







Product Overview

Type	LCD Timer (LCD type)				
Series	LE8N Series				
Digit	8digit				
Model	LE8N-BN	LE8N-BN-L	LE8N-BV	LE8N-BV-L	LE8N-BF
Appearances & Dimensions	  [W48×H24×L54mm]				
Display method	LCD Zero Blanking type (character height: 8.7mm)				
Operation method	Count up mode				
Power supply	Built-in battery				
Battery life cycle	Approx. over 10 years at 20°C				
Backlight power supply	—	24VDC±10%	—	24VDC±10%	—
Input method	No-voltage input		Voltage input		Free voltage input
Count input (Counter)	Residual voltage: Max. 0.5VDC Short-circuit impedance: Max. 10kΩ Open-circuit impedance: Min. 750kΩ		"H" level voltage: 4.5-30VDC "L" level voltage: 0-2VDC		"H" level voltage: 24-240VAC /6-240VDC "L" level voltage: 0-2VAC/0-2.4VDC
RESET input	No-voltage input		Voltage input		No-voltage input
Min. signal width	SIGNAL INPUT, RESET input: Min. 20ms				
Time specification (TS1)	999 9.5 9.59 (h.m.s), 9999 9.5 9.9 (h.m), 99999 9.59 (h.m)				
Time specification (TS2)	999 9.23.59 (d.h.m), 9999 d.23.9 (d.h), 99999999 (s)				
Time specification (TS3)	9999 h.5 9.9 (h.m), 99999 h.59 (h.m), 99999 9.9 h (h)				
Time error	±0.01% (Time error, Temperature error)				
External set switch	SW1, SW2, SW3				
Reference	K-8 to 11				




※1: SW1 is the front panel RESET key enable/disable set switch.

※2: SW2 is the time range set switch.

※3: SW3 is available to select time specification TS1, TS2, or TS3.

Type	Digital Timer (LCD type)			Digital timer (Backlight LCD type)	
Model	LE3S	LE3SA	LE3SB	LE4S	LE4SA
Appearances & Dimensions	  [W48×H48×L67mm]			  [W48×H48×L70mm]	
Function	Multi time, Multi operation		Multi time, Power ON Delay operation		Multi time, Multi operation
Time setting range	0.01sec to 999hour			0.01sec to 9999hour	
Power supply	24-240VAC 50/60Hz, 24-240VDC universal				
Allowable voltage range	90 to 110% of rated voltage				
Reset time	Max. 200ms		Max. 100ms		
Min. signal width	Min. 20ms		—		Selectable 1 or 20ms
Timing operation	Signal ON Start		Power ON Start		
Control output	Contact type	Time limit SPDT (1c)	Time limit DPDT (2c)	Time limit SPDT (1c), Instantaneous SPDT (1c)	Time limit SPDT (1c)
	Contact capacity	250VAC 5A resistive load	250VAC 3A resistive load		250VAC 5A resistive load
Relay life cycle	Mechanical	Min. 10,000,000 operations			
	Electrical	Min. 100,000 operations (250VAC 5A resistive load)	Min. 100,000 operations (250VAC 3A resistive load)		Min. 100,000 operations (rated contact capacity)
Repeat error	Max. ±0.01%±0.05sec.		Max. ±0.01% ±0.05sec.		
SET error	(Power ON Start)		(Power ON Start)		
Voltage error	Max. 0.005%±0.03sec.		Max. ±0.005% ±0.03sec.		
Temperature error	(Signal ON Start)		(Signal ON Start)		
Reference	K-12 to 19			K-20 to 36	

Product Overview

Item		Programmable Counter/Timer			
Series		CTS		CTY	CTM
Digit		4digit	6digit	6digit	6digit
Model	Single preset type	CT4S-1P□□	CT6S-1P□□	CT6Y-1P□□	CT6M-1P□□
	Dual preset type	CT4S-2P□□	CT6S-2P□□	CT6Y-2P□□	CT6M-2P□□
	Indicator	-	CT6S-I□□	CT6Y-I□□	CT6M-I□□
Appearances & Dimensions		 [W48×H48×L90mm]		 [W72×H36×L77mm]	 [W72×H72×L85mm]
Operation type		Count up, Count down, Count Up/Down			
Power	AC Power	100-240VAC 50/60Hz			
Supply	AC/DC Power	24VAC 50/60Hz, 24-48VDC			
Allowable voltage range		90 to 110% of rated voltage (AC Power type)			
Max. counting speed		Selectable 1cps / 30cps / 1kcps / 5kcps / 10kcps			
Min. input signal width	Counter	Reset signal: Selectable 1ms or 20ms			
	Timer	INA, INB, RESET: Selectable 1ms or 20ms		INA, RESET, INHIBIT, BATCH RESET: Selectable 1ms or 20ms	
Input		Selectable voltage input or No-voltage input [Voltage input] Input impedance is 5.4kΩ, 'H' level: 5-30VDC, 'L' level: 0-2VDC [No-voltage input] Short-circuit impedance: Max. 1kΩ, Residual voltage: Max. 2VDC			
One-shot output		Selectable 0.01s to 99.99s			
Control output	Without com.	Contact output	Dual preset: SPST (1a) 2EA Single preset: SPDT (1c) 1EA		Dual preset: SPST (1a) 1EA, SPDT (1c) 1EA Single preset: SPDT (1c) 1EA
		Solid state output	Dual preset: 1NPN open collector Single preset: 1NPN open collector		Dual preset: 3NPN open collector Single preset: 2NPN open collector
	Com.	Contact output	Dual preset: SPST (1a) 2EA Single preset: SPDT (1c) 1EA		Dual preset: SPST (1a), SPDT (1c) Single preset: SPDT (1c)
		Solid state output	—		Dual preset: 2NPN open collector Single preset: 2NPN open collector
	Capacity	Contact output	250VAC 5A resistive load		250VAC 3A resistive load
		Solid state output	30VDC Max. 100mA Max.		250VAC 5A resistive load
External sensor power		12VDC ±10%, 100mA Max.			
Reference		Refer to the Counter J-8 to 35 for details about Counter/Timer products.			

(A) Photoelectric Sensors

(B) Fiber Optic Sensors

(C) Door/Area Sensors

(D) Proximity Sensors

(E) Pressure Sensors

(F) Rotary Encoders

(G) Connectors/ Sockets






(H) Temperature Controllers

(I) SSRs / Power Controllers

(J) Counters

(K) Timers

(L) Panel Meters

Item		Count up/down Counter/Timer									
Series		FBY		FBS		FX		FXH		FXL	
Digit		4digit	6digit	4digit	5digit	4digit	6digit	4digit	6digit	4digit	6digit
Model	Single preset type	—	—	FX4S	—	FX4	FX6	FX4H	—	—	—
	Dual preset type	—	—	—	—	FX4-2P	FX6-2P	FX4H-2P	—	FX4L-2P	FX6L-2P
	Indicator	FX4Y-I	FX6Y-I	—	FX5S-I	FX4-I	FX6-I	FX4H-I	—	FX4L-I	FX6L-I
Appearances & Dimensions		 [W72×H36×L83mm]		 [W48×H48×L91mm]		 [W72×H72×L112mm]		 [W48×H96×L100mm]		 [W144×H72×L112mm]	
Operation type		Count up, Count down, Count Up/Down									
Power	AC Power	100-240VAC 50/60Hz									
Supply	AC/DC Power	12-24VAC 50/60Hz, 12-24VDC									
Allowable voltage range		90 to 110% of power supply									
Max. counting speed		Selectable 1cps, 30cps, 2kcps, 5kcps by internal DIP switch									
Min. signal range		Min. 20ms (Input INHIBIT, RESET)									
Input type	CP1, CP2 input	[No-voltage input] Impedance at short-circuit: Max. 470Ω, Residual voltage at short-circuit: Max. 1V, Impedance at open-circuit: Min. 100kΩ			[Voltage input] - Input impedance: 10kΩ, "H" level voltage: 5-30VDC, "L" level voltage: 0-2VDC [No-voltage input] - Impedance at short-circuit: Max. 5.4kΩ, Residual voltage at short-circuit: Max. 2V, Impedance at open-circuit: Min. 100kΩ						
	RESET input										
Control output	Contact	Type	—		SPDT (1c)	—		Single preset type: SPDT (1c) 1EA, Dual preset type: SPDT (1c) 2EA			
		Capacity	—		250VAC 3A resistive load	—		250VAC 3A resistive load			
	Solid-state	Type	—		1 NPN open collector	—		Single preset type: 1 NPN open collector, Dual preset type: 2 NPN open collectors			
		Capacity	—		Max. 30VDC 100mA	—		Max. 30VDC 100mA			
External power		12VDC ±10%, 50mA Max.									
Reference		Refer to the Counter J-36 to 58 for details about Counter/Timer products.									

(M) Tacho / Speed / Pulse Meters

(N) Display Units

(O) Sensor Controllers

(P) Switching Mode Power Supplies

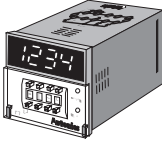

(Q) Stepper Motors & Drivers & Controllers


(R) Graphic/ Logic Panels

(S) Field Network Devices




(T) Software




Product Overview

Item	Digital Timer (LED type)	
Model	FS4E	FS5EI
Appearances & Dimensions	  [W48×H48×L85mm]	
Function	Count up, Count down Timer	
Time setting range	0.01sec. to 9999hour	0.01sec. to 9999.9hour
Power supply	AC Power	100-240VAC 50/60Hz
	AC/DC Power	12-24VAC 50/60Hz, 12-24VDC
Allowable voltage range	90 to 110% of rated voltage	
Reset time	Max. 500ms	
Min. signal width	Min. 20ms	
Time operation	Power ON Start	
Memory protection	Approx. 10 year (when using non-volatile semiconductor memory)	
Control output	Contact type	Time limit SPDT (1c) —
	Contact capacity	250VAC 3A resistive load —
Relay life cycle	Mechanical	Min. 10,000,000 operations —
	Electrical	Min. 100,000 operations (250VAC 3A resistive load) —
Repeat error	Max. ±0.01% ±0.05sec.	
SET error		
Voltage error		
Temperature error		
Reference	K-37 to 41	

Item	Small Timer		
Model	ATM4 - 2□S 2□M 23H	ATM4 - 5□S 5□M 53H	ATM4 - 6□S 6□M 63H
Appearances & Dimensions	 [W21.5×H28×L59.3mm]		
Function	Power ON Delay		
Time setting range	sec (1, 5, 10, 30, 60), min (3, 5, 10, 30, 60), hour (3)		
Power supply	24VDC	220VAC 50/60Hz	110VAC 50/60Hz
Allowable voltage	21.6~26.4VDC	200-230VAC 50/60Hz	100-120VAC 50/60Hz
Reset time	Max. 100ms		
Timing operation	Power ON Start		
Control output	Contact type	4PDT (4c)	
	Contact capacity	250VAC 3A resistive load	
Relay life cycle	Mechanical	Min. 1,000 operations	
	Electrical	Min. 20 operations (250VAC 3A resistive load)	
Repeat error	Max. ±0.5% ±10ms		
SET error	Max. ±10% ±50ms		
Voltage error	Max. ±0.5% ±10ms		
Temperature error	Max. ±2% ±10ms		
Reference	K-42 to 44		

Product Overview

Item	Analog Multi Function Timer					
Model	ATS8-□1	ATS8-□3	ATS11-□1D	ATS11-□3D	ATS11-□1E	ATS11-□3E
Appearances & Dimensions	 [W38×H42×L75.5mm]		 [W38×H42×L75.5mm]		 [W38×H42×L75.5mm]	
	Function Multi Time Rangen, Multi Function (includes 6 output modes)					
Time setting range	0.1sec to 10hour	0.3sec to 30hour	0.1sec to 10hour	0.3sec to 30hour	0.1sec to 10hour	0.3sec to 30hour
Power supply	• 100-240VAC 50/60Hz, 24-240VDC universal • 24VAC 50/60Hz, 24VDC universal • 12VDC					
Allowable voltage range	90 to 110% of rated voltage					
Reset time	Max. 100ms					
Min. signal width	—			Min. 50ms		
Timing operation	Power ON Start			Signal ON Start		
Control output	Contact type	Time limit DPDT (2c), Time limit DPDT (1c)+ Instantaneous DPDT (1c) by selecting by output operation mode		Time limit DPDT (2c)		Time limit SPDT (1c), Instantaneous SPDT (1c)
	Contact capacity	250VAC 3A resistive load				
Relay life cycle	Mechanical	Min. 10,000,000 operations				
	Electrical	Min. 100,000 operations (Rated contact capacity)				
Repeat error	Max. ±0.2 % ±10ms					
SET error	Max. ±5% ±50ms					
Voltage error	Max. ±0.5%					
Temperature error	Max. ±2%					
Reference	K-45 to 51					

Item	Star-Delta Timer	Power OFF Delay Timer		Twin (Flicker) Timer			
Model	ATS8SD-4	ATS8P-□S	ATS8P-□M	ATS8W-□1	ATS11W-□1	ATS8W-□3	ATS11W-□3
Appearances & Dimensions	 [W38×H42×L75.5mm]	 [W38×H42×L75.5mm]		 [W38×H42×L75.5mm]			
	Function Star (λ)-Delta (Δ)						
Time setting range	0.5 to 100sec (max. time)	0.1sec to 10sec	0.1min to 10min	0.1sec to 10hour		0.3sec to 30hour	
Power supply	•100-240VAC 50/60Hz, 24-240VDC universal	•100-120VAC 50/60Hz •200-240VAC 50/60Hz •24VAC 50/60Hz, 24VDC universal		•100-240VAC 50/60Hz, 24-240VDC universal •24VAC 50/60Hz, 24VDC universal •12VDC			
Allowable voltage range	90 to 110% of rated voltage						
Reset time	Max.100ms	—		Max.100ms			
Time operation	Power ON Start	Power OFF Start		Power ON Start			
Control output	Contact type	λ contact: SPST (1a), Δ contact: SPST (1a)		Time limit DPDT (2c)		Time limit DPDT (2c), Instantaneous SPDT (1c)+Time limit SPDT (1c) selectable by output operation mode	
	Contact capacity	250VAC 3A resistive load					
Relay life cycle	Mechanical	Min. 10,000,000 operations					
	Electrical	Min. 100,000 operations (250VAC 3A resistive load)					
λSetting error	Max. ±5% ±50ms		—				
λ-Δ Switching time error	Max. ±25%		—				
Repeat error	Max. ±0.2% ±10ms						
SET error	—			Max. ±5% ±50ms			
Voltage error	Max. ±0.5%						
Temperature error	Max. ±2%						
Reference	K-52 to 54		K-55 to 57		K-58 to 61		

(A) Photoelectric Sensors

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(D) Proximity Sensors

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(F) Rotary Encoders

(G) Connectors/ Sockets

(H) Temperature Controllers

(I) SSRs / Power Controllers

(J) Counters

(K) Timers

(L) Panel Meters

(M) Tacho / Speed / Pulse Meters

(N) Display Units

(O) Sensor Controllers

(P) Switching Mode Power Supplies




(Q) Stepper Motors & Drivers & Controllers

(R) Graphic/ Logic Panels

(S) Field Network Devices




(T) Software



Product Overview

Item	Analog Multi Function Timer		
Model	AT8N	AT11EN	AT11DN
Appearances & Dimensions			
	[W48×H48×L65mm]	[W48×H48×L65mm]	[W48×H48×L65mm]
Function	Multi Function Timer (includes 6 output modes)		
Time setting range	0.05sec to 100hour		
Power supply	•100-240VAC 50/60Hz, 24-240VDC universal •24VAC 50/60Hz, 24VDC universal •12VDC		
Allowable voltage range	90 to 110% of rated voltage		
Reset time	Max. 100ms		
Min. signal width	—		Min. 50ms
Time operation	Power ON Start		Signal ON Start
Control output	Contact type	Time limit DPDT (2c), Time limit DPDT (1c)+ Instantaneous DPDT (1c) by output operation mode	Time limit SPDT (1c), Instantaneous SPDT (1c)
	Contact capacity	250VAC 5A resistive load	
Relay life cycle	Mechanical	Min. 10,000,000 operations	
	Electrical	Min. 100,000 operations (250VAC 5A resistive load)	
Repeat error	Max. ±0.2 % ±10ms		
SET error	Max. ±5% ±50ms		
Voltage error	Max. ±0.5%		
Temperature error	Max. ±2%		
Reference	K-62 to 68		

Item	Analog Timer		
Model	AT8SDN	AT8PSN	AT8PMN
Appearances & Dimensions			
	[W48×H48×L65mm]	[W48×H48×L65mm]	[W48×H48×L65mm]
Function	Star (λ)-Delta (Δ)	Power OFF Delay Timer	
Time setting range	0.5 to 100sec.	0.05 to 10sec.	0.05 to 10min.
Power supply	100-240VAC 50/60Hz, 24-240VDC universal	• 100-120VAC 50/60Hz • 100/110VDC	• 200-240VAC 50/60Hz • 24VAC 50/60Hz, 24VDC universal
Allowable voltage range	90 to 110% of rated voltage		
Reset time	Max. 100ms	—	
Timing operation	Power ON Start	Power OFF Start	
Control output	Contact type	λ contact: SPST (1a), Δ contact: SPST (1a)	Time limit DPDT (2c)
	Contact capacity	250VAC 5A resistive load	250VAC 3A resistive load
Relay life cycle	Mechanical	Min. 10,000,000 operations	
	Electrical	Min. 100,000 operations (250VAC 5A resistive load)	Min. 100,000 operations (250VAC 3A resistive load)
λ-Δ Setting error	Max. ±5% ±50ms	—	
λ-Δ Switching time error	Max. ±25%	—	
Repeat error	Max. ±0.2 % ±10ms	—	
Set error	—	Max. ±5% ±50ms	
Voltage error	Max. ±0.5%	—	
Temperature error	Max. ±2%	—	
Reference	K-69 to 71	K-72 to 74	

Product Overview

Item	Analog Timer		
Model	ATE- □S, □M, □H	ATE1- □S, □M, □H	ATE2- □S, □M, □H
Appearances & Dimensions			
	[W48×H48×L80mm]	[W48×H48×L80mm]	[W48×H48×L80mm]
Function	Power ON Delay timer (general purpose timer)		
Time setting range	Sec. (1, 3, 6, 10, 30, 60), Min. (3, 6, 10, 30, 60), Hour (3, 6, 12, 24)		
Power supply	110/220VAC 50/60Hz	110VAC, 220VAC 50/60Hz, 12VDC, 24VDC	
Allowable voltage	90 to 110% of rated voltage		
Reset time	Max. 200ms		
Timing operation	Power ON Start		
Control output	Contact type	Time limit SPDT (1c), Instantaneous SPDT (1a)	Time limit DPDT (2c)
	Contact capacity	250VAC 3A resistive load	
Relay life cycle	Mechanical	Min. 10,000,000 operations	
	Electrical	Min. 100,000 operations (250VAC 3A resistive load)	
Repeat error	Max. ±0.3%		
SET error	Max. ±5% ±0.05sec.		
Voltage error	Max. ±0.5%		
Temperature error	Max. ±2%		
Reference	K-75 to 77		

Item	Digital Weekly/Yearly Timer (LCD type)	
Model	LE7M-2	LE365S-41
Appearances & Dimensions		
	[W72×H72×L60mm]	[W48×H48×L60mm]
Function	Weekly/Yearly timer	
Power supply	100-240VAC 50/60Hz	
Allowable voltage range	90 to 110% of rated voltage	
Timing program	48 steps for weekly, 24 steps for yearly	
Operation mode	ON/OFF mode, cycle mode, pulse mode	
Time deviation	±15sec/month (ambient temperature: 25°C) (±4sec/week)	
Memory protection	Over 5 years (at 25°C)	
Control Output	Contact type	SPDT (Single Pole Double Throw)
	Contact capacity	250VAC 10A resistive load
	Output number	Independent 2 circuit (1c × 2)
Relay life cycle	Mechanical	Min. 5,000,000 operations (switching capacity: 30 operations/minute)
	Electrical	50,000 operations<Switching capacity: 20 operations/min., at 250VAC 10A resistive load>
Reference	K-78 to 89	K-90 to 100

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