP open collector (HI, GO, LO)	—		MT4Y-DA-42
		Relay (LO)	PV transmission (DC4-20mA)		MT4Y-DA-43
		Relay (LO)	RS485 communication		MT4Y-DA-44
		—	BCD dynamic		MT4Y-DA-45※1
		—	Low speed serial		MT4Y-DA-46
—	100-240VAC	Indicator	—	CE c UL us	MT4Y-AA-4N
		Relay (HI, GO, LO)	—		MT4Y-AA-40
		NPN open collector (HI, GO, LO)	—		MT4Y-AA-41
		PNP open collector (HI, GO, LO)	—		MT4Y-AA-42
		Relay (LO)	PV transmission (DC4-20mA)		MT4Y-AA-43
		Relay (LO)	RS485 communication		MT4Y-AA-44
		—	BCD dynamic		MT4Y-AA-45※1
		—	Low speed serial		MT4Y-AA-46

Panel Meters

Series	Display Method	Character Height	Max. Display Range	Measurement	Input Specification	AC Measurement
Multi Panel Meter **MT4W Series**※1  W96×H48×L100mm	4digit 7-segment LED	14.2mm	-1999 to 9999	DC voltage	0-500V, 0-100V, 0-50V, 0-10V, 0-5V, 0-1V, 0-250mV, 0-50mV	—
				AC voltage, Frequency	0-500V, 0-250V, 0-110V, 0-50V, 0-20V, 0-10V, 0-2V, 0-1V	Average value (AVG), Root mean square value (RMS)
				DC current	0-5A, 0-2A, 0-500mA, 0-200mA, 0-50mA, 4-20mA, 0-5mA, 0-2mA	—
				AC current, Frequency	0-5A, 0-2.5A, 0-1A, 0-500mA, 0-250mA, 0-100mA, 0-50mA	Average value (AVG), Root mean square value (RMS)

※1. Rear size of MT4W Series is based on indicator model. In case of output model, rear size may be longer due to output hirose connector.
※2. Sold separately: Hirose connector socket (HIF3BA-20D-2.54R)

Power Factor Display	Power Supply	Output		Approval	Model
		Main Output (Comparative Value)	Sub Output (Display Value)		
—	12-24VDC	Indicator	—	CE	MT4W-DV-1N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DV-10
		Relay (HI, GO, LO)	—		MT4W-DV-11
	100-240VAC	Indicator	—	CE cULus	MT4W-DV-4N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DV-40
		Relay (HI, GO, LO)	—		MT4W-DV-41
		NPN open collector (HI, GO, LO)	BCD dynamic		MT4W-DV-42※2
		PNP open collector (HI, GO, LO)	BCD dynamic		MT4W-DV-43※2
		NPN open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DV-44※2
		PNP open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DV-45※2
		NPN open collector (HI, GO, LO)	Low speed serial		MT4W-DV-46※2
		PNP open collector (HI, GO, LO)	Low speed serial		MT4W-DV-47※2
		NPN open collector (HI, GO, LO)	RS485 communication		MT4W-DV-48※2
		PNP open collector (HI, GO, LO)	RS485 communication		MT4W-DV-49※2
—	12-24VDC	Indicator	—	CE	MT4W-AV-1N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AV-10
		Relay (HI, GO, LO)	—		MT4W-AV-11
	100-240VAC	Indicator	—	CE cULus	MT4W-AV-4N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AV-40
		Relay (HI, GO, LO)	—		MT4W-AV-41
		NPN open collector (HI, GO, LO)	BCD dynamic		MT4W-AV-42※2
		PNP open collector (HI, GO, LO)	BCD dynamic		MT4W-AV-43※2
		NPN open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AV-44※2
		PNP open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AV-45※2
		NPN open collector (HI, GO, LO)	Low speed serial		MT4W-AV-46※2
		PNP open collector (HI, GO, LO)	Low speed serial		MT4W-AV-47※2
		NPN open collector (HI, GO, LO)	RS485 communication		MT4W-AV-48※2
		PNP open collector (HI, GO, LO)	RS485 communication		MT4W-AV-49※2
—	12-24VDC	Indicator	—	CE	MT4W-DA-1N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DA-10
		Relay (HI, GO, LO)	—		MT4W-DA-11
		NPN open collector (HI, GO, LO)	RS485 communication		MT4W-DA-18※2
	100-240VAC	Indicator	—	CE cULus	MT4W-DA-4N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DA-40
		Relay (HI, GO, LO)	—		MT4W-DA-41
		NPN open collector (HI, GO, LO)	BCD dynamic		MT4W-DA-42※2
		PNP open collector (HI, GO, LO)	BCD dynamic		MT4W-DA-43※2
		NPN open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DA-44※2
		PNP open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-DA-45※2
		NPN open collector (HI, GO, LO)	Low speed serial		MT4W-DA-46※2
		PNP open collector (HI, GO, LO)	Low speed serial		MT4W-DA-47※2
		NPN open collector (HI, GO, LO)	RS485 communication		MT4W-DA-48※2
		PNP open collector (HI, GO, LO)	RS485 communication		MT4W-DA-49※2
—	12-24VDC	Indicator	—	CE	MT4W-AA-1N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AA-10
		Relay (HI, GO, LO)	—		MT4W-AA-11
	100-240VAC	Indicator	—	CE cULus	MT4W-AA-4N
		Relay (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AA-40
		Relay (HI, GO, LO)	—		MT4W-AA-41
		NPN open collector (HI, GO, LO)	BCD dynamic		MT4W-AA-42※2
		PNP open collector (HI, GO, LO)	BCD dynamic		MT4W-AA-43※2
		NPN open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AA-44※2
		PNP open collector (HI, GO, LO)	PV transmission (DC4-20mA)		MT4W-AA-45※2
		NPN open collector (HI, GO, LO)	Low speed serial		MT4W-AA-46※2
		PNP open collector (HI, GO, LO)	Low speed serial		MT4W-AA-47※2
		NPN open collector (HI, GO, LO)	RS485 communication		MT4W-AA-48※2
		PNP open collector (HI, GO, LO)	RS485 communication		MT4W-AA-49※2

Panel Meters

Series	Display Method	Character Height	Measurement	Input Specification	Max. Display Range
Digital Panel Meter **M4Y Series**  W72×H36×L93mm	3½digit 7-segment LED	14mm	DC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				300V	0 to 300
				Option	0 to 1999
			AC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				400V	0 to 400
				Option	0 to 1999
			DC current	199.9μA	0 to 199.9
				1.999mA	0 to 1.999
				19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/50mV (shunt)	0 to 19.99
				200A/50mV (shunt)	0 to 199.9
				2000A/50mV (shunt)	0 to 1999
				Option	0 to 1999
			AC current	19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/5A (CT)	0 to 19.99
				200A/5A (CT)	0 to 199.9
				2000A/5A (CT)	0 to 1999
				Option	0 to 1999
			AC electric power	199.9W※1	0 to 199.9
				1.999kW※1	0 to 1.999
				19.99kW※1	0 to 19.99
				199.9kW※1	0 to 199.9
				Option	0 to 1999
			Rotation	0-10VDC	0 to 1999
				0-10VAC	0 to 1999
				DC INPUT option	0 to 1999
				AC INPUT option	0 to 1999
			Speed	0-10VDC	0 to 1999
				0-10VAC	0 to 1999
				DC INPUT option	0 to 1999
			Digital scaling	DC4-20mA (1-5VDC)	0 to 1999

※1. Max. display value when output specification 0-10VDC of power transducer as display specification.

AC Measurement	Power Supply (Option)	Output	Approval	Model
—	100-240VAC (24-70VDC)	Indicator	—	M4Y-DV-1
				M4Y-DV-2
				M4Y-DV-3
				M4Y-DV-4
				M4Y-DV-5
				M4Y-DV-XX
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AV-1
Average value (AVG)	100-240VAC			M4Y-AV-2
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AV-3
Root mean square value (RMS)	100-240VAC (5VDC)			M4Y-AVR-3
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AV-4
Root mean square value (RMS)	100-240VAC (5VDC)			M4Y-AVR-4
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AV-6
Root mean square value (RMS)	100-240VAC (5VDC)			M4Y-AVR-6
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AV-XX
Root mean square value (RMS)	100-240VAC (5VDC)			M4Y-AVR-XX
—	100-240VAC	Indicator	—	M4Y-DA-1
				M4Y-DA-2
				M4Y-DA-3
				M4Y-DA-4
				M4Y-DA-5
				M4Y-DA-6
				M4Y-DA-7
				M4Y-DA-8
				M4Y-DA-XX
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AA-1
Root mean square value (RMS)				M4Y-AAR-1
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AA-2
Root mean square value (RMS)				M4Y-AAR-2
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AA-3
Root mean square value (RMS)				M4Y-AAR-3
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AA-4
Root mean square value (RMS)				M4Y-AA4-4
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AA-5
Root mean square value (RMS)				M4Y-AAR-5
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AA-6
Root mean square value (RMS)				M4Y-AAR-6
Average value (AVG)	100-240VAC	Indicator	—	M4Y-AA-XX
Root mean square value (RMS)				M4Y-AAR-XX
—	100-240VAC	Indicator	—	M4Y-W-1
				M4Y-W-2
				M4Y-W-3
				M4Y-W-4
				M4Y-W-XX
—	100-240VA	Indicator	—	M4Y-T-1
Average value (AVG)				M4Y-T-2
—				M4Y-T-DX
Average value (AVG)				M4Y-T-AX
—	100-240VAC	Indicator	—	M4Y-S-1
Average value (AVG)				M4Y-S-2
Root mean square value (RMS)				M4Y-SR-2
—				M4Y-S-DX
—	100-240VAC (24-70VDC)	Indicator	—	M4Y-DI-XX

Panel Meters

Series	Display Method	Character Height	Measurement	Input Specification	Max. Display Range
Digital Panel Meter **M5W Series**  W96×H48×L104mm	4½digit 7-segment LED	14mm	DC voltage	199.99mV	0 to 199.99
				1.9999V	0 to 1.9999
				19.999V	0 to 19.999
				199.99V	0 to 199.99
				300V	0 to 300
				Option	0 to 19999
			AC voltage	199.99mV	0 to 199.99
				1.9999V	0 to 1.9999
				19.999V	0 to 19.999
				199.99V	0 to 199.99
				400V	0 to 400
				Option	0 to 19999
			DC current	199.99μA	0 to 199.99
				1.9999mA	0 to 1.9999
				19.999mA	0 to 19.999
				199.99mA	0 to 199.99
				1.9999A	0 to 1.9999
				20A/50mV (shunt)	0 to 19.999
				200A/50mV (shunt)	0 to 199.99
				2000A/50mV (shunt)	0 to 1999.9
				Option	0 to 19999
			AC current	19.999mA	0 to 19.999
				199.99mA	0 to 199.99
				1.9999A	0 to 1.9999
				20A/5A (CT)	0 to 19.999
				200A/5A (CT)	0 to 199.99
				2000A/5A (CT)	0 to 1999.9
				Option	0 to 19999
			AC electric power	199.99W※1	0 to 199.99
				1.9999kW※1	0 to 1.9999
				19.999kW※1	0 to 19.999
				199.99kW※1	0 to 199.99
				1999.9kW※1	0 to 1999.9
				Option	0 to 19999
			Rotation	0-10VDC	0 to 1999.9
				0-10VAC	0 to 1999.9
				AC INPUT option	0 to 19999
			Speed	0-10VDC	0 to 1999.9
				0-10VAC	0 to 1999.9
				AC INPUT option	0 to 19999
			Digital scaling	DC4-20mA (1-5VDC)	0 to 19999

※1. Max. display value when output specification 0-10VDC of power transducer as display specification.

AC Measurement	Power Supply	Output	Approval	Model
—	100-240VAC	Indicator	—	M5W-DV-1
				M5W-DV-2
				M5W-DV-3
				M5W-DV-4
				M5W-DV-5
				M5W-DV-XX
Root mean square value (RMS)	100-240VAC	Indicator	—	M5W-AV-1
				M5W-AV-2
				M5W-AV-3
				M5W-AV-4
				M5W-AV-5
				M5W-AV-XX
—	100-240VAC	Indicator	—	M5W-DA-1
				M5W-DA-2
				M5W-DA-3
				M5W-DA-4
				M5W-DA-5
				M5W-DA-6
				M5W-DA-7
				M5W-DA-8
				M5W-DA-XX
Root mean square value (RMS)	100-240VAC	Indicator	—	M5W-AA-1
				M5W-AA-2
				M5W-AA-3
				M5W-AA-4
				M5W-AA-5
				M5W-AA-6
				M5W-AA-XX
—	100-240VAC	Indicator	—	M5W-W-1
				M5W-W-2
				M5W-W-3
				M5W-W-4
				M5W-W-5
				M5W-W-XX
—	100-240VAC	Indicator	—	M5W-S-1
Root mean square value (RMS)				M5W-S-2
				M5W-S-AX
—	100-240VAC	Indicator	—	M5W-T-1
Root mean square value (RMS)				M5W-T-2
				M5W-T-AX
—	100-240VAC	Indicator	—	M5W-DI-XX

Panel Meters

Series	Display Method	Character Height	Measurement	Input Specification	Max. Display Range
Digital Panel Meter **M4W Series**  W96×H48×L104mm	3½digit 7-segment LED	14mm	DC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				300V	0 to 300
				Option	0 to 1999
			AC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				400V	0 to 400
				Option	0 to 1999
			DC current	199.9μA	0 to 199.9
				1.999mA	0 to 1.999
				19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/50mV (shunt)	0 to 19.99
				200A/50mV (shunt)	0 to 199.9
				2000A/50mV (shunt)	0 to 1999
				Option	0 to 1999
			AC current	19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/5A (CT)	0 to 19.99
				200A/5A (CT)	0 to 199.9
				2000A/5A (CT)	0 to 1999
				Option	0 to 1999
			AC electric power	199.9W※1	0 to 199.9
				1.999kW※1	0 to 1.999
				19.99kW※1	0 to 19.99
				199.9kW※1	0 to 199.9
				1999kW※1	0 to 1999
				Option	0 to 1999
			Rotation	0-10VDC	0 to 1999
				0-10VAC	0 to 1999
				DC INPUT option	0 to 1999
			Speed	0-10VDC	0 to 1999
				0-10VAC	0 to 1999
				DC INPUT option	0 to 1999
				AC INPUT option	0 to 1999
			Digital scaling	DC4-20mA (1-5VDC)	0 to 1999
			Power factor	DC4-20mA (power factor transducer option)	-0.50 to 1.00 to +0.50

※1. Max. display value when output specification 0-10VDC of power transducer as display specification.

AC Measurement	Power Supply (Option)	Output	Approval	Model
—	110/220VAC (100-240VAC)	Indicator	—	M4W-DV-1
				M4W-DV-2
				M4W-DV-3
				M4W-DV-4
				M4W-DV-5
				M4W-DV-XX
Average value (AVG)	110/220VAC	Indicator	—	M4W-AV-1
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AVR-1
Average value (AVG)	110/220VAC	Indicator	—	M4W-AV-2
Average value (AVG)	110/220VAC	Indicator	—	M4W-AV-3
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AVR-3
Average value (AVG)	110/220VAC	Indicator	—	M4W-AV-4
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AVR-4
Average value (AVG)	110/220VAC	Indicator	—	M4W-AV-6
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AVR-6
Average value (AVG)	110/220VAC	Indicator	—	M4W-AV-XX
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AVR-XX
—	110/220VAC	Indicator	—	M4W-DA-1
				M4W-DA-2
				M4W-DA-3
				M4W-DA-4
				M4W-DA-5
				M4W-DA-6
				M4W-DA-7
				M4W-DA-8
				M4W-DA-XX
Average value (AVG)	110/220VAC	Indicator	—	M4W-AA-1
Average value (AVG)	110/220VAC	Indicator	—	M4W-AA-2
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AAR-2
Average value (AVG)	110/220VAC	Indicator	—	M4W-AA-3
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AAR-3
Average value (AVG)	110/220VAC	Indicator	—	M4W-AA-4
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AAR-4
Average value (AVG)	110/220VAC	Indicator	—	M4W-AA-5
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AAR-5
Average value (AVG)	110/220VAC	Indicator	—	M4W-AA-6
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AAR-6
Average value (AVG)	110/220VAC	Indicator	—	M4W-AA-XX
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W-AAR-XX
—	110/220VAC	Indicator	—	M4W-W-1
				M4W-W-2
				M4W-W-3
				M4W-W-4
				M4W-W-5
				M4W-W-XX
—	110/220VAC (24-70VDC, 100-240VAC)	Indicator	—	M4W-T-1
Average value (AVG)	110/220VAC			M4W-T-2
—	110/220VAC (24-70VDC, 100-240VAC)			M4W-T-DX
—	110/220VAC (100-240VAC)	Indicator	—	M4W-S-1
Average value (AVG)	110/220VAC			M4W-S-2
—	110/220VAC (24-70VDC, 100-240VAC)			M4W-S-DX
Average value (AVG)	110/220VAC			M4W-S-AX
—	110/220VAC (100-240VAC)	Indicator	—	M4W-DI-XX
—	110/220VAC	Indicator	—	M4W-P

Panel Meters

Series	Display Method	Character Height	Measurement	Input Specification	Max. Display Range
Digital Panel Meter **M4W1P Series**  W96×H48×L104mm	3½digit 7-segment LED	10mm	DC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				300V	0 to 300
				Option	0 to 1999
			AC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				400V	0 to 400
				Option	0 to 1999
			DC current	199.9μA	0 to 199.9
				1.999mA	0 to 1.999
				19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/50mV (shunt)	0 to 19.99
				200A/50mV (shunt)	0 to 199.9
				2000A/50mV (shunt)	0 to 1999
				Option	0 to 1999
			AC current	19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/5A (CT)	0 to 19.99
				200A/5A (CT)	0 to 199.9
				2000A/5A (CT)	0 to 1999
				Option	0 to 1999
			AC electric power	199.9W※1	0 to 199.9
				19.99kW※1	0 to 19.99
				199.9kW※1	0 to 199.9
				1999kW※1	0 to 1999
			Rotation	0-10VDC	0 to 1999
				0-10VAC	0 to 1999
				DC INPUT option	0 to 1999
				AC INPUT option	0 to 1999
			Speed	0-10VDC	0 to 1999
				DC INPUT option	0 to 1999
			Digital scaling	DC4-20mA (1-5VDC)	0 to 1999

※1. Max. display value when output specification 0-10VDC of power transducer as display specification.

AC Measurement	Power Supply (Option)	Output	Approval	Model
—	110/220VAC (24-70VDC, 100-240VAC)	Relay (HI)	—	M4W1P-DV-1
				M4W1P-DV-2
				M4W1P-DV-3
				M4W1P-DV-4
				M4W1P-DV-5
				M4W1P-DV-XX
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AV-1
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W1P-AVR-1
Root mean square value (RMS)	110/220VAC (100-240VAC)	Relay (HI)	—	M4W1P-AVR-2
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AV-3
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W1P-AVR-3
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AV-4
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W1P-AVR-4
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AV-6
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W1P-AVR-6
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AV-XX
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W1P-AVR-XX
—	110/220VAC	Relay (HI)	—	M4W1P-DA-1
				M4W1P-DA-2
				M4W1P-DA-3
				M4W1P-DA-4
				M4W1P-DA-5
				M4W1P-DA-6
				M4W1P-DA-7
				M4W1P-DA-8
				M4W1P-DA-XX
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AA-1
Root mean square value (RMS)				M4W1P-AAR-1
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AA-2
Root mean square value (RMS)				M4W1P-AAR-2
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AA-3
Root mean square value (RMS)				M4W1P-AAR-3
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AA-4
Root mean square value (RMS)				M4W1P-AAR-4
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AA-5
Root mean square value (RMS)				M4W1P-AAR-5
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AA-6
Root mean square value (RMS)				M4W1P-AAR-6
Average value (AVG)	110/220VAC	Relay (HI)	—	M4W1P-AA-XX
Root mean square value (RMS)				M4W1P-AAR-XX
—	110/220VAC	Relay (HI)	—	M4W1P-W-1
				M4W1P-W-3
				M4W1P-W-4
				M4W1P-W-5
—	110/220VAC	Relay (HI)	—	M4W1P-T-1
Average value (AVG)	(100-240VAC)			M4W1P-T-2
Root mean square value (RMS)				M4W1P-TR-2
—	(100-240VAC)			M4W1P-T-DX
Root mean square value (RMS)	(24-70VDC)			M4W1P-TR-AX
—	110/220VAC (100-240VAC)	Relay (HI)	—	M4W1P-S-1
	(100-240VAC)			M4W1P-S-DX
—	110/220VAC	Relay (HI)	—	M4W1P-DI-XX

Panel Meters

Series	Display Method	Character Height	Measurement	Input Specification	Max. Display Range
Digital Panel Meter **M4W2P Series**  W96×H48×L104mm	3½digit 7-segment LED	10mm	DC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				300V	0 to 300
				Option	0 to 1999
			AC voltage	199.9mV	0 to 199.9
				1.999V	0 to 1.999
				19.99V	0 to 19.99
				199.9V	0 to 199.9
				400V	0 to 400
				Option	0 to 1999
			DC current	199.9μA	0 to 199.9
				1.999mA	0 to 1.999
				19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/50mV (shunt)	0 to 19.99
				200A/50mV (shunt)	0 to 199.9
				2000A/50mV (shunt)	0 to 1999
				Option	0 to 1999
			AC current	19.99mA	0 to 19.99
				199.9mA	0 to 199.9
				1.999A	0 to 1.999
				20A/5A (CT)	0 to 19.99
				200A/5A (CT)	0 to 199.9
				2000A/5A (CT)	0 to 1999
				Option	0 to 1999
			AC electric power	199.9W※1	0 to 199.9
				1.999kW※1	0 to 1.999
				199.9kW※1	0 to 199.9
				Option	0 to 1999
			Rotation	0-10VDC	0 to 1999
				0-10VAC	0 to 1999
				DC INPUT option	0 to 1999
				AC INPUT option	0 to 1999
			Speed	0-10VDC	0 to 1999
				0-10VAC	0 to 1999
				DC INPUT option	0 to 1999
			Digital scaling	DC4-20mA (1-5VDC)	0 to 1999

※1. Max. display value when output specification 0-10VDC of power transducer as display specification.

AC Measurement	Power Supply (Option)	Output	Approval	Model
—	110/220VAC (24-70VDC, 100-240VAC)	Relay (HI, LOW)	—	M4W2P-DV-1
				M4W2P-DV-2
				M4W2P-DV-3
				M4W2P-DV-4
				M4W2P-DV-5
				M4W2P-DV-XX
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AV-1
Root mean square value (RMS)				M4W2P-AVR-1
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AV-2
Root mean square value (RMS)				M4W2P-AVR-2
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AV-3
Root mean square value (RMS)				M4W2P-AVR-3
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AV-4
Root mean square value (RMS)				M4W2P-AVR-4
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AV-6
Root mean square value (RMS)				M4W2P-AVR-6
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AV-XX
Root mean square value (RMS)				M4W2P-AVR-XX
—	110/220VAC (100-240VAC)	Relay (HI, LOW)	—	M4W2P-DA-1
				M4W2P-DA-2
				M4W2P-DA-3
				M4W2P-DA-4
				M4W2P-DA-5
				M4W2P-DA-6
				M4W2P-DA-7
				M4W2P-DA-8
				M4W2P-DA-XX
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AA-1
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AA-2
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W2P-AAR-2
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AA-3
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W2P-AAR-3
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AA-4
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W2P-AAR-4
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AA-5
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W2P-AAR-5
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AA-6
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W2P-AAR-6
Average value (AVG)	110/220VAC	Relay (HI, LOW)	—	M4W2P-AA-XX
Root mean square value (RMS)	110/220VAC (100-240VAC)			M4W2P-AAR-XX
—	110/220VAC	Relay (HI, LOW)	—	M4W2P-W-1
				M4W2P-W-2
				M4W2P-W-4
				M4W2P-W-XX
—	110/220VAC	Relay (HI, LOW)	—	M4W2P-T-1
Average value (AVG)				M4W2P-T-2
—	(100-240VAC)			M4W2P-T-DX
Average value (AVG)	110/220VAC			M4W2P-T-AX
—	110/220VAC (100-240VAC)	Relay (HI, LOW)	—	M4W2P-S-1
Root mean square value (RMS)	110/220VAC			M4W2P-SR-2
—	(100-240VAC)			M4W2P-S-DX
—	110/220VAC	Relay (HI, LOW)	—	M4W2P-DI-XX

Panel Meters

Series	Display Method	Character Height	Measurement	Input Specification	Max. Display Range
Digital Panel Meter **M4M Series**  W72×H72×L113mm	3½digit 7-segment LED	10mm	DC voltage	19.99V	0 to 19.99
				Option	0 to 1999
			AC voltage	400V	0 to 400
			AC current	200A/5A (CT)	0 to 199.9
				Option	0 to 1999
Digital Panel Meter **M4M1P Series**  W72×H72×L113mm	3½digit 7-segment LED	10mm	DC voltage	199.9mV	0 to 199.9
				199.9V	0 to 199.9
				Option	0 to 1999
			AC voltage	Option	0 to 1999
			AC current	200A/5A (CT)	0 to 199.9
				Option	0 to 1999
			Digital scaling	DC4-20mA (1-5VDC)	0 to 1999
Digital Panel Meter **M4M2P Series**  W72×H72×L113mm	3½digit 7-segment LED	10mm	DC voltage	19.99V	0 to 19.99
				300V	0 to 300
				Option	0 to 1999
			AC voltage	19.99V	0 to 19.99
				400V	0 to 400
				Option	0 to 1999
			DC current	1.999A	0 to 1.999
			AC current	20A/5A (CT)	0 to 19.99
				200A/5A (CT)	0 to 199.9
				Option	0 to 1999
			Digital scaling	DC4-20mA (1-5VDC)	0 to 1999

AC Measurement	Power Supply (Option)	Output	Approval	Model
—	110/220VAC	Indicator	—	M4M-DV-3
				M4M-DV-XX
Average value (AVG)	110/220VAC	Indicator	—	M4M-AV-6
Root mean square value (RMS)				M4M-AVR-6
Average value (AVG)	110/220VAC	Indicator	—	M4M-AA-5
Average value (AVG)				M4M-AA-XX
—	110/220VAC	Relay (HI)	—	M4M1P-DV-1
				M4M1P-DV-4
				M4M1P-DV-XX
Average value (AVG)	110/220VAC	Relay (HI)	—	M4M1P-AV-XX
Average value (AVG)	110/220VAC	Relay (HI)	—	M4M1P-AA-5
Average value (AVG)				M4M1P-AA-XX
Root mean square value (RMS)				M4M1P-AAR-XX
—	110/220VAC	Relay (HI)	—	M4M1P-DI-XX
—	110/220VAC	Relay (HI, LOW)	—	M4M2P-DV-3
				M4M2P-DV-5
				M4M2P-DV-XX
Root mean square value (RMS)	110/220VAC	Relay (HI, LOW)	—	M4M2P-AVR-3
Root mean square value (RMS)				M4M2P-AVR-6
Average value (AVG)				M4M2P-AV-XX
—	110/220VAC	Relay (HI, LOW)	—	M4M2P-DA-5
Average value (AVG)	110/220VAC (24-70VDC, 100-240VAC)	Relay (HI, LOW)	—	M4M2P-AA-4
Average value (AVG)				M4M2P-AA-5
Root mean square value (RMS)				M4M2P-AAR-5
Average value (AVG)				M4M2P-AA-XX
—	110/220VAC	Relay (HI, LOW)	—	M4M2P-DI-XX

Tacho / Speed / Pulse Meters

Series	Display Method	Character Height	Display Range	Measurement	Measurement Range	Input Method
Compact LCD Display Pulse Meter **LR5N-B**  W48×H24×L54mm	4½-digit 7-segment LCD	8.7mm	0 to 10000	Frequency, Revolutions	1 to 10000RPM, 0.1 to 1000.0RPM, 1 to 1000RPS, 1 to 1000Hz, 0.1 to 100.0Hz	Voltage input (PNP), No-voltage input (NPN)
Pulse Meter **MP5S Series**  W48×H48×L90mm	5-digit 7-segment LED	8mm	-19999 to 99999	16 operation modes: Frequency, Revolutions, Speed, Cycle, Time, Ratio, Density, Error, Length measurement, Interval, Accumulation, Addition/Subtraction, etc.	0.0005Hz to 50kHz, 0.01 to max. of each time range, 0 to 99999, -19999 to 99999	Voltage input (PNP), No-voltage input (NPN)
Pulse Meter **MP5Y Series**※1  W72×H36×L100mm	5-digit 7-segment LED	14mm	-19999 to 99999	16 operation modes: Frequency, Revolutions, Speed, Cycle, Time, Ratio, Density, Error, Length measurement, Interval, Accumulation, Addition/Subtraction, etc.	0.0005Hz to 50kHz, 0.01 to max. of each time range, 0 to 99999, -19999 to 99999	Voltage input (PNP), No-voltage input (NPN)
Pulse Meter **MP5W Series**※1  W96×H48×L100mm	5-digit 7-segment LED	14mm	-19999 to 99999	16 operation modes: Frequency, Revolutions, Speed, Cycle, Time, Ratio, Density, Error, Length measurement, Interval, Accumulation, Addition/Subtraction, etc.	0.0005Hz to 50kHz, 0.01 to max. of each time range, 0 to 99999, -19999 to 99999	Voltage input (PNP), No-voltage input (NPN)
Thumbwheel Switch Setting Type Pulse Meter **MP5M Series**  W72×H72×L75mm	5-digit 7-segment LED	8mm	-19999 to 99999	14 operation modes: Frequency, Revolutions, Speed, Cycle, Time, Ratio, Density, Length measurement, Interval, Accumulation, Addition/Subtraction, etc.	0.0005Hz to 50kHz, 0.01 to max. of each time range, 0 to 99999, -19999 to 99999	Voltage input (PNP), No-voltage input (NPN)

※1. Rear size of MP5Y/MP5W is based on indicator model. In case of output model, rear size may be longer due to output hirose connector or output terminal block.
※2. Sold separately: Hirose connector socket (HIF3BA-10D-2.54R)
※3. Sold separately: Hirose connector socket (HIF3BA-20D-2.54R)

Power Supply	External Power Supply	Output		Approval	Model
		Main Output (Comparative Value)	Sub Output (Display Value)		
Built-in battery (over 3 years)	—	Indicator	—	—	LR5N-B
24VAC, 24-48VDC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5S-2N
100-240VAC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5S-4N
24VAC, 24-48VDC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5Y-2N
		NPN open collector (HH, H, GO, L, LL)	—		MP5Y-21※2
		PNP open collector (HH, H, GO, L, LL)	—		MP5Y-22※2
		—	BCD dynamic		MP5Y-23※2
		—	PV transmission (DC0-20mA, DC4-20mA)		MP5Y-24※2
		—	RS485 communication		MP5Y-25※2
		Relay (H, GO, L)	—		MP5Y-26
100-240VAC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5Y-4N
		NPN open collector (HH, H, GO, L, LL)	—		MP5Y-41※2
		PNP open collector (HH, H, GO, L, LL)	—		MP5Y-42※2
		—	BCD dynamic		MP5Y-43※2
		—	PV transmission (DC0-20mA, DC4-20mA)		MP5Y-44※2
		—	RS485 communication		MP5Y-45※2
		Relay (H, GO, L)	—		MP5Y-46
24VAC, 24-48VDC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5W-2N
		Relay (HH, H, GO, L, LL)	—		MP5W-2A
		Relay (H, GO, L)	—		MP5W-21
		NPN open collector (HH, H, GO, L, LL)	BCD dynamic		MP5W-22※3
		NPN open collector (HH, H, GO, L, LL)	PV transmission (DC0-20mA, DC4-20mA)		MP5W-24※3
		PNP open collector (HH, H, GO, L, LL)	PV transmission (DC0-20mA, DC4-20mA)		MP5W-25※3
		NPN open collector (HH, H, GO, L, LL)	RS485 communication		MP5W-28※3
		PNP open collector (HH, H, GO, L, LL)	RS485 communication		MP5W-29※3
100-240VAC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5W-4N
		Relay (HH, H, GO, L, LL)	—		MP5W-4A
		Relay (H, GO, L)	—		MP5W-41
		NPN open collector (HH, H, GO, L, LL)	BCD dynamic		MP5W-42※3
		NPN open collector (HH, H, GO, L, LL)	PV transmission (DC0-20mA, DC4-20mA)		MP5W-44※3
		PNP open collector (HH, H, GO, L, LL)	PV transmission (DC0-20mA, DC4-20mA)		MP5W-45※3
		NPN open collector (HH, H, GO, L, LL)	RS485 communication		MP5W-48※3
		PNP open collector (HH, H, GO, L, LL)	RS485 communication		MP5W-49※3
24VAC, 24-48VDC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5M-2N
		Relay (H)+NPN open collector	—		MP5M-21
		Relay (H, L)+NPN open collector	—		MP5M-22
100-240VAC	Max. 12VDC 80mA	Indicator	—	CE cULus	MP5M-4N
		Relay (H)+NPN open collector	—		MP5M-41
		Relay (H, L)+NPN open collector	—		MP5M-42

Display Units

Intelligent Display Unit / 7-Segment Display Unit / 16-Segment Display Unit / Panel Mount Type 5-Digit Display Unit

Series	Input Method	Input Logic	Display Method	Display Color	Display Characters
Intelligent Display Unit **DS/DA Series**※1 <DS16>  W16×H24×L39.5mm	Serial input	Positive logic (PNP), Negative logic (NPN)	■: Type S: 7-segment LED A: 16-segment LED	Red	Displays 64 types of character and sign (0 to 9, A to Z, 27 signs, dot)
				Green	Displays 64 types of character and sign (0 to 9, A to Z, 27 signs, dot)
<DS22/DA22>  W20×H33×L31.5mm	Parallel (dynamic parallel 1/2) input	Positive logic (PNP), Negative logic (NPN)	■: Type S: 7-segment LED A: 16-segment LED	Red	Displays 64 types of character and sign (0 to 9, A to Z, 27 signs, dot)
				Green	Displays 64 types of character and sign (0 to 9, A to Z, 27 signs, dot)
<DS40/DA40>  W40×H60×L17mm	RS485 communication input	—	■: Type S: 7-segment LED A: 16-segment LED	Red	Displays 64 types of character and sign (0 to 9, A to Z, 27 signs, dot)
				Green	Displays 64 types of character and sign (0 to 9, A to Z, 27 signs, dot)
<DS60/DA60>  W60×H96×L17mm	Pt temperature sensor input (DPt100Ω, JPt100Ω)	—	7-segment LED	Red	-50℃ to 400.0℃ or -58.0 to 752.0°F (display accuracy ±5.0% F.S.)
	Pt temperature sensor input (DPt100Ω, JPt100Ω) +RS485 communication input	—	7-segment LED	Red	-50℃ to 400.0℃ or -58.0 to 752.0°F (display accuracy ±5.0% F.S.)
	RS485 communication input (synchronous time display type)	—	7-segment LED	Red	World local time 12/24hour (supports summer time)
				Green	World local time 12/24hour (supports summer time)

※1. Expansion units and Unit-display unit (DU16, DU22) are available to order separately.

7-Segment Display Unit **D1SC-N**  W72×H96×L25.7mm	Serial input or Parallel (static/dynamic parallel) input	Positive logic (PNP), Negative logic (NPN)	7-segment LED	Red	Decimal: 0 to 9, dot, minus Hexadecimal: 0 to 9, A to F, dot, minus (set by switch)
7-Segment Display Unit **D1SA Series**※  W20×H33×L54mm	Serial input or Parallel (static/dynamic parallel) input	Positive logic (PNP), Negative logic (NPN)	7-segment LED	Red	Decimal: 0 to 9, dot Hexadecimal: 0 to 9, A to F, dot (set by switch)
				Green	Decimal: 0 to 9, dot Hexadecimal: 0 to 9, A to F, dot (set by switch)
16-Segment Display Unit **D1AA Series**※  W20×H33×L54mm	Serial input or Parallel (static/dynamic parallel) input	Positive logic (PNP), Negative logic (NPN)	16-segment LED	Red	61 characters and symbols (0 to 9, A to Z, 24 symbols, dot)
				Green	61 characters and symbols (0 to 9, A to Z, 24 symbols, dot)

※Accessory: Connector (CT-10S)
Sold separately: Right/Left fixing caps (D1□A-RN: DAR(L)-R, D1□A-GN: DAR(L)-BL)

Character Size (mm)	Current Consumption	Max. Multi Connections	Power Supply	Approval	Model
W9×H16	Max. 20mA	24	12-24VDC	CE	DS16-RS
W11.2×H22.5	Max. 25mA				D■22-RS
W22.4×H40	Max. 55mA				D■40-RS
W33.6×H60	Max. 65mA				D■60-RS
W9×H16	Max. 15mA	24	12-24VDC	CE	DS16-GS
W11.2×H22.5	Max. 20mA				D■22-GS
W22.4×H40	Max. 40mA				D■40-GS
W33.6×H60	Max. 45mA				D■60-GS
W11.2×H22.5	Max. 25mA	Dynamic parallel 1 (4-bit): 6 Dynamic parallel 1 (6-bit): 4 Dynamic parallel 2 (6-bit): 24	12-24VDC	CE	D■22-RP
W22.4×H40	Max. 55mA				D■40-RP
W33.6×H60	Max. 65mA				D■60-RP
W11.2×H22.5	Max. 20mA	Dynamic parallel 1 (4-bit): 6 Dynamic parallel 1 (6-bit): 4 Dynamic parallel 2 (6-bit): 24	12-24VDC	CE	D■22-GP
W22.4×H40	Max. 40mA				D■40-GP
W33.6×H60	Max. 45mA				D■60-GP
W9×H16	Max. 20mA	24	12-24VDC	CE	DS16-RT
W11.2×H22.5	Max. 25mA				D■22-RT
W22.4×H40	Max. 55mA				D■40-RT
W33.6×H60	Max. 65mA				D■60-RT
W9×H16	Max. 15mA	24	12-24VDC	CE	DS16-GT
W11.2×H22.5	Max. 20mA				D■22-GT
W22.4×H40	Max. 40mA				D■40-GT
W33.6×H60	Max. 45mA				D■60-GT
W11.2×H22.5	Max. 40mA	4	12-24VDC	CE	DS22-RR
W22.4×H40	Max. 55mA				DS40-RR
W33.6×H60	Max. 65mA				DS60-RR
W22.4×H40	Max. 55mA	4	12-24VDC	CE	DS40-RRT
W33.6×H60	Max. 65mA				DS60-RRT
W11.2×H22.5	Max. 25mA	10	12-24VDC	CE	DS22-RC
W22.4×H40	Max. 55mA				DS40-RC
W33.6×H60	Max. 65mA				DS60-RC
W11.2×H22.5	Max. 20mA	10	12-24VDC	CE	DS22-GC
W22.4×H40	Max. 40mA				DS40-GC
W33.6×H60	Max. 45mA				DS60-GC
W32×H57	Max. 70mA	∞	12-24VDC	—	D1SC-N
W11×H22	Max. 35mA	∞	12-24VDC	—	D1SA-RN
W11×H22	Max. 35mA	∞	12-24VDC	—	D1SA-GN
W11×H22	Max. 32mA	∞	12-24VDC	—	D1AA-RN
W11×H22	Max. 32mA	∞	12-24VDC	—	D1AA-GN

Display Units

Intelligent Display Unit / 7-Segment Display Unit / 16-Segment Display Unit / Panel Mount Type 5-Digit Display Unit

Series	Input Method	Input Logic	Display Method	Display Color	Display Characters
Panel Mount Type 5-Digit Display Unit **D5Y**※  W72×H36×L91mm	Serial input or Parallel (static/dynamic parallel) input	Positive logic (PNP), Negative logic (NPN)	5-digit 7-segment LED	Red	4-digit: -9999 to 9999 5-digit: 0 to 99999 (set by switch)
Panel Mount Type 5-Digit Display Unit **D5W Series**※  W96×H48×L99.5mm	Serial input or Parallel (static/dynamic parallel) input	Positive logic (PNP), Negative logic (NPN)	5-digit 7-segment LED	Red	4-digit: -9999 to 9999 5-digit: 0 to 99999 (set by switch)

※Sold separately: Hirose connector socket (HIF3BA-26D-2.54R)

Character Size (mm)	Power Consumption	Power Supply	Approval	Model
W7×H14	Max. 1.1W	12-24VDC	—	D5Y-M
W7×H14	Max. 1.1W	12-24VDC	—	D5W-M
	Max. 2VA	110/220VAC	—	D5W-MX

Sensor Controllers

Multi, High Performance · General-Purpose Sensor Controller

Series	Input Logic	Number Of Connected Sensors	Power For External Sensor	Power Supply	Power Consumption
Multi, High Performance Sensor Controller **PA10 Series**  W38×H76×L82mm	NPN open collector	2 units	12VDC (approx. 200mA)	100-240VAC	Max.10VA
	NPN open collector & NPN universal	2 units	12VDC (approx. 200mA)	100-240VAC	Max. 10VA
	PNP open collector & PNP universal	2 units	12VDC (approx. 200mA)	100-240VAC	Max. 10VA
	NPN open collector & NPN universal	2 units	12VDC (approx. 200mA)	100-240VAC	Max. 10VA
	PNP open collector & PNP universal	2 units	12VDC (approx. 200mA)	100-240VAC	Max. 10VA
8-Pin Plug Type General-Purpose, Sensor Controller **PA-12 Series**  W50×H80×L70mm	NPN open collector & NPN universal / PNP open collector & PNP universal (set by switch)	1 unit	12VDC (approx. 50mA)	110/220VAC (set by switch)	Max. 4VA
	NPN open collector & NPN universal	1 unit	12VDC (approx. 30mA)	110/220VAC	Max. 4VA
	PNP open collector & PNP universal	1 unit	12VDC (approx. 30mA)	110/220VAC	Max. 4VA

※ Sold separately: 8-pin socket(PG-08, PS-08(N))

Input Operation	Operation Mode	Control Output	Ambient Temperature	Model
Input signal reverse, OR/AND, IN2 derivative action	11 (ON delay mode, OFF delay mode, one-shot delay mode, flicker mode, flicker one-shot mode, low-speed detection mode, high-speed detection mode, ON/OFF delay mode, normal mode, flip-flop mode, encoder mode)	Relay SPDT(1c): 1, NPN open collector: 2	-10 to 55℃	PA10-U
Input signal reverse, AND operation	—	Relay SPDT(1c): 1 NPN open collector: 1	-10 to 55℃	PA10-V
Input signal reverse, AND operation	—	Relay SPDT(1c): 1 NPN open collector: 1	-10 to 55℃	PA10-VP
Input signal reverse, Individual operation	—	Relay SPDT(1c): 2	-10 to 55℃	PA10-W
Input signal reverse, Individual operation	—	Relay SPDT(1c): 2	-10 to 55℃	PA10-WP
—	—	Relay SPDT(1c): 1	-10 to 50℃	PA-12
—	—	NPN open collector: 1	-10 to 50℃	PA-12-PG
—	—	PNP open collector: 1	-10 to 50℃	PA-12-PGP

MOTION DEVICES

Stepper Motors · Stepper Motor Drivers · Motion Controllers

Stepper Motors

Frame Size 24mm·42mm·60mm·85mm·Shaft Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Shaft+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Geared+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 60mm Rotary Actuator+Built-in Brake Type·5-Phase Stepper Motor /

Series	Basic Step Angle [FULL/HALF]	Max. Holding Torque [kgf·cm]	Rotor Moment Of Inertia [g·cm^2]	Winding Resistance [Ω]	Rated Current [A/Phase]
Frame Size 24mm, Shaft Type, 5-Phase Stepper Motor **K Series** 	0.72º/0.36º	0.18	4.2	1.1	0.75
		0.28	8.2	1.7	0.75
Frame Size 42mm, Shaft Type, 5-Phase Stepper Motor **AK Series**	0.72º/0.36º	1.3	35	1.7	0.75
					1.4
		1.8	54	2.2	0.75
					1.4
		2.4	68	2.2	0.75
					1.4

Motor Length [mm]	Shaft Type	Wire Connection	Protection Structure	Approval	Model
30.5	Single shaft	Pentagon	IP30	CE	02K-S523
	Dual shaft	Pentagon	IP30	CE	02K-S523W
46.5	Single shaft	Pentagon	IP30	CE	04K-S525
	Dual shaft	Pentagon	IP30	CE	04K-S525W
33	Single shaft	Pentagon	IP30	CE	A1K-S543
	Dual shaft	Pentagon	IP30	CE	A1K-S543W
	Single shaft	Standard	IP30	CE	A1K-S543-S
	Dual shaft	Standard	IP30	CE	A1K-S543W-S
33	Single shaft	Pentagon	IP30	CE	A1K-M543
	Dual shaft	Pentagon	IP30	CE	A1K-M543W
39	Single shaft	Pentagon	IP30	CE	A2K-S544
	Dual shaft	Pentagon	IP30	CE	A2K-S544W
	Single shaft	Standard	IP30	CE	A2K-S544-S
	Dual shaft	Standard	IP30	CE	A2K-S544W-S
39	Single shaft	Pentagon	IP30	CE	A2K-M544
	Dual shaft	Pentagon	IP30	CE	A2K-M544W
47	Single shaft	Pentagon	IP30	CE	A3K-S545
	Dual shaft	Pentagon	IP30	CE	A3K-S545W
	Single shaft	Standard	IP30	CE	A3K-S545-S
	Dual shaft	Standard	IP30	CE	A3K-S545W-S
47	Single shaft	Pentagon	IP30	CE	A3K-M545
	Dual shaft	Pentagon	IP30	CE	A3K-M545W

Stepper Motors

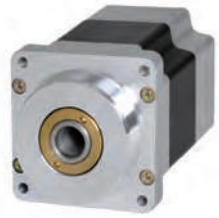
Frame Size 24mm·42mm·60mm·85mm·Shaft Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Shaft+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Geared+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 60mm Rotary Actuator+Built-in Brake Type·5-Phase Stepper Motor /

Series	Basic Step Angle [FULL/HALF]	Max. Holding Torque [kgf·cm]	Rotor Moment Of Inertia [g·cm^2]	Winding Resistance [Ω]	Rated Current [A/Phase]
Frame Size 60mm, Shaft Type, 5-Phase Stepper Motor **AK Series** 	0.72º/0.36º	4.2	175	2.6	0.75
				0.8	1.4
				0.26	2.8
		8.3	280	4	0.75
				1.1	1.4
				0.35	2.8
		16.6	560	1.8	1.4
				0.56	2.8
Frame Size 85mm, Shaft Type, 5-Phase Stepper Motor **AK Series** 	0.72º/0.36º	21	1400	1.76	1.4
				0.4	2.8
		41	2700	2.6	1.4
				0.58	2.8
		63	4000	3.92	1.4
				0.86	2.8

Motor Length [mm]	Shaft Type	Wire Connection	Protection Structure	Approval	Model
48.5	Single shaft	Pentagon	IP30	CE	A4K-S564
	Dual shaft	Pentagon	IP30		A4K-S564W
	Single shaft	Standard	IP30	CE	A4K-S564-S
	Dual shaft	Standard	IP30		A4K-S564W-S
	Single shaft	Pentagon	IP30	CE	A4K-S564H
	Dual shaft	Pentagon	IP30		A4K-S564HW
48.5	Single shaft	Pentagon	IP30	CE	A4K-M564
	Dual shaft	Pentagon	IP30		A4K-M564W
	Single shaft	Standard	IP30	CE	A4K-M564-S
	Dual shaft	Standard	IP30		A4K-M564W-S
	Single shaft	Pentagon	IP30	CE	A4K-M564H
	Dual shaft	Pentagon	IP30		A4K-M564HW
48.5	Single shaft	Pentagon	IP30	CE	A4K-G564
	Dual shaft	Pentagon	IP30		A4K-G564W
59.5	Single shaft	Pentagon	IP30	CE	A8K-S566
	Dual shaft	Pentagon	IP30		A8K-S566W
	Single shaft	Standard	IP30	CE	A8K-S566-S
	Dual shaft	Standard	IP30		A8K-S566W-S
	Single shaft	Pentagon	IP30	CE	A8K-S566H
	Dual shaft	Pentagon	IP30		A8K-S566HW
59.5	Single shaft	Pentagon	IP30	CE	A8K-M566
	Dual shaft	Pentagon	IP30		A8K-M566W
	Single shaft	Standard	IP30	CE	A8K-M566-S
	Dual shaft	Standard	IP30		A8K-M566W-S
	Single shaft	Pentagon	IP30	CE	A8K-M566H
	Dual shaft	Pentagon	IP30		A8K-M566HW
59.5	Single shaft	Pentagon	IP30	CE	A8K-G566
	Dual shaft	Pentagon	IP30		A8K-G566W
89	Single shaft	Pentagon	IP30	CE	A16K-M569
	Dual shaft	Pentagon	IP30		A16K-M569W
	Single shaft	Standard	IP30	CE	A16K-M569-S
	Dual shaft	Standard	IP30		A16K-M569W-S
	Single shaft	Pentagon	IP30	CE	A16K-M569H
	Dual shaft	Pentagon	IP30		A16K-M569HW
89	Single shaft	Pentagon	IP30	CE	A16K-G569
	Dual shaft	Pentagon	IP30		A16K-G569W
	Single shaft	Standard	IP30	CE	A16K-G569-S
	Dual shaft	Standard	IP30		A16K-G569W-S
	Single shaft	Pentagon	IP30	CE	A16K-G569H
	Dual shaft	Pentagon	IP30		A16K-G569HW
68	Single shaft	Pentagon	IP30	CE	A21K-M596
	Dual shaft	Pentagon	IP30		A21K-M596W
	Single shaft	Standard	IP30	CE	A21K-M596-S
	Dual shaft	Standard	IP30		A21K-M596W-S
68	Single shaft	Pentagon	IP30	CE	A21K-G596
	Dual shaft	Pentagon	IP30		A21K-G596W
	Single shaft	Standard	IP30	CE	A21K-G596-S
	Dual shaft	Standard	IP30		A21K-G596W-S
98	Single shaft	Pentagon	IP30	CE	A41K-M599
	Dual shaft	Pentagon	IP30		A41K-M599W
	Single shaft	Standard	IP30	CE	A41K-M599-S
	Dual shaft	Standard	IP30		A41K-M599W-S
98	Single shaft	Pentagon	IP30	CE	A41K-G599
	Dual shaft	Pentagon	IP30		A41K-G599W
	Single shaft	Standard	IP30	CE	A41K-G599-S
	Dual shaft	Standard	IP30		A41K-G599W-S
128	Single shaft	Pentagon	IP30	CE	A63K-M5913
	Dual shaft	Pentagon	IP30		A63K-M5913W
	Single shaft	Standard	IP30	CE	A63K-M5913-S
	Dual shaft	Standard	IP30		A63K-M5913W-S
128	Single shaft	Pentagon	IP30	CE	A63K-G5913
	Dual shaft	Pentagon	IP30		A63K-G5913W
	Single shaft	Standard	IP30	CE	A63K-G5913-S
	Dual shaft	Standard	IP30		A63K-G5913W-S

Stepper Motors

Frame Size 24mm·42mm·60mm·85mm·Shaft Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Shaft+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Geared+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 60mm Rotary Actuator+Built-in Brake Type·5-Phase Stepper Motor /

Series	Basic Step Angle [FULL/HALF]	Max. Holding Torque [kgf·cm]	Rotor Moment Of Inertia [g·cm^2]	Winding Resistance [Ω]	Rated Current [A/Phase]
Frame Size 42mm, Hollow Shaft Type, 5-Phase Stepper Motor **AHK Series** 	0.72º/0.36º	1.3	35	1.7	0.75
		1.8	54	2.2	0.75
		2.4	68	2.2	0.75
Frame Size 60mm, Hollow Shaft Type, 5-Phase Stepper Motor **AHK Series** 	0.72º/0.36º	4.2	175	2.6	0.75
				0.8	1.4
		8.3	280	4	0.75
				1.1	1.4
		16.6	560	1.8	1.4
				0.56	2.8
Frame Size 85mm, Hollow Shaft Type, 5-Phase Stepper Motor **AHK Series** 	0.72º/0.36º	21	1400	1.76	1.4
				0.4	2.8
		41	2700	2.6	1.4
				0.58	2.8
		63	4000	3.92	1.4
				0.86	2.8

Series	Basic Step Angle [FULL/HALF]	Max. Holding Torque [kgf·cm]	Rotor Moment Of Inertia [g·cm^2]	Winding Resistance [Ω]	Rated Current [A/Phase]
Frame Size 42mm, Shaft+Built-in Brake Type, 5-Phase Stepper Motor **AK-B Series** 	0.72º/0.36º	1.3	35	1.7	0.75
		1.8	54	2.2	0.75
		2.4	68	2.2	0.75
Frame Size 60mm, Shaft+Built-in Brake Type, 5-Phase Stepper Motor **AK-B Series** 	0.72º/0.36º	4.2	175	2.6	0.75
				0.8	1.4
		8.3	280	4	0.75
				1.1	1.4
		16.6	560	1.8	1.4
				0.56	2.8
Frame Size 85mm, Shaft+Built-in Brake Type, 5-Phase Stepper Motor **AK-B Series** 	0.72º/0.36º	21	1400	1.76	1.4
				0.4	2.8
		41	2700	2.6	1.4
				0.58	2.8
		63	4000	3.92	1.4
				0.86	2.8

Motor Length [mm]	Shaft Type	Wire Connection	Protection Structure	Approval	Model
33	Single shaft	Pentagon	IP30	CE	AH1K-S543
39	Single shaft	Pentagon	IP30	CE	AH2K-S544
47	Single shaft	Pentagon	IP30	CE	AH3K-S545
48.5	Single shaft	Pentagon	IP30	CE	AH4K-S564
		Standard	IP30		AH4K-S564-S
	Dual shaft	Pentagon	IP30		AH4K-S564W
48.5	Single shaft	Pentagon	IP30	CE	AH4K-M564
	Dual shaft	Pentagon	IP30		AH4K-M564W
59.5	Single shaft	Pentagon	IP30	CE	AH8K-S566
	Dual shaft	Pentagon	IP30		AH8K-S566W
59.5	Single shaft	Pentagon	IP30	CE	AH8K-M566
	Dual shaft	Pentagon	IP30		AH8K-M566W
89	Single shaft	Pentagon	IP30	CE	AH16K-M569
	Dual shaft	Pentagon	IP30		AH16K-M569W
89	Single shaft	Pentagon	IP30	CE	AH16K-G569
	Dual shaft	Pentagon	IP30		AH16K-G569W
68	Single shaft	Pentagon	IP30	CE	AH21K-M596
	Dual shaft	Pentagon	IP30		AH21K-M596W
68	Single shaft	Pentagon	IP30	CE	AH21K-G596
	Dual shaft	Pentagon	IP30		AH21K-G596W
98	Single shaft	Pentagon	IP30	CE	AH41K-M599
	Dual shaft	Pentagon	IP30		AH41K-M599W
98	Single shaft	Pentagon	IP30	CE	AH41K-G599
	Dual shaft	Pentagon	IP30		AH41K-G599W
128	Single shaft	Pentagon	IP30	CE	AH63K-M5913
	Dual shaft	Pentagon	IP30		AH63K-M5913W
128	Single shaft	Pentagon	IP30	CE	AH63K-G5913
	Dual shaft	Pentagon	IP30		AH63K-G5913W

Motor Length [mm]	Shaft Type	Wire Connection	Protection Structure	Approval	Model
56	Single shaft	Pentagon	IP30	CE	A1K-S543-B
62	Single shaft	Pentagon	IP30	CE	A2K-S544-B
70	Single shaft	Pentagon	IP30	CE	A3K-S545-B
75	Single shaft	Pentagon	IP30	CE	A4K-S564-B
		Standard	IP30		A4K-S564-SB
75	Single shaft	Pentagon	IP30	CE	A4K-M564-B
		Standard	IP30		A4K-M564-SB
86	Single shaft	Pentagon	IP30	CE	A8K-S566-B
		Standard	IP30		A8K-S566-SB
86	Single shaft	Pentagon	IP30	CE	A8K-M566-B
		Standard	IP30		A8K-M566-SB
		Pentagon	IP30		A8K-M566H-B
115.5	Single shaft	Pentagon	IP30	CE	A16K-M569-B
		Standard	IP30		A16K-M569-SB
115.5	Single shaft	Pentagon	IP30	CE	A16K-G569-B
		Standard	IP30		A16K-G569-SB
103	Single shaft	Pentagon	IP30	CE	A21K-M596-B
		Standard	IP30		A21K-M596-SB
103	Single shaft	Pentagon	IP30	CE	A21K-G596-B
		Standard	IP30		A21K-G596-SB
133	Single shaft	Pentagon	IP30	CE	A41K-M599-B
		Standard	IP30		A41K-M599-SB
133	Single shaft	Pentagon	IP30	CE	A41K-G599-B
		Standard	IP30		A41K-G599-SB
163	Single shaft	Pentagon	IP30	CE	A63K-M5913-B
		Standard	IP30		A63K-M5913-SB
163	Single shaft	Pentagon	IP30	CE	A63K-G5913-B
		Standard	IP30		A63K-G5913-SB

Stepper Motors

Frame Size 24mm·42mm·60mm·85mm·Shaft Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Shaft+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Geared+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 60mm Rotary Actuator+Built-in Brake Type·5-Phase Stepper Motor /

Series	Basic Step Angle [FULL/HALF]	Max. Allowable Torque [kgf·cm]	Rotor Moment Of Inertia [g·cm^2]	Winding Resistance [Ω]	Rated Current [A/Phase]
Frame Size 42mm, Geared Type, 5-Phase Stepper Motor **AK-G Series** 	0.72º/0.36º	10	68	2.2	0.75
		15	68	2.2	0.75
Frame Size 60mm, Geared Type, 5-Phase Stepper Motor **AK-G Series** 	0.72º/0.36º	35	280	1.1	1.4
		40	280	1.1	1.4
		50	280	1.1	1.4
Frame Size 85mm, Shaft+Built-in Brake Type 5-Phase Stepper Motor **AK-G Series** 	0.72º/0.36º	140	2700	2.6	1.4
				0.58	2.8
		200	2700	2.6	1.4
				0.58	2.8
				2.6	1.4
				0.58	2.8
Frame Size 42mm, Geared+Built-in Brake Type, 5-Phase Stepper Motor **AK-GB Series** 	0.72º/0.36º	3	68	2.2	0.75
		10	68	2.2	0.75
		15	68	2.2	0.75
Frame Size 60mm, Geared+Built-in Brake Type, 5-Phase Stepper Motor **AK-GB Series** 	0.72º/0.36º	35	280	1.1	1.4
		40	280	1.1	1.4
		50	280	1.1	1.4
Frame Size 85mm, Geared+Built-in Brake Type, 5-Phase Stepper Motor **AK-GB Series** 	0.72º/0.36º	140	2700	2.6	1.4
				0.58	2.8
		200	2700	2.6	1.4
				0.58	2.8
				2.6	1.4
				0.58	2.8
Frame Size 60mm, Rotary Actuator Type, 5-Phase Stepper Motor **AK-R Series** 	0.72º/0.36º	35	280	1.1	1.4
		40	280	1.1	1.4
		50	280	1.1	1.4

Motor Length [mm]	Shaft Type	Gear Ratio	Wire Connection	Protection Structure	Approval	Model
74.5	Single shaft	1 : 5	Pentagon	IP30	CE	A10K-S545-G5
	Dual shaft	1 : 5	Pentagon	IP30	CE	A10K-S545W-G5
74.5	Single shaft	1 : 7.2	Pentagon	IP30	CE	A15K-S545-G7.2
	Dual shaft	1 : 7.2	Pentagon	IP30	CE	A15K-S545W-G7.2
	Single shaft	1 : 10	Pentagon	IP30	CE	A15K-S545-G10
	Dual shaft	1 : 10	Pentagon	IP30	CE	A15K-S545W-G10
94.5	Single shaft	1 : 5	Pentagon	IP30	CE	A35K-M566-G5
	Dual shaft	1 : 5	Pentagon	IP30	CE	A35K-M566W-G5
94.5	Single shaft	1 : 7.2	Pentagon	IP30	CE	A40K-M566-G7.2
	Dual shaft	1 : 7.2	Pentagon	IP30	CE	A40K-M566W-G7.2
94.5	Single shaft	1 : 10	Pentagon	IP30	CE	A50K-M566-G10
	Dual shaft	1 : 10	Pentagon	IP30	CE	A50K-M566W-G10
145	Single shaft	1 : 5	Pentagon	IP30	CE	A140K-M599-G5
	Dual shaft	1 : 5	Pentagon	IP30	CE	A140K-M599W-G5
145	Single shaft	1 : 5	Pentagon	IP30	CE	A140K-G599-G5
	Dual shaft	1 : 5	Pentagon	IP30	CE	A140K-G599W-G5
145	Single shaft	1 : 7.2	Pentagon	IP30	CE	A200K-M599-G7.2
	Dual shaft	1 : 7.2	Pentagon	IP30	CE	A200K-M599W-G7.2
145	Single shaft	1 : 7.2	Pentagon	IP30	CE	A200K-G599-G7.2
	Dual shaft	1 : 7.2	Pentagon	IP30	CE	A200K-G599W-G7.2
145	Single shaft	1 : 10	Pentagon	IP30	CE	A200K-M599-G10
	Dual shaft	1 : 10	Pentagon	IP30	CE	A200K-M599W-G10
145	Single shaft	1 : 10	Pentagon	IP30	CE	A200K-G599-G10
	Dual shaft	1 : 10	Pentagon	IP30	CE	A200K-G599W-G10
97.5	Single shaft	1 : 10	Pentagon	IP30	CE	A3K-S545-GB10
97.5	Single shaft	1 : 5	Pentagon	IP30	CE	A10K-S545-GB5
97.5	Single shaft	1 : 7.2	Pentagon	IP30	CE	A15K-S545-GB7.2
		1 : 10	Pentagon	IP30	CE	A15K-S545-GB10
121	Single shaft	1 : 5	Pentagon	IP30	CE	A35K-M566-GB5
121	Single shaft	1 : 7.2	Pentagon	IP30	CE	A40K-M566-GB7.2
121	Single shaft	1 : 10	Pentagon	IP30	CE	A50K-M566-GB10
180	Single shaft	1 : 5	Pentagon	IP30	CE	A140K-M599-GB5
180	Single shaft	1 : 5	Pentagon	IP30	CE	A140K-G599-GB5
180	Single shaft	1 : 7.2	Pentagon	IP30	CE	A200K-M599-GB7.2
180	Single shaft	1 : 7.2	Pentagon	IP30	CE	A200K-G599-GB7.2
180	Single shaft	1 : 10	Pentagon	IP30	CE	A200K-M599-GB10
180	Single shaft	1 : 10	Pentagon	IP30	CE	A200K-G599-GB10
93.5	Single shaft	1 : 5	Pentagon	IP30	CE	A35K-M566-R5
	Dual shaft	1 : 5	Pentagon	IP30	CE	A35K-M566W-R5
93.5	Single shaft	1 : 7.2	Pentagon	IP30	CE	A40K-M566-R7.2
	Dual shaft	1 : 7.2	Pentagon	IP30	CE	A40K-M566W-R7.2
93.5	Single shaft	1 : 10	Pentagon	IP30	CE	A50K-M566-R10
	Dual shaft	1 : 10	Pentagon	IP30	CE	A50K-M566W-R10

Stepper Motors

Frame Size 24mm·42mm·60mm·85mm·Shaft Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Shaft+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 42mm·60mm·85mm Geared+Built-in Brake Type·5-Phase Stepper Motor /
Frame Size 60mm Rotary Actuator+Built-in Brake Type·5-Phase Stepper Motor /

Series	Basic Step Angle [FULL/HALF]	Max. Allowable Torque [kgf·cm]	Rotor Moment Of Inertia [g·cm^2]	Winding Resistance [Ω]	Rated Current [A/Phase]
Frame Size 60mm Rotary Actuator+ Built-in Brake Type, 5-Phase Stepper Motor AK-RB Series 	0.72º/0.36º	35	280	1.1	1.4
		40	280	1.1	1.4
		50	280	1.1	1.4

Motor Length [mm]	Shaft Type	Gear Ratio	Wire Connection	Protection Structure	Approval	Model
120	Single shaft	1 : 5	Pentagon	IP30	CE	A35K-M566-RB5
120	Single shaft	1 : 7.2	Pentagon	IP30	CE	A40K-M566-RB7.2
120	Single shaft	1 : 10	Pentagon	IP30	CE	A50K-M566-RB10

Stepper Motor Drivers

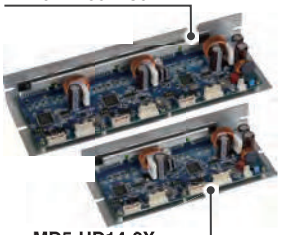
1.4A/Phase, DC Type, 5-Phase Stepper Motor Driver / 1.4A/Phase, AC Type, 5-Phase Stepper Motor Driver/
1.4A/Phase, DC Type, Multi-Axis Board Type, 5-Phase Stepper Motor Driver /

Series	Operation Method	Applied Motor	Resolution
1.4A/Phase, DC Type, 5-Phase Stepper Motor Driver **MD5-HD14**  W39.5×H105×L86mm	Bipolar constant current pentagon drive	5-phase stepper motor	FULL STEP (1-division), HALF STEP (2-division), Micro STEP (4, 5, 8, 10, 16, 20, 25, 40, 50, 80, 100, 125, 200, 250-division)
1.4A/Phase, AC Type, 5-Phase Stepper Motor Driver **MD5-HF14 Series**  W42×H170×L133.5mm	Bipolar constant current pentagon drive	5-phase stepper motor	FULL STEP (1-division), HALF STEP (2-division), Micro STEP (4, 5, 8, 10, 16, 20, 25, 40, 50, 80, 100, 125, 200, 250-division)
2.8A/Phase, AC Type, 5-Phase Stepper Motor Driver **MD5-HF28**  W49×H211.5×L146mm	Bipolar constant current pentagon drive	5-phase stepper motor	FULL STEP (1-division), HALF STEP (2-division), Micro STEP (4, 5, 8, 10, 16, 20, 25, 40, 50, 80, 100, 125, 200, 250-division)
1.5A/Phase, DC Type, 5-Phase Stepper Motor Driver **MD5-ND14**  W32×H93×L55.5mm	Bipolar constant current pentagon drive	5-phase stepper motor	FULL STEP (1-division), HALF STEP (2-division)

Power Supply	Max. Run Current [A/Phase]	Max. Current Consumption [A]	Output	Number Of Axes	Protection Structure	Approval	Model
20-35VDC	1.4	3	Zero point excitation	1-axis	—	CE	MD5-HD14
100-220VAC	1.4	3	Zero point excitation	1-axis	—	CE	MD5-HF14
			Alarm	1-axis	—	CE	MD5-HF14-AO
100-220VAC	2.8	5	Zero point excitation	1-axis	—	CE	MD5-HF28
20-35VDC	1.5	3	—	1-axis	—	CE	MD5-ND14

Stepper Motor Drivers

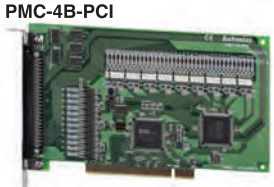
1.4A/Phase, DC Type, 5-Phase Stepper Motor Driver / 1.4A/Phase, AC Type, 5-Phase Stepper M otor Driver/
1.4A/Phase, DC Type, Multi-Axis Board Type, 5-Phase Stepper Motor Driver /

Series	Operation Method	Applied Motor	Resolution
1.4A/Phase, DC Type, Multi-Axis Board Type 5-Phase Stepper Motor Driver **MD5-HD14-3X** W40×H260×L80mm  **MD5-HD14-2X** W40×H190×L80mm	Bipolar constant current pentagon drive	5-phase stepper motor	FULL STEP (1-division), HALF STEP (2-division), Micro STEP (4, 5, 8, 10, 16, 20, 25, 40, 50, 80, 100, 125, 200, 250-division)
	Bipolar constant current pentagon drive	5-phase stepper motor	FULL STEP (1-division), HALF STEP (2-division), Micro STEP (4, 5, 8, 10, 16, 20, 25, 40, 50, 80, 100, 125, 200, 250-division)
Unipolar 2-Phase Stepper Motor Driver **MD2U-MD20**  W39.5×H105×L86mm	Unipolar constant current drive	2-phase stepper motor	FULL STEP (1-division), HALF STEP (2-division), Micro STEP (4, 5, 8, 10, 16, 20-division)
Intelligent Unipolar 2-Phase Stepper Motor Driver **MD2U-ID20**  W39.5×H105×L86mm	Unipolar constant current drive	2-phase stepper motor	Intelligent type※1

※1: Intelligent driver which is not required motion controller operates speed changing, AC motor drive characteristics, for stepper motor.
The unit supports start/drive speed, acceleration/deceleration drive.
Various functions are available by easy operation (Switch, Volume).

Power Supply	Max. Run Current [A/Phase]	Max. Current Consumption [A]	Output	Number Of Axes	Protection Structure	Approval	Model
20-35VDC	1.4	5	—	2-axis	—	CE	MD5-HD14-2X
20-35VDC	1.4	7	—	3-axis	—	CE	MD5-HD14-3X
			Zero point excitation	3-axis	—	CE	MD5-HD14-3X(Z OUT)
24-35VDC	2	3	—	1-axis	—	CE	MD2U-MD20
24-35VDC	2	3	—	1-axis	—	CE	MD2U-ID20

Motion Controllers

Series	Number Of Axes	Type	Main Features	Input/Output Contact	Interpolations	Operation Mode
High-Speed, 1-Axis·2-Axis Motion Controller **PMC-1HS/2HS Series**  W35.5×H90×L64mm	1-axis	Independent type	—	Parallel I/F: 13/4 X-axis: 8/5 (general: 0/1) Y-axis: 8/5 (general: 0/1)	—	INDEX, PROGRAM (64-step), JOG, CONTINUOUS
	2-axis	Independent type	—	Parallel I/F: 13/4 X-axis: 8/6 (general: 2/2) Y-axis: 8/6 (general: 2/2)	—	INDEX, PROGRAM (64-step), JOG, CONTINUOUS
※1: Connection port is RS232C or USB. Refer to the model name.						
General-Purpose, High-Speed, 2-Axis, Interpolation Type **PMC-2HSN/2HSP Series**  W35.5×H90×L64mm	2-axis	Independent type	S-shaped acceleration/ deceleration	Parallel I/F: 13/4 X-axis: 8/6 (general: 2/2) Y-axis: 8/6 (general: 2/2)	—	INDEX, PROGRAM (200-step), JOG, CONTINUOUS
					2-axis linear interpolation, circle interpolation, arc interpolation	INDEX, PROGRAM (200-step), JOG, CONTINUOUS
4-Axis, Board Type, Motion Controller **PMC-4B-PCI**  W174.6×H106.7mm	4-axis	Board type	S-shaped acceleration/ deceleration, Constant linear velocity, Synchronized operation	X, Y, Z, U-axis: 15/8 (general: 0/4)	2/3-axis linear interpolation, arc interpolation, 2/3-axis bit pattern interpolation, constant interpolation	User programming

In-Position Setting	Drive Speed	Connection	Communication Protocol	Applied Library	Power Supply	Approval	Model
ABSOLUTE, INCREMENTAL	1pps to 4Mpps	RS232C	Autonics protocol	—	24VDC	CE	PMC-1HS-232
		RS232C, USB	Autonics protocol	—	24VDC	CE	PMC-1HS-USB
ABSOLUTE, INCREMENTAL	1pps to 4Mpps	RS232C	Autonics protocol	—	24VDC	CE	PMC-2HS-232
		RS232C, USB	Autonics protocol	—	24VDC	CE	PMC-2HS-USB
ABSOLUTE, INCREMENTAL	1pps to 4Mpps	RS485	Modbus RTU	C programming language (provided DLL)	24VDC	CE	PMC-2HSN-485
		USB	Modbus RTU	C programming language (provided DLL)	24VDC	CE KC	PMC-2HSN-USB
ABSOLUTE, INCREMENTAL	1pps to 4Mpps	RS485	Modbus RTU	C programming language (provided DLL)	24VDC	CE	PMC-2HSP-485
		USB	Modbus RTU	C programming language (provided DLL)	24VDC	CE KC	PMC-2HSP-USB
ABSOLUTE, INCREMENTAL	1pps to 4Mpps	PCI Slot	PCI bus	C programming language (provided DLL), LabView	24VDC	CE KC	PMC-4B-PCI