

Autonics

TIMER

LE3S SERIES

INSTRUCTION MANUAL



Thank you very much for selecting Autonics products.
For your safety, please read the following before using.

■ Safety Considerations

- ※Please keep these instructions and review them before using this unit.
- ※Please observe the cautions that follow;
- ⚠ Warning** Serious injury may result if instructions are not followed.
- ⚠ Caution** Product may be damaged, or injury may result if instructions are not followed.
- ※The following is an explanation of the symbols used in the operation manual.
- ⚠ Caution:**Injury or danger may occur under special conditions.

⚠ Warning

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.** (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)
Failure to follow this instruction may result in fire, personal injury, or economic loss.
- Install on a device panel to use.**
Failure to follow this instruction may result in electric shock or fire.
- Do not connect, repair, or inspect the unit while connected to a power source.**
Failure to follow this instruction may result in electric shock or fire.
- Check 'Connections' before wiring.**
Failure to follow this instruction may result in fire.
- Do not disassemble or modify the unit.**
Failure to follow this instruction may result in electric shock or fire.

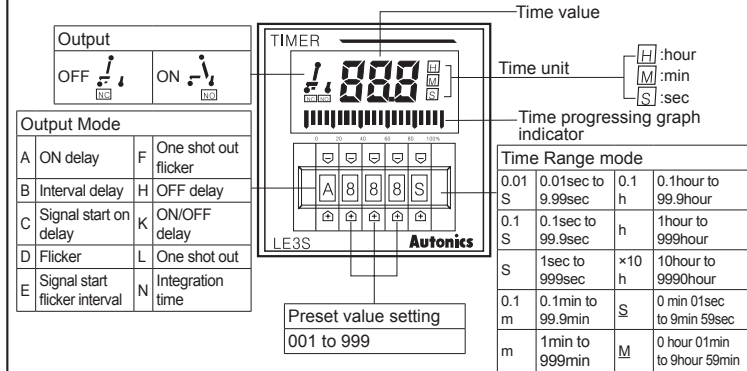
⚠ Caution

- Use the unit within the rated specifications.**
Failure to follow this instruction may result in fire or product damage.
- Use dry cloth to clean the unit, and do not use water or organic solvent.**
Failure to follow this instruction may result in electric shock or fire.
- Do not use the unit in the place where flammable/explosive/corrosive gas, humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.**
Failure to follow this instruction may result in fire or explosion.
- Keep metal chip, dust, and wire residue from flowing into the unit.**
Failure to follow this instruction may result in fire or product damage.

■ Ordering Information

L	E	3	S	No Mark	Time-limit 1c(SPDT)
				A	Time-limit 2c(DPDT)
				B	Time-limit 1c, Instantaneous-contact 1c
				S	DIN Size W48×H48mm
				3	999(Digit)
				E	Timer
				L	LCD Display

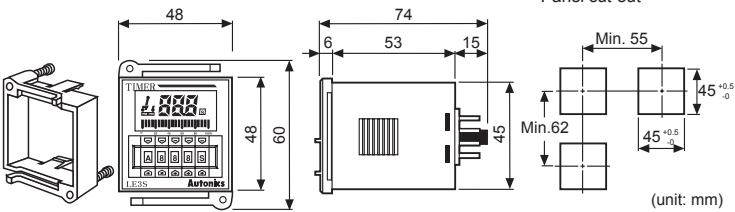
■ Front Panel Identification



※The above specifications are subject to change and some models may be discontinued without notice.

※Be sure to follow cautions written in the instruction manual and the technical descriptions (catalog, homepage).

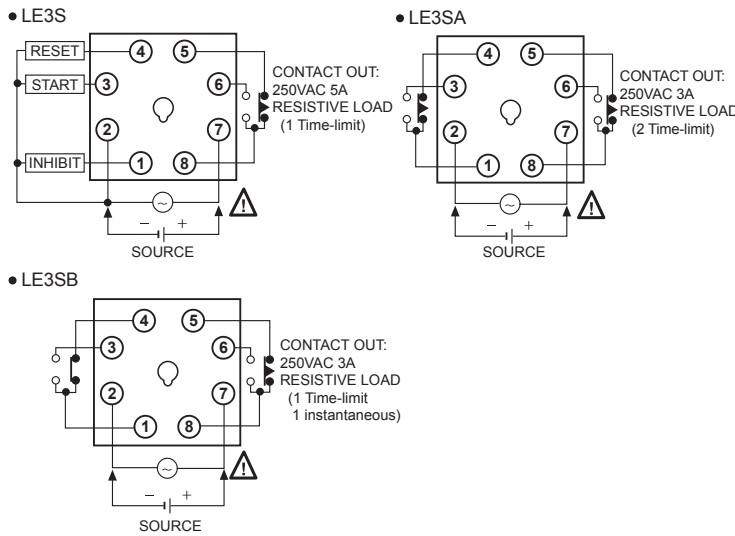
■ Dimensions



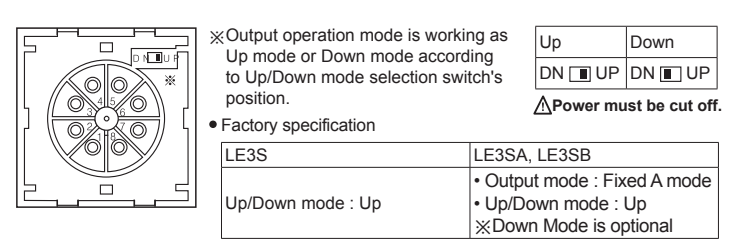
■ Specifications

Model		LE3S	LE3SA	LE3SB
Function		Multi operating, Multi time		
Power supply		24-240VAC~ 50/60Hz, 24-240VDC=		
Display method		LCD Display		
Allowable voltage range		90 to 110% of rated voltage		
Power consumption		Max. 2.5VA (240VAC~ 50/60Hz) Max. 1W(240VDC=)	Max. 3.3VA(240VAC~ 50/60Hz) Max. 1.5W(240VDC=)	
Return time		Max. 0.2sec	Max. 0.1sec	
Min. input signal	START input	Min. 20ms	—	
	INHIBIT input			
	RESET input			
Input	START input	• No-voltage input Shot-circuit : Impedance(Max. 1kΩ), Residual voltage : Max. 0.5VDC Open-circuit : Impedance(Min. 100kΩ)	—	
	INHIBIT input			
	RESET input			
Control output	Contact	Type	Time-limit : SPDT(1c)	Time-limit : DPDT(2c)
		Capacity	250VAC~ 5A resistive load	250VAC~ 3A resistive load
Output mode		A, B, C, D, E, F, H, K, L, N		
Environ-ment		Ambient temperature : -10 to 55°C, Storage: -25 to 65°C (at non-freezing status) Ambient humidity : 35 ~ 85%RH		
Deviation		Power Start:		
Setting error		Max. ±0.01% ±0.05sec		
Voltage error		Signal Start: Max. ±0.005% ±0.03sec		
Temperature error				
Insulation resistance		Min. 100MΩ(at 500VDC)		
Dielectric strength		2000VAC 50/60Hz for 1 minute		
Noise strength		±2kV the square wave noise(pulse width:1μs) by the noise simulator		
Vibra-tion	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1hour		
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes		
Shock	Mechanical	300m/s²(Approx. 30G) in X, Y, Z directions for 3 times		
	Malfunction	100m/s²(Approx. 10G) in X, Y, Z directions for 3 times		
Relay life cycle	Mechanical	Min. 10,000,000 times		
	Electrical	Min. 100,000 times (250VAC 5A resistive load)	Min. 100,000 times(250VAC 3A resistive load)	
Weight		Approx. 100g		
		Approx. 105g		

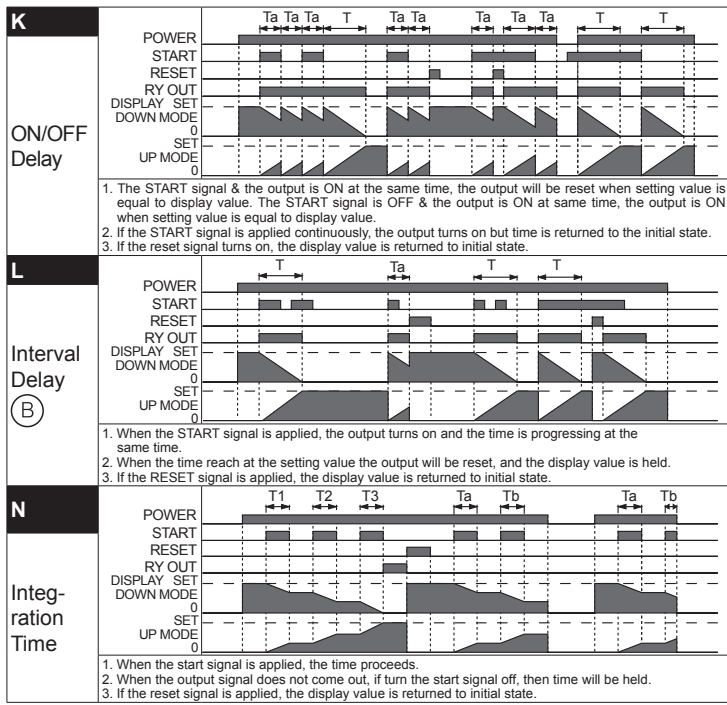
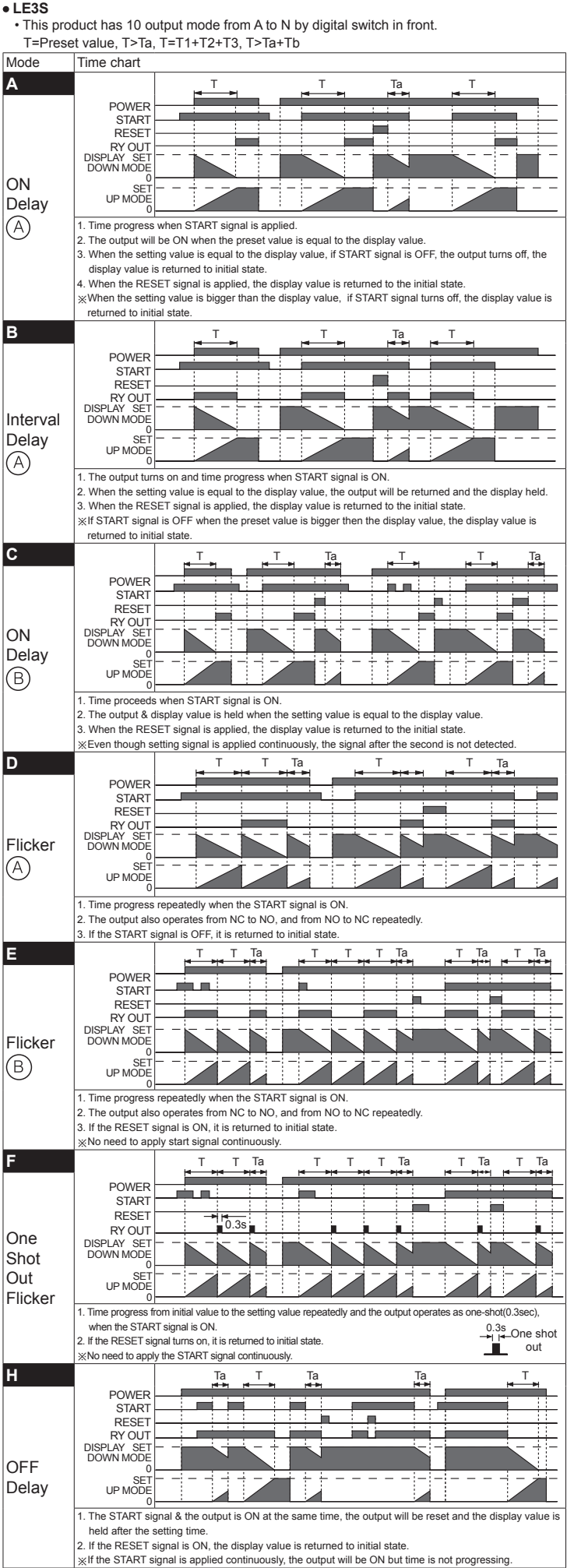
■ Connections



■ Up/Down Mode

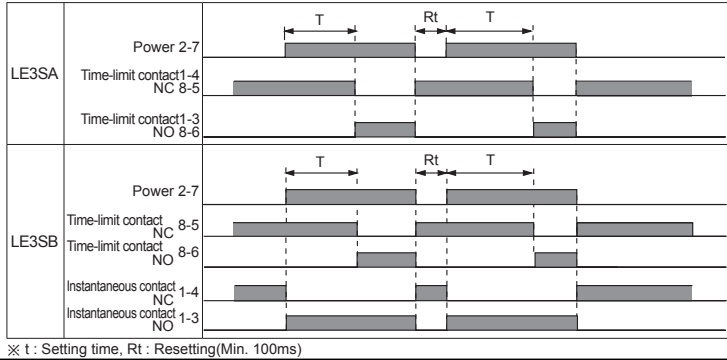


■ Output Operation Mode



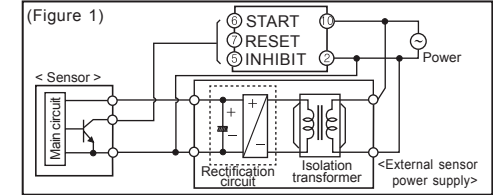
※Initial state : The output is OFF, the display value is "0", (At Up mode)
※When set the time setting as 000, control output does not come out.
※When use D, E, F output mode:If set the fine short, it may not work due to response time of relay contact.
Please set the min. setting time over 100ms.

• LE3SA, LE3SB



■ Cautions during Use

- Follow instructions in 'Cautions during Use'. Otherwise, It may cause unexpected accidents.
- When supplying or turning off the power, use a switch or etc. to avoid chattering.
- Install a power switch or circuit breaker in the easily accessible place for supplying or disconnecting the power.
- In order to block peripheral current, use isolation transformer which of secondary part is not grounded as (Figure 1) to supply power to the external input device.



- Do not connect two or more timers with only one input contact or transistor simultaneously.
- Keep away from high voltage lines or power lines to prevent inductive noise.
In case installing power line and input signal line closely, use line filter or varistor at power line and shielded wire at input signal line.
Do not use near the equipment which generates strong magnetic force or high frequency noise.
- Change setting time, time range, operation mode or etc. after turning off the power of the timer.
- This unit may be used in the following environments.
 - ①Indoors (in the environment condition rated in 'Specifications')
 - ②Altitude max. 2,000m
 - ③Pollution degree 2
 - ④Installation category II

■ Main Products

- Photoelectric Sensors
- Fiber Optic Sensors
- Door Sensors
- Door Side Sensors
- Area Sensors
- Proximity Sensors
- Pressure Sensors
- Rotary Encoders
- Connector/Socket
- Switching Mode Power Supplies
- Control Switches/Lamps/Buzzers
- I/O Terminal Blocks & Cables
- Stepper Motors/Drivers/Motion Controllers
- Graphic/Logic Panels
- Field Network Devices
- Laser Marking System (Fiber, Co., Nd: YAG)
- Laser Welding/Cutting System
- Temperature Controllers
- Temperature/Humidity Transducers
- SSRs/Power Controllers
- Counters
- Timers
- Panel Meters
- Tachometers/Pulse (Rate) Meters
- Display Units
- Sensor Controllers



☎ :051-57133855-6
☎ :09014284236
WWW.ARCOKAIA.COM

Autonics Corporation
http://www.autonics.com

■ HEADQUARTERS:
18, Bansong-ro 513beon-gil, Haeundae-gu,
Busan, South Korea, 48002
TEL: 82-51-519-3232
■ E-mail: sales@autonics.com