Autonics

TIMER LE3S SERIES INSTRUCTION

€ 691° us



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

1. 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.

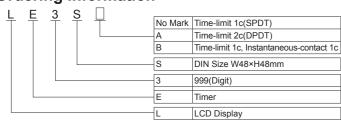
- 2. Install on a device panel to use.
- Failure to follow this instruction may result in electric shock or fire.
- 3. Do not connect, repair, or inspect the unit while connected to a power source. Failure to follow this instruction may result in electric shock or fire.
- 4. Check 'Connections' before wiring.
- Failure to follow this instruction may result in fire.
- 5. Do not disassemble or modify the unit.

Failure to follow this instruction may result in electric shock or fire.

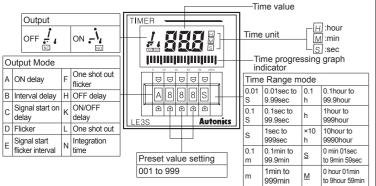
△ Caution

- 1. Use the unit within the rated specifications.
- Failure to follow this instruction may result in fire or product damage.
- 2. 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.
- 3. 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
- 4. 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



Front Panel Identification



- XThe above specifications are subject to change and some models may be discontinued without notice.
- **X**Be sure to follow cautions written in the instruction manual and the technical descriptions (catalog, homepage)

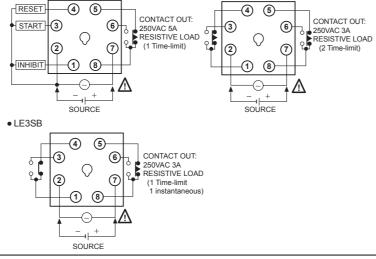
Dimensions Panel cut-out 53 45 +0.5

Specifications

Model			LE3S	LE3SA	LE3SB
Function			Multi operating, Multi time	MULTI time, Power ON	Delay
Power supply			24-240VAC~ 50/60Hz, 24-240VDC		
Display method			LCD Display		
Allowable voltage range		je	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.	START input		Min. 20ms	_	
input	INHIBIT input				
signal	RESET input				
Input	START input		No-voltage input Shot-circuit :	_	
	INHIBIT input		Impedance(Max. 1kΩ), Residual voltage : Max. 0.5VDC		
	RESET input		Open-circuit : Impedance(Min. 100kΩ)		
Control	Contact	Туре	Time-limit : SPDT(1c)	Time-limit : DPDT(2c)	Time-limit : SPDT(1c instantaneous: SPDT(1c
	-		250VAC~ 5A resistive load	250VAC∼ 3A resistive load	
Output mode			A, B, C, D, E, F, H, K, L, N	A	
-ment Ambient humidity			-10 to 55°C, Storage: -25 to 65°C (at non-freezing status)		
		t humidity	35 ~ 85%RH		
Deviation			Power Start:		
Setting error			Max. ±0.01% ±0.05sec Max. :±0.01% ±0.05sec		
Voltage error			Signal Start: Max. ±0.005% ±0.03sec	0.03660	
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	Mechanical		Min. 10.000.000 times		
life cycle	Electrical		Min. 100,000 times (250VAC 5A resistive load)	Min. 100.000 times(250VAC 3A resistive load)	
Weight			Approx. 100q	Approx. 105g	

Connections

• LE3S



• LE3SA

Up/Down Mode



- Output operation mode is working as Up mode or Down mode according to Un/Down mode selection switch's position.
 - DN TUP DN TUP ∧Power must be cut off.

One

Shot

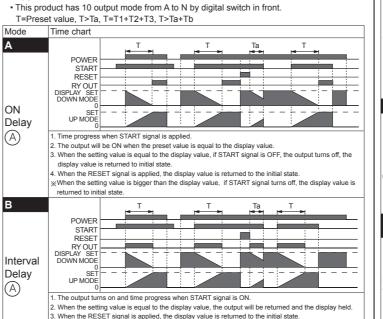
Out

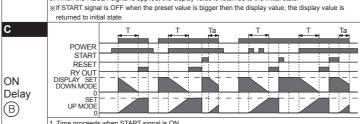
Factory specification

LE3S	LE3SA, LE3SB
	Output mode : Fixed A mode
Up/Down mode : Up	Up/Down mode : Up

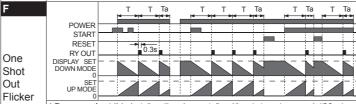
Output Operation Mode

(unit: mm)

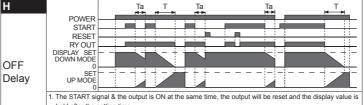




- Time proceeds when START signal is ON.
- The output & display value is held when the setting value is equal to the display value
- 3. When the RESET signal is applied, the display value is returned to the initial state.
- Even though setting signal is applied continuously, the signal after the second is not de START Flicker (A)
 - tedly when the START signal is ON
 - . The output also operates from NC to NO, and from NO to NC repeatedly
- 3. If the START signal is OFF, it is returned to initial state START RESET RY OUT Flicker $^{\left(\mathbb{B}\right) }$ UP MODE ime progress repeatedly when the START signal is ON
 - The output also operates from NC to NO, and from NO to NC repeated
 - If the RESET signal is ON, it is returned to initial state
 - No need to apply start signal continuously



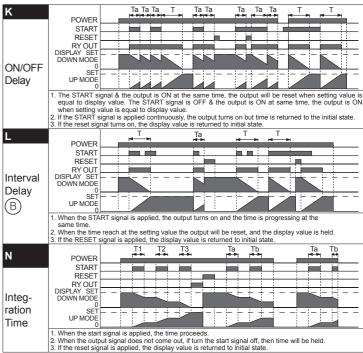
Time progress from initial value to the setting value repeatedly and the output operates as one-shot(0.3sec) when the START signal is ON. 0.3s One sho . If the RESET signal turns on, it is returned to initial state out No need to apply the START signal continuously



held after the setting time

2. If the RESET signal is ON, the display value is returned to initial state

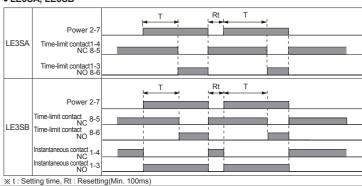
If the START signal is applied continuously, the output will be ON but time is not progressing



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.

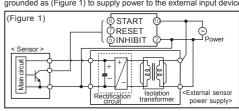
When use D, E, F output mode: If set the fine short, it may not work due to response time of relay contact

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. i. 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.

■ Temperature Controllers

①Indoors (in the environment condition rated in 'Specifications')

②Altitude max. 2.000m

③Pollution degree 2 (4) Installation category II

■ Main Products

■ Fiber Optic Sensors

■ Counters

■ Door Side Sensors

Area Sensors ■ Panel Meters ■ Tachometers/Pulse (Rate) Meters

■ Proximity Sensors ■ Pressure Sensors

otary Encoders onnector/Sockets

■ Display Units
■ Sensor Controllers witching Mode Power Supplies

■ Control Switches/Lamps/Buzzers ■ I/O Terminal Blocks & Cables

pper Motors/Drive raphic/Logic Panels

■ Laser Welding/Cutting System

■ Graphic/Logic Panels
 ■ Field Network Devices
 ■ Laser Marking System (Fiber, Co₂, Nd: YAG)

■ HEADQUARTERS

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