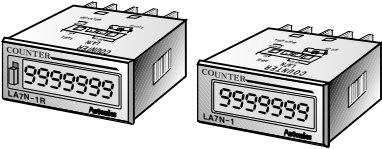



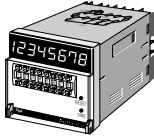



SELECTION GUIDE

COUNTER(LCD COUNTER)

Series	LA7N SERIES										
Digit	7										
Model	LA7N-1	LA7N-2	LA7N-3	LA7N-4	LA7N-1R	LA7N-2R	LA7N-3R	LA7N-4R	LA7N-F	LA7N-FR	
Appearances & Dimensions	 <p>CE *Except free voltage input type</p> <p>[W48×H24×L48mm]</p>										
Operation mode	UP mode only										
Power supply	3VDC (Battery built-in)										
Counting speed	1cps	30cps	1kcps	7kcps	1cps	30cps	1kcps	7kcps	20cps		
Reset	Manual(Front)	None				Have				None	Have
	External(Terminal)	Have									
Counting input	<ul style="list-style-type: none"> No-voltage input : <ul style="list-style-type: none"> ON impedance at short-circuit : Max. 10kΩ OFF impedance at open circuit : Min. 500kΩ Voltage input <ul style="list-style-type: none"> "H" level:24 to 240VAC, 6 to 240VDC "L" level:0 to 1.5VAC, 0 to 2VDC 										
Reset input											
Battery life cycle	About 7 years at 25°C										




COUNTER

※ Measure counter






Series	FS SERIES		F SERIES		L SERIES		FM SERIES		LM SERIES		
Digit	4	5	8		8		4	6	4	6	
Model	Single preset	FS4A	F8A		L8A		F4BM-2P		L4AM	L6AM	
	Double preset	—	—		—		F6AM-2P	L4BM-2P	L6AM-2P		
	Totalizer (Indication)	—	FS5B	F8B	L8B	F4BM	F6BM	L4BM	L6BM		
Appearances & Dimensions	 <p>[W48×H48×L88mm]</p>		 <p>NEW [W72×H72×L129mm]</p>		 <p>NEW [W144×H72×L122mm]</p>		 <p>UPGRADE [W72×H72×L125mm]</p>		 <p>UPGRADE [W144×H72×L122mm]</p>		
Operation	UP, DOWN mode		UP, DOWN, UP/DOWN mode								
Power supply	100 to 240VAC 50/60Hz, 12-24VDC(Option)										
Max. counting speed	Selectable 1cps, 30cps, 2kcps, 5kcps(by DIP SW)										
Input	Count input (CP1, CP2 input)	[No-voltage input] • Residual voltage at short-circuit : Max. 1VDC • Impedance at short-circuit : Max. 470kΩ • Impedance at open circuit : Min.100kΩ		[voltage input] Input impedance : 5.4kΩ, "H" level : 5-30VDC, "L" level : 0-2VDC							
	Reset input	[No-voltage input] Short-circuit impedance : Max. 1kΩ Residual voltage : Max. 2VDC, Open-circuit impedance : Min. 100kΩ									
Control output	Contact	Type	SPST(1a)	—		SPDT(1c)		Single preset type: SPDT(1c) Double preset type: 1st output:SPST(1a), 2nd output:SPST(1a)		Single preset type: SPDT(1c) Double preset type: 1st output:SPDT(1c), 2nd output:SPDT(1c)	
		Capacity	250VAC 3A resistive load	—		250VAC 3A resistive load					
	Solid-state	Type	NPN open collector	—		NPN open collector		Single preset type:NPN open collector Double preset type:1st output NPN open collector 2nd output NPN open collector			
		Capacity	30VDC, 100mA Max.	—		30VDC 100mA Max.					
One shot output time	0.05-5sec					Single preset type : 0.5sec fixed, Double preset type : 0.05-5sec					
Memory retention	10 years(When using non-volatile semiconductor memory)										

SELECTION GUIDE

COUNTER/TIMER(CTY/CT/CTS SERIES)

Series	CTY SERIES		CTS SERIES		CT SERIES
Digit	6		4	6	6
Model	Single preset	CT6Y	CT4S	CT6S	CT6
	Double preset	CT6Y-2P	CT4S-2P	CT6S-2P	CT6-2P
	Totalizer (Indication)	CT6Y-I	—	CT6S-I	CT6-I
Appearances & Dimensions	 [W72×H36×L83mm]	 [W48×H48×L90mm]	 [W72×H72×L85mm]		
Power supply	100 to 240VAC 50/60Hz, 24 to 60VDC				
Max. counting speed	Selectable 1cps, 30cps, 1kcps, 5kcps, 10kcps				
Prescale range	0.001 to 99.999(6digit), 0.01 to 9.99(4digit)				
Input	Selectable voltage input or No-voltage input • Voltage input \Rightarrow 5.4k Ω (Input impedance), "H" level voltage:5 to 30VDC, "L" level voltage:0 to 2VDC • No-voltage input \Rightarrow Impedance at short-circuit:Max. 1k Ω , Residual voltage:Max. 2VDC, Impedance at open circuit : Min. 100k Ω				
One shot output time	10/ 50/ 100/ 200/ 500/ 1000/ 2000/ 5000ms				
Control output	Con-tact	Type	Single preset : SPDT(1c), Double preset : Single output SPST(1a), Double output SPDT(1c)		
		Capacity	NO : 250VAC 3A at resistive load, NC : 250VAC 2A at resistive load		
	Solid-state	Type	Single(OUT1) & Double preset(OUT2): 1 NPN open collector		
Capacity		Max. 30VDC, Max. 100mA			
Protection	IP65(Front panel)				

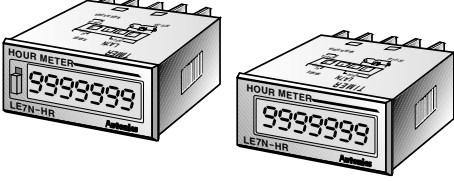
COUNTER/TIMER(FX SERIES)

Series	FX SERIES									
Digit	4	6	4	5	4	6	4	4	6	
Model	Single preset	—	—	FX4S	—	FX4	FX6	FX4H	—	—
	Double preset	—	—	—	—	FX4-2P	FX6-2P	FX4H-2P	FX4L-2P	FX6L-2P
	Totalizer (Indication)	FX4Y-I	FX6Y-I	—	FX5S-I	FX4-I	FX6-I	FX4H-I	FX4L-I	FX6L-I
Appearances & Dimensions	 [W72×H36×L93mm]	 [W48×H48×L91mm]	 [W72×H72×L113mm]	 [W48×H96×L100mm]	 [W144×H72×L112mm]					
Input operation mode	UP/DOWN input(Command input, Individual input, Phase difference input), UP input, DOWN input									
Power supply	100 to 240VAC 50/60Hz, 12 to 24VDC									
Max. counting speed	selectable 30cps, 5kcps					Selectable 1cps, 30cps, 2kcps, 5kcps				
Input	CP1, CP2 input	No-voltage input \Rightarrow Short-circuit impedance : Max. 470 Ω Residual voltage : Max. 1VDC Open-circuit impedance : Min. 100k Ω			Voltage input, Non-voltage input(PNP, NPN selectable) [Voltage input] Input impedance is 5.4k Ω , "H" level : 5-30VDC, "L" level : 0-2VDC [No-voltage input] Short-circuit impedance : Max. 1k Ω , Residual voltage : Max. 2VDC, Open-circuit impedance : Min. 100k Ω					
	Reset input									
Control output	Contact	Type	SPDT(1c)			Single preset type:SPDT(1c), Double preset type:1st output SPDT(1c), 2nd output:SPDT(1c)				
		Capacity	250VAC 3A resistive load			250VAC 3A resistive load				
	Solid-state	Type	NPN open collector			Single preset type : NPN open collector Double preset Type : 1st output NPN open collector, 2nd output NPN open collector				
Capacity		30VDC max. 100mA max.			30VDC Max. 100mA Max.					

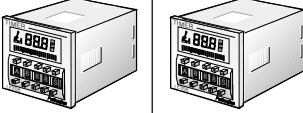
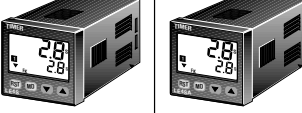
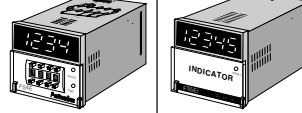
*Upgrade functions are , Selectable decimal point is available from Jan. 2004

SELECTION GUIDE

HOURLY METER(LCD TIMER)

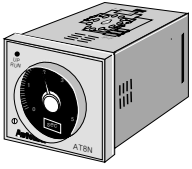
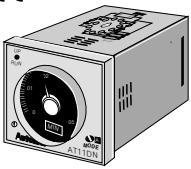
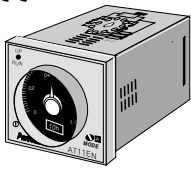

Series	LE7N SERIES								
Type	No-voltage input type				Voltage input type				
Model	LE7N-S	LE7N-M	LE7N-H	LE7N-HR	LE7N-SF	LE7N-MF	LE7N-HF	LE7N-HFR	
Digit	7								
Appearances & Dimensions									
	<p>CE *Except free voltage input type</p> <p>[W48×H24×L48mm]</p>								
Operation mode	UP mode only								
Power supply	3VDC (Battery built-in)								
Time specification	0.0s to 99h59m59.9s	0.0m to 9999h59.9	0.0h to 999999.9h	0.0h to 999999.9h	0.0s to 99h59m59.9s	0.0m to 9999h59.9m	0.0h to 999999.9h	0.0h to 999999.9h	
Reset	Manual (Front)	None			Have		None		Have
	External (Terminal)	Have							
Inhibit input	<ul style="list-style-type: none"> No-voltage input : <ul style="list-style-type: none"> ON impedance at short-circuit : Max. 10kΩ 				Voltage input : 24 to 240VAC, 6 to 240VDC				
Reset input	<ul style="list-style-type: none"> OFF impedance at open circuit : Min. 500kΩ 								
Battery life cycle	About 7 years at 25°C								

DIGITAL TIMER

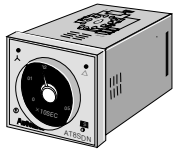
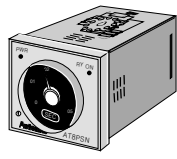
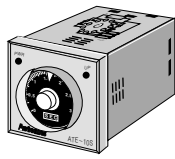
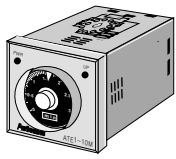
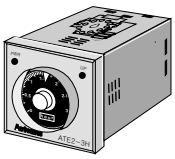
Type	LCD Type		Back Light LCD Type		LED Type			
Model	LE3S	LE3SA, LE3SB	LE4S	LE4SA	FS4E	FS5EI		
Appearances & Dimensions								
	[H48×W48×L68mm]		[H48×W48×L86mm]		[H48×W48×L88mm]			
Operation	Multi function, Multi time range		Multi function, Multi time range		UP, DOWN time			
Power supply	100 to 240VAC 50/60Hz, 24 to 240VDC		110V, 220VAC 50/60Hz		100 to 240VAC 50/60Hz, 12 to 24VDC (Option)			
Input	START input	<ul style="list-style-type: none"> No-voltage input • Impedance at short-circuit : Max. 1kΩ • Residual voltage at short-circuit : Max. 0.5VDC • Impedance at open circuit : Min.100kΩ 	<ul style="list-style-type: none"> No-voltage input • Impedance at short-circuit : Max. 1kΩ • Residual voltage at short-circuit : Max. 1VDC • Impedance at open circuit : Min.100kΩ 	<ul style="list-style-type: none"> No-voltage input • Impedance at short-circuit : Max. 1kΩ • Residual voltage at short-circuit : Max. 1VDC • Impedance at open circuit : Min.100kΩ 	—			
	INHIBIT input				<ul style="list-style-type: none"> • POWER ON START 	<ul style="list-style-type: none"> • POWER ON START 	<ul style="list-style-type: none"> No-voltage input • Impedance at short-circuit:Max. 1kΩ • Residual voltage at short-circuit: Max. 0.5VDC • Impedance at open circuit:Min.100kΩ 	
	RESET input						—	
Control output	Contact Type	LE3SA Time-limit:DPDT(2c) LE3SB Time-limit:SPDT(1c), Instantaneous: SPDT(1c)	Time-limit: SPDT(1c)	Time-limit:DPDT(2c) Time-limit:SPDT(1c)+ Instantaneous:SPDT(1c) selectable	Time-limit: SPDT(1c)	—		
	Contact Capacity	250VAC 5A resistive load	250VAC 3A resistive load	N.O Contact:250VAC 3A resistive load N.C Contact:250VAC 2A resistive load	250VAC 3A resistive load	—		

SELECTION GUIDE

ANALOG TIMER

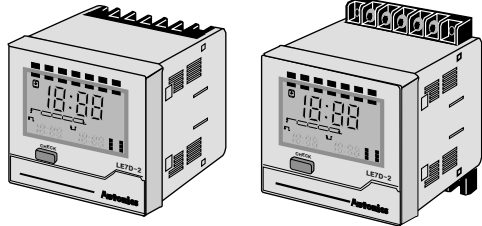
Type	Multi Timer			
Model	AT8N	AT11DN	AT11EN	
Appearances & Dimensions	 [W48×H48×L65mm]	 [W48×H48×L65mm]	 [W48×H48×L65mm]	
Operation	Multi time range, Power on delay function	Multi time range, Multi function		
Power supply	100 to 240VAC 50/60Hz / 24 to 240VDC, 12VDC(Optional)			
Input	START input	No-voltage input 		
	INHIBIT input	<ul style="list-style-type: none"> Impedance at shot-circuit : Max. 1kΩ Residual voltage at shot-circuit : Max. 0.5VDC Impedance at open circuit : Min. 100kΩ 		
	RESET input	—		
Control output	Contact Type	Time-limit 2c, Time-limit 1c+Instantaneous 1c by output operation mode.	Time-limit 2c	Time-limit 1c, Instantaneous 1c
	Contact Capacity	NO : 250VAC 3A resistive load NC : 250VAC 2A resistive load	250VAC 3A resistive load	NO : 250VAC 3A resistive load NC : 250VAC 2A resistive load
Repeat error	Max. ±0.3%			
Set error	Max. ±5% ±0.05sec			
Voltage error	Max. ±0.5%			
Temperature error	Max. ±2%			

ANALOG TIMER






Type	Star delta timer	OFF Delay timer	Single range timer		
Model	AT8SDN	AT8PSN AT8PMN	ATE-sec, min, hour	ATE1-sec, min, hour	ATE2-sec, min, hour
Appearances & Dimensions	 [W48×H48×L65mm]	 [W48×H48×L79mm]	 [W48×H48×L79mm]	 [W48×H48×L79mm]	 [W48×H48×L79mm]
Operation mode	STAR(λ)-DELTA(Δ)	POWER OFF DELAY	POWER ON DELAY		
Power supply	100 to 240VAC 50/60Hz 24 to 240VDC, 12VDC(Optional)	100 to 120VAC 50/60Hz, 200 to 240VAC 50/60Hz 100/110VDC, 48VDC, 24VDC	110VAC 50/60Hz 220VAC 50/60Hz ※24VDC(Optional)		
Control output	Contact Type	λ Contact:SPST(1a) Δ Contact:SPST(1a)	Time-limit:SPDT(1c), Instantaneous: SPST(1a)	Time-limit:DPDT(2c)	Time-limit:SPDT(1c), Instantaneous: SPDT(1c)
	Contact Capacity	250VAC 3A resistive load			
Repeat error	Max. ±0.3%				
Set error	Max. ±5% ±0.05sec		Max. ±5% ±0.05sec(Power Start type)		
Voltage error	Max. ±0.5%				
Temperature error	Max. ±2%				

SELECTION GUIDE

WEEKLY TIMER

Model	LE7D-2	
Appearances & Dimensions	 <p>[W72×H72×L60mm]</p>	
Power supply	100 to 240VAC 50/60Hz	
Output	Type	SPDT(Single Pole Double Contact)
	Capacity	250VAC 5A resistive load
	Number of output	Independent 2 device(1c×2)
External input	Short or open by switch or relay	
Programmable step	Programmable 24steps	
Operation mode	ON/OFF mode, cycle mode, pulse mode	
Setting range	Enable to set Minute as 1 week cycle	
Mounting	Front panel, surface board, DIN rail	
Time deviation	±15sec/month(Ambient temperature: 25℃) (±4sec/week)	
Memory retention	5years(at 25℃), 10years:Under 50% of power failure(at 25℃)	

TEMPERATURE CONTROLLER(DUAL PID AUTO TUNING TYPE)

Model	TZN4S	TZN4W	TZN4H	TZN4M	TZN4L
Appearances & Dimensions	 [W48×H48×L90mm]	 [W96×H48×L90mm]	 [W48×H96×L90mm]	 [W72×H72×L85mm]	 [W96×H96×L90mm]
Power supply	100 to 240VAC 50/60Hz				
Display type	7Segment LED display [Processing value(PV):Red, setting value(SV):Green]				
Input	Thermocouple K(CA), J(IC), R(PR), E(CR), T(CC), S(PR), N(NN), W(TT)<Tolerance line resistance is max. 100Ω>				
	RTD DIN Pt100Ω, JIS Pt100Ω 3 wires type<Tolerance line resistance is max. 5Ω>				
	Analog Voltage:1 to 5VDC, 0 to 10VDC, Current:4 to 20mADC				
Output	Relay 250VAC 3A 1c				
	SSR 12VDC ±2V 30mA Max.				
	Current 4 to 20mADC(load : Max. 600Ω)				
	Transmission PV value : 4 to 20mADC(load : Max. 600Ω)				
	SUB EV1:Contact capacity 250VAC 1A 1a EV1, EV2:Contact capacity 250VAC 1A 1a				
Communication function	PV value, SV Setting				
Control type	ON/OFF, P, PI, PD, PIDF, PIDS				
Indicating accuracy	±0.3% based on SV or 3℃ Max.				
Setting method	Setting by front push buttons				
Hysteresis	Adjustable 1 to 100(0.1 to 100.0)℃				

*Upgraded on Jan. 2004:Communication function, auto-tuning function, Decimal point(Dot) setting, Lamp function (setting ascent/descent function), Setting ALARM hysteresis function, Setting ON/OFF hysteresis function.