

# LA8N SERIES

## DIN W48 × H24mm, Indication only, LCD counter

### Features

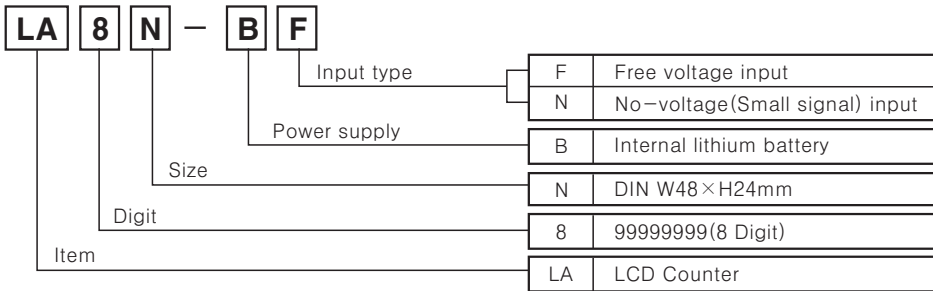
- **Upgraded version of LA7N series**
- Small size and count up mode only
- Internal lithium battery
- Signal input
  - No-voltage input ⇨ Please use reliable contacts enough to flow 3VDC 5 $\mu$ A of current.
  - Free voltage input ⇨ "H" : 6–240VDC, 24–240VAC  
"L" : 0–2.4VDC, 0–2VAC
- Screw terminal type (Terminal protection cover)
- LCD display
- Built-in microprocessor
- Protection structure IP66 (Front panel only)



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



### Ordering information



### Specifications

Series	LA8N-BN	LA8N-BF
Digit	8 Digits	
Display	LCD zero blanking type (Height : 8.7mm)	
Operation method	Count up mode	
Power supply	Internal lithium battery	
Input type	No-voltage input	Free voltage input
Counting speed	Selectable 1cps / 30cps / 1kcps	20cps fixed
Count input	<ul style="list-style-type: none"> <li>• Residual voltage : Max. 0.5VDC</li> <li>• Impedance at short-circuit : 10k<math>\Omega</math></li> <li>• Impedance at open-circuit : 750k<math>\Omega</math></li> </ul>	High : 24–240VAC / 6–240VDC Low : 0–2VAC / 0–2.4VDC
RESET input	No-voltage input	
Min. signal width of RESET	Min. 20ms	
Battery life cycle	Over 7 years (Approx. 20 $^{\circ}$ C)	
External switch	SW1(★1), SW2(★2)	SW1(★1)
Insulation resistance	Min. 100M $\Omega$ (at 500VDC megger)	
Dielectric strength	(★3) 2000VAC 60Hz for 1 minute	
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1 hour
	Malfunction	0.3mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes
Shock	Mechanical	300m/s <sup>2</sup> (Approx. 30G) in X, Y, Z directions for 3 times
	Malfunction	100m/s <sup>2</sup> (Approx. 10G) in X, Y, Z directions for 3 times
Protection	IP66 (When using waterproof rubber for front panel)	
Ambient Temperature	–10 to 55 $^{\circ}$ C (at non-freezing status)	
Storage Temperature	–25 to 65 $^{\circ}$ C (at non-freezing status)	
Ambient humidity	35 to 85%RH	
Approval	CE cRUUS	
Unit weight	Approx. 58g	

※ (★1) SW1 is a switch for front RESET key setting.

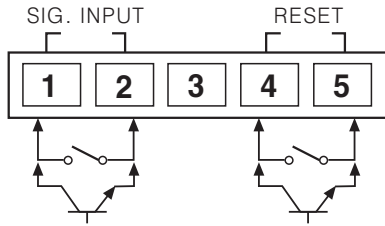
※ (★2) SW2 is a switch for counting speed setting.

※ (★3) No-voltage input : Between all terminals and case, Free voltage input : Between input terminal and reset input terminal, all terminals and case

# Compact LCD Counter

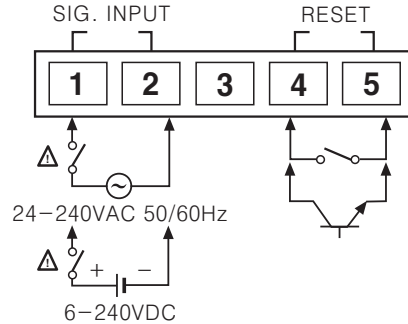
## Connections

### ●No-voltage input



- ※Use reliable contacts enough to flow 5μA of current.
- ※Terminal 2 and 5 are connected inside. (Non-isolation)

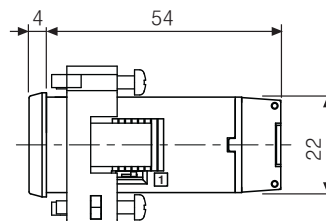
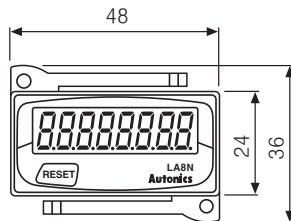
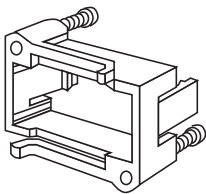
### ●Free voltage input



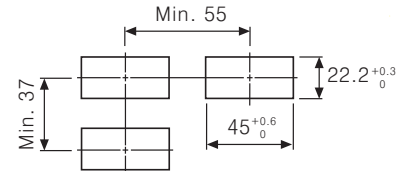
- ※Terminal 1, 2 and 4, 5 are isolated.

## Dimensions

### ●Bracket



### ●Panel cut-out

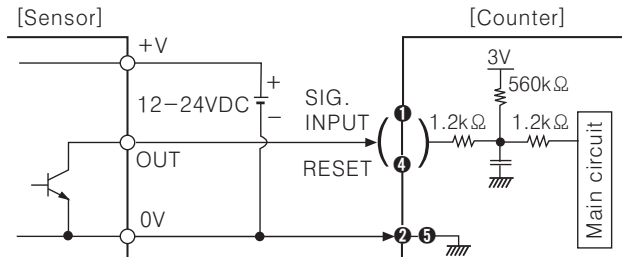


(Unit:mm)

## Input connections

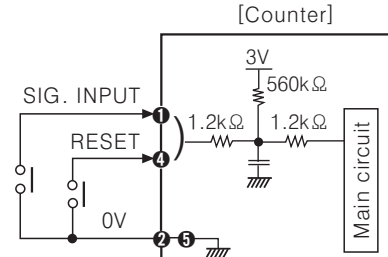
◎No-voltage input (Standard sensor: NPN open collector output type sensor)

### ●Solid-state input



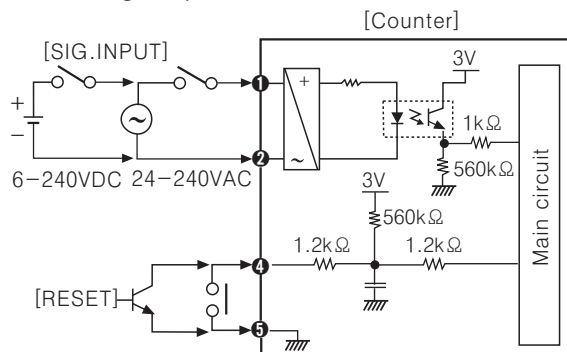
- ※When power is applied to terminal No ① and ④, input terminal circuit can be broken and a malfunction can occur. (NPN output, PNP output, PNP open collector output type sensor cannot be used.)
- ※② and ⑤ are connected inside.

### ●Contact input



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

◎Free 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.

(A) Photo electric sensor

(B) Fiber optic sensor

(C) Door/Area sensor

(D) Proximity sensor

(E) Pressure sensor

(F) Rotary encoder

(G) Connector/Socket

(H) Temp. controller

(I) SSR/Power controller

(J) Counter

(K) Timer

(L) Panel meter

(M) Tacho/Speed/Pulse meter

(N) Display unit

(O) Sensor controller

(P) Switching power supply

(Q) Stepping motor & Driver & Controller

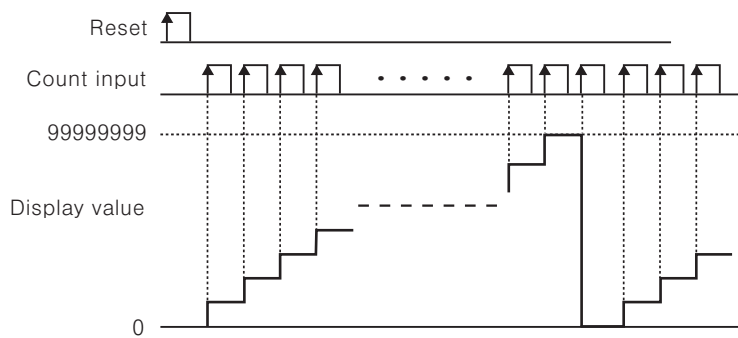
(R) Graphic/Logic panel

(S) Field network device

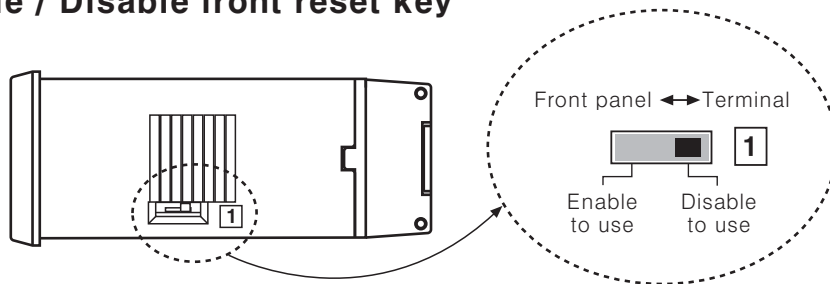
(T) Production stoppage models & replacement

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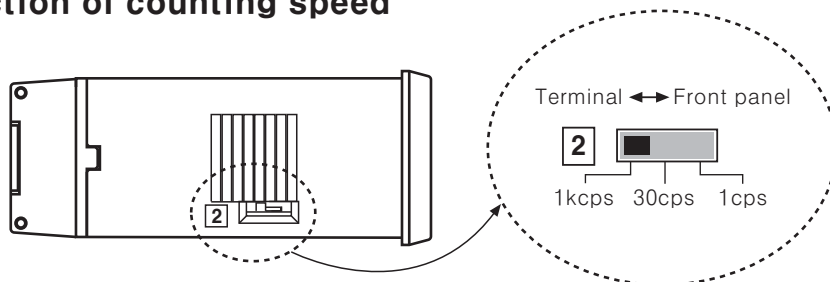
## Counter operation mode



## Enable / Disable front reset key



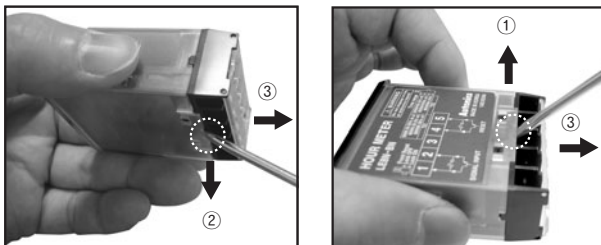
## Selection of counting speed



- ※ Please supply RESET signal (Front or external reset terminal) after changing counting speed during the operation.
- ※ There is no SW2 in LA8N-BF. (20cps fixed)

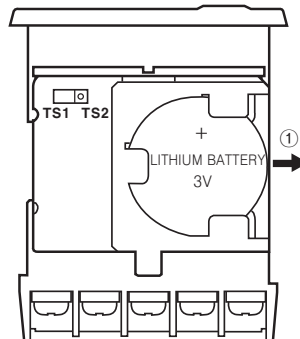
## Case detachment and battery replacement

### 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.