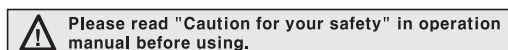


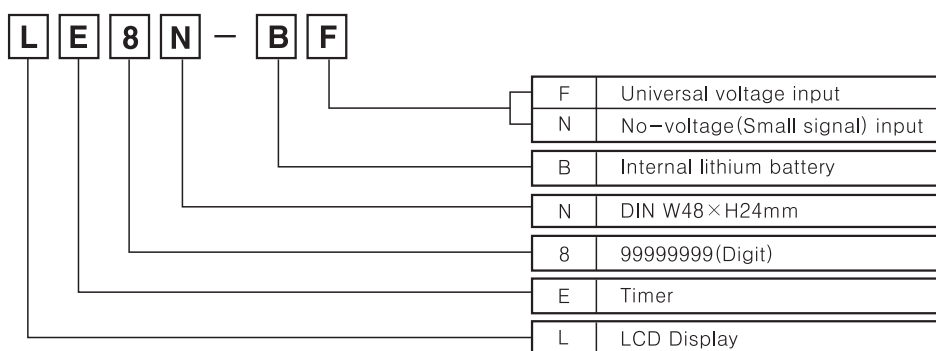
DIN W48×H24mm, Indication only, LCD Timer

■ Features

- **Upgraded version of LE7N series**
- Small size and count up mode only
- Internal lithium battery
- Screw Terminal type (Terminal protection cover)
- LCD Display
- Built-in Microprocessor
- Protection structure IP66



■ 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		Residual voltage at short-circuit : Max. 0.5V	Start : 24-240VAC / 6-24VDC Hold : 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		Over 10 years (at 20℃)	
External switch		SW1 (Front reset key for Lock) , SW2 (Selectable time switch)	
Insulation resistance		Min. 100MΩ (at 500VDC)	
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

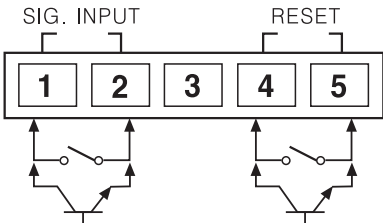
(N)
Stepping
motor &
Driver &
Controller

(O)
Graphic
panel

(P)
Production
stoppage
models &
replacement

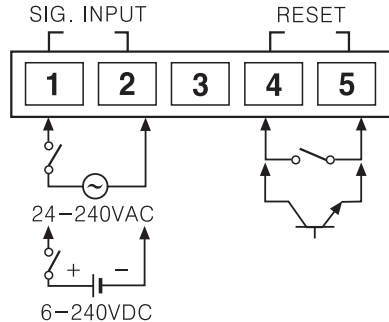
■ Connections

●No-voltage input



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

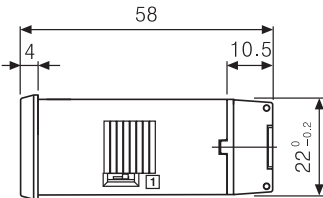
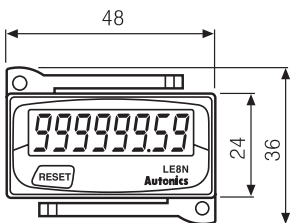
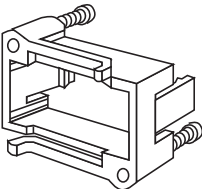
●Universal voltage input



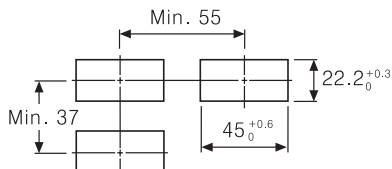
※Terminal 1, 2 and 4, 5 are isolated.

■ Dimensions

- Bracket



- Panel cut-out

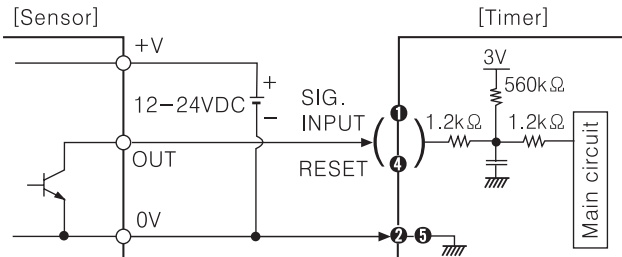


(Unit:mm)

Input connections

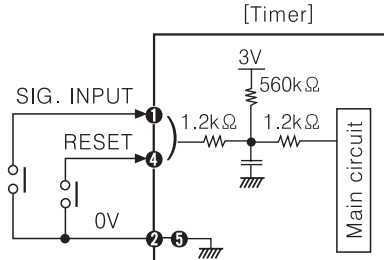
◎No-voltage input (Standard sensor: NPN open type sensor)

- Solid-state input



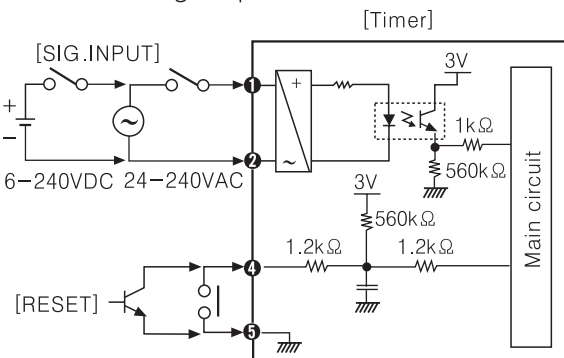
- ※ When applying power to terminal No ❶ and ❷, input terminal circuit can be broken and a malfunction can occur.
(NPN output, PNP output, PNP open collector output type sensor cannot be used.)
- ※ ❸ and ❹ are connected at inside.

- Contact input



※Please use reliable contacts enough to follow
3VDC 5μA of current.

©Universal voltage input

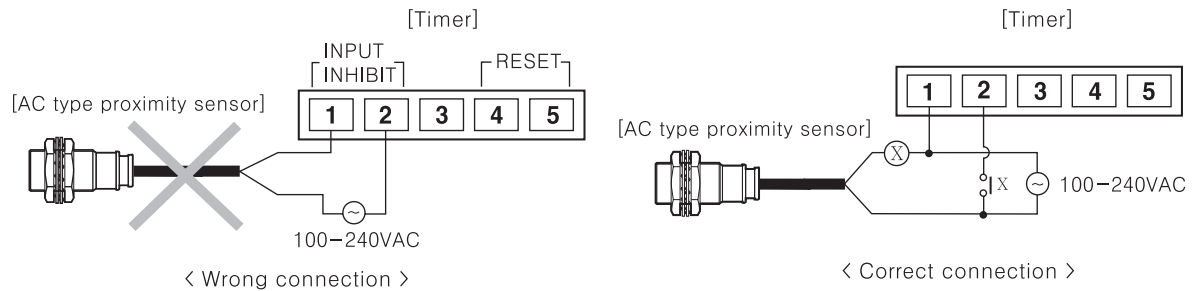


- ※AC type proximity sensor cannot be used as the source of count input signals.
- ※Input terminal **①**, **②** and Reset terminal **④**, **⑤** are insulated inside.
- ※It is not possible to reset with AC power or DC power.
- ※When relay contact is used as the source of Reset signal, please use reliable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

LCD Miniature Timer

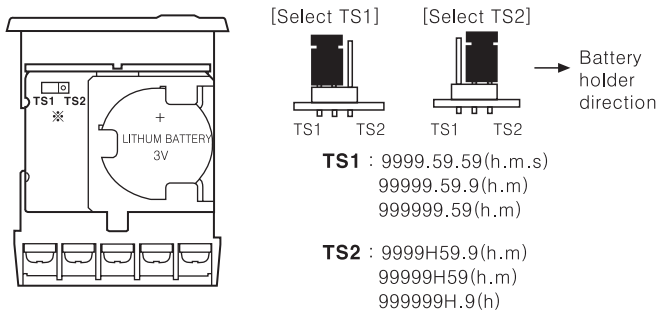
◎Using of AC type proximity sensor

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



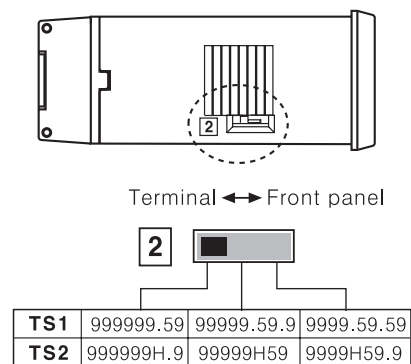
■ Selection of time specification (TS1, TS2) and time range

● Selection of time specification (TS1, TS2)

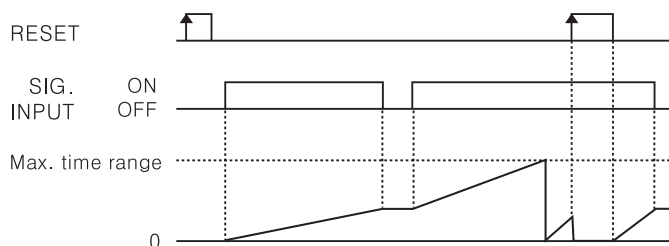


※Please supply Reset signal(Front or external reset terminal) after change time range during the operation.

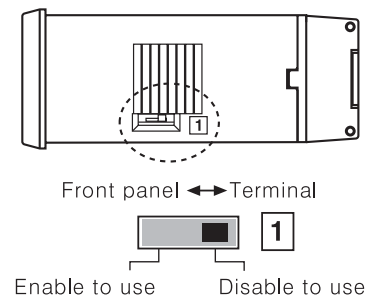
● Selection of time range



■ Time operation

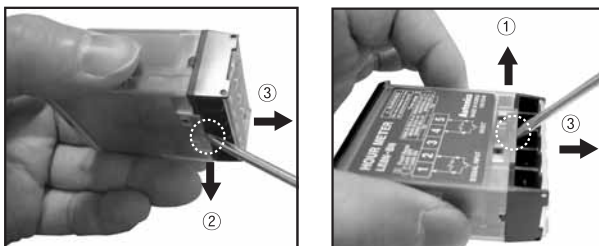


■ Selection of using front reset key



■ Case detachment and battery replacement

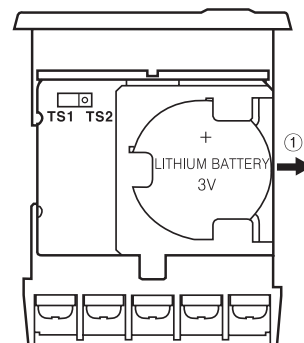
● Case detachment



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

⚠ Please be careful to use with tools, it may cause injury.

● Battery replacement



- 1) Detach the case.
- 2) Push the battery and detach toward ①.
- 3) Insert the battery with correct alignment of polarity pushing toward opposite of ①.

※Battery is optional.

※Do not burn up or disassemble the lithium battery.

(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)
Production
stoppage
models &
replacement



Electronics Katrangi Trading