

Compact LCD Timer

DIN W48 × H24mm, Indication only, LCD Timer

■ Features

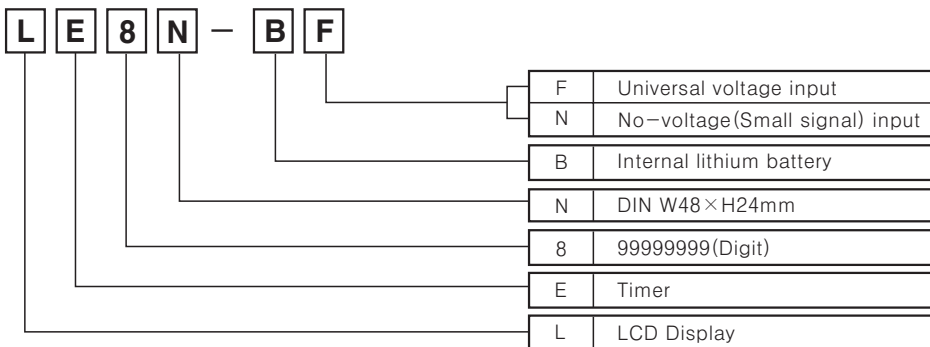
- Upgraded version of LE7N series
- Compact size indicator
- Internal lithium battery
- Screw Terminal type (Terminal protection cover)
- LCD Display
- Built-in Microprocessor
- IP66 rated (Front panel only)



⚠ Please read "Caution for your safety" in operation manual before using.



■ Ordering information



■ Specifications

Series		LE8N-BN	LE8N-BF
Digit		8digits	
Display		LCD Zero Blanking type (Height : 8.7mm)	
Operation method		Count up mode	
Power supply		Internal lithium battery	
Input type		No-voltage input	Universal voltage input
Start input		• Impedance at short-circuit : 10kΩ (ON), residual voltage : Max. 0.5V • Impedance at open-circuit : 500kΩ (OFF)	High : 24-240VAC / 6-240VDC Low : 0-2VAC / 0-2.4VDC
RESET input		No-voltage input	
Min.signal width of RESET		Min. 20ms	
Time range (TS1)		(★1) 9999.59.59 (h.m.s), 99999.59.9 (h.m), 999999.59 (h.m)	
Time range (TS2)		(★1) 9999H59.9 (h.m), 99999H59 (h.m), 999999H.9 (h)	
Time error		±0.01% (Repeat error, Time error, Temperature error)	
Battery life cycle		Approx. over 10 years (at 20℃)	
External switch		SW1 (Front reset key Lock switch), SW2 (Time range selection switch)	
Insulation resistance		Min. 100MΩ (at 500VDC mega)	
Dielectric strength		(★2) 2000VAC 60Hz for 1 minute	
Vibra- tion	Mechanical	0.75mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 1 hour	
	Malfunction	0.3mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 10 minutes	
Shock	Mechanical	300m/s ² (Approx. 30G) in X, Y, Z directions for 3 times	
	Malfunction	100m/s ² (Approx. 10G) in X, Y, Z directions for 3 times	
Ambient Temperature		-10 ~ +55℃ (at non-freezing status)	
Storage Temperature		-25 ~ +65℃ (at non-freezing status)	
Ambient humidity		35 ~ 85%RH	
Approval		 	
Unit weight		Approx. 58g	

(★1) Select TS1, TS2 using inner jump pin (JP1).

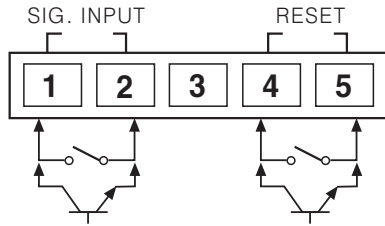
(★2) No-voltage input: Between all terminals and case, Universal voltage input: Between input terminal and reset input terminal, all terminals and case

- (A) Counter
- (B) Timer
- (C) Temp. controller
- (D) Power controller
- (E) Panel meter
- (F) Tacho/Speed/Pulse meter
- (G) Display unit
- (H) Sensor controller
- (I) Switching power supply
- (J) Proximity sensor
- (K) Photo electric sensor
- (L) Pressure sensor
- (M) Rotary encoder
- (N) Stepping motor & Driver & Controller
- (O) Graphic panel
- (P) Field network device
- (Q) Production stoppage models & replacement

LE8N SERIES

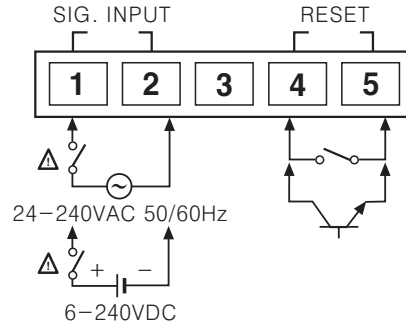
■ Connections

● No-voltage input



- ※ Use reliable contacts enough to flow $5\mu\text{A}$ of current.
- ※ Terminal 2 and 5 are connected inside. (Non-isolation)

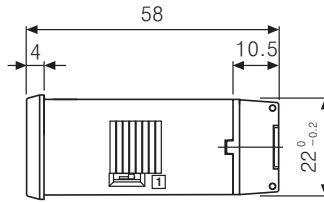
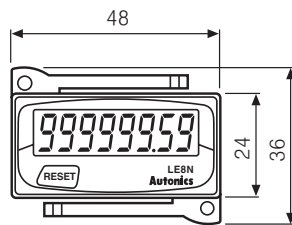
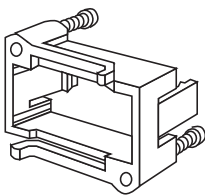
● Universal voltage input



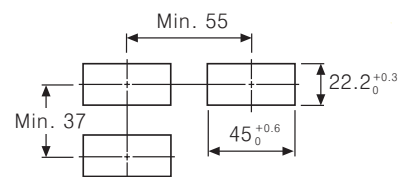
- ※ Terminal 1, 2 and 4, 5 are isolated.

■ Dimensions

● Bracket



● Panel cut-out

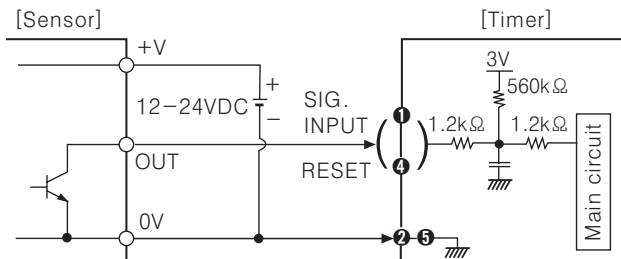


(Unit:mm)

■ Input connections

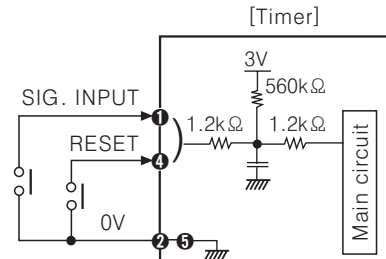
○ No-voltage input (Standard sensor: NPN open type sensor)

● Solid-state input



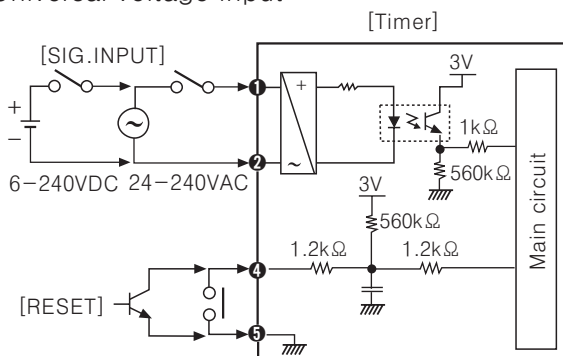
- ※ When power is applied to terminal No ① and ④, input terminal circuit can be broken and a malfunction can occur. (NPN output, PNP output, PNP open collector output type sensor cannot be used.)
- ※ ② and ⑤ are connected inside.

● Contact input



- ※ Please use reliable contacts enough to flow 3VDC $5\mu\text{A}$ of current.

○ Universal voltage input

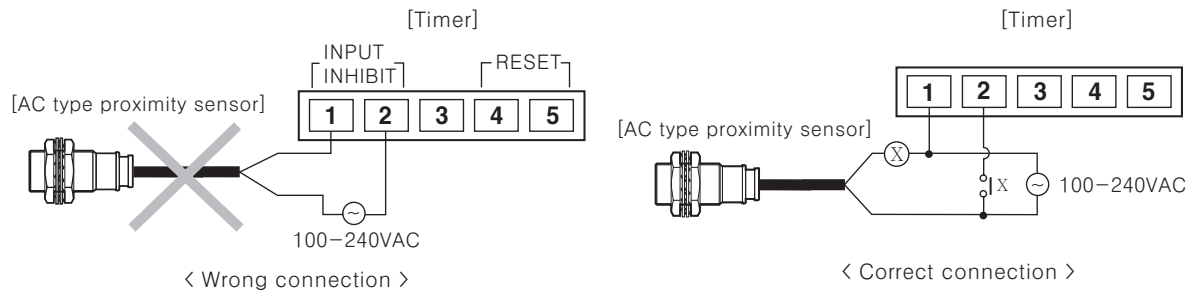


- ※ AC type proximity sensor cannot be used as the source of count input signals.
- ※ Input terminal ①, ② and Reset terminal ④, ⑤ are insulated inside.
- ※ It is not possible to reset with AC power or DC power.
- ※ When relay contact is used as the source of RESET signal, please use reliable contacts enough to flow 3VDC $5\mu\text{A}$ of current.

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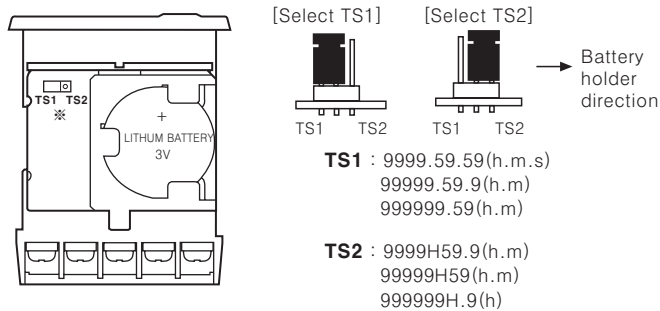
◎Input from AC type proximity sensor

Please add input relay as shown below to prevent malfunction caused by current leakage of the proximity sensor.



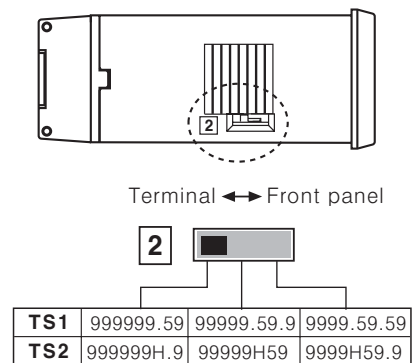
■Time specification(TS1, TS2) and time range

●Selection of time specification(TS1, TS2)

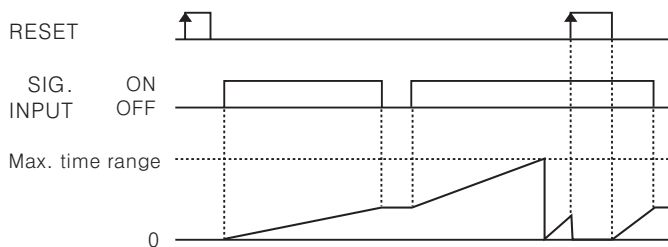


※Please supply RESET signal(Front or external RESET terminal) after change time range during the operation.

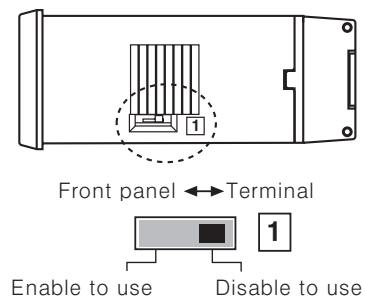
●Selection of time range



■Time operation

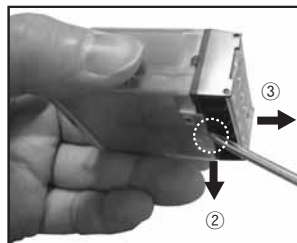


■Enable / Disable front reset key



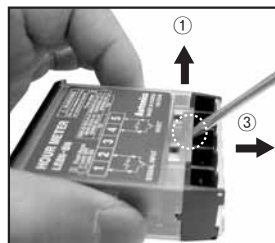
■Case detachment and battery replacement

●Case detachment

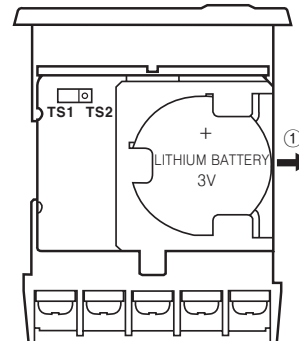


※Hold up Lock part toward ①, ② of the product with the tool and pull toward ③, the case is detached.

⚠ Please be careful of the injury caused by tools.



●Battery replacement



- 1) Detach the case.
 - 2) Push the battery and detach toward ①.
 - 3) Insert new battery with correct alignment of polarity pushing toward opposite of ①.
- ※Battery is sold separately.
※Do not burn up or disassemble the lithium battery.

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