

# LA8N SERIES

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

### ■ Features

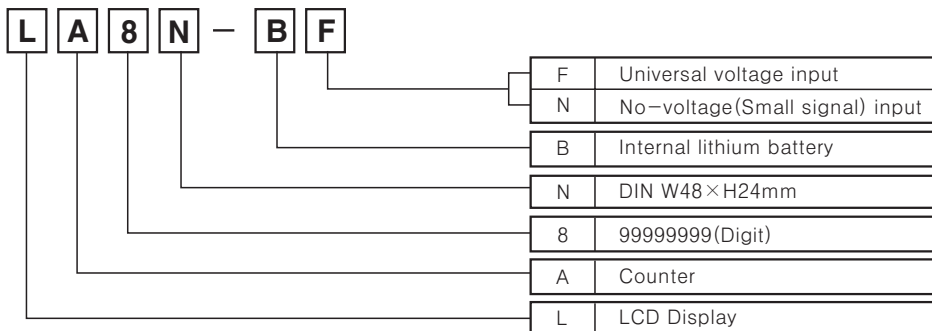
- **Upgraded version of LA7N series**
- Small size and count up mode only
- Internal lithium battery
- Signal input
  - No-voltage input ⇨ Please use reliable contacts enough to flow 3VDC 5μA of current.
  - Universal voltage input ⇨ "H" : 6-240VDC, 24-240VAC  
"L" : 0-2.4VDC, 0-2VAC
- Screw Terminal 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	LA8N-BN	LA8N-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
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 : 10kΩ</li> <li>• Impedance at open-circuit : 750kΩ</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°C)	
External switch	SW1(★1), SW2(★2)	SW1(★1)
Insulation resistance	Min. 100MΩ (at 500VDC mega)	
Dielectric strength	(★3) 2000VAC 60Hz for 1 minute	
Vibration	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 <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 ~ +55°C (at non-freezing status)	
Storage Temperature	-25 ~ +65°C (at non-freezing status)	
Ambient humidity	35 ~ 85%RH	
Approval		
Unit weight	Approx. 58g	

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

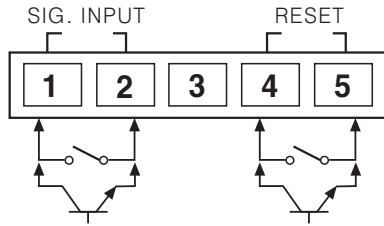
(★2) SW2 is a switch for counting speed setting.

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

# Compact LCD Counter

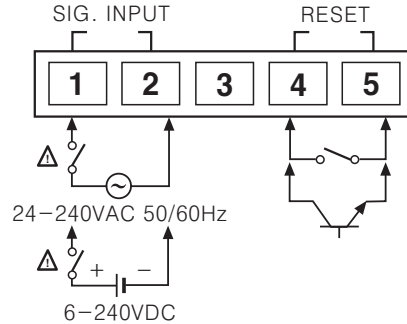
## Connections

### ●No-voltage input



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

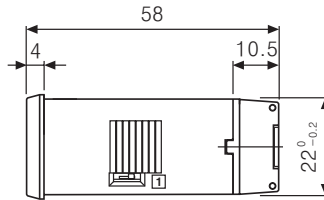
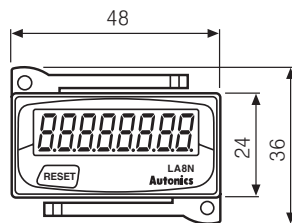
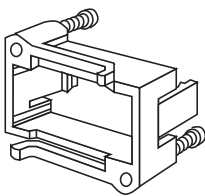
### ●Universal voltage input



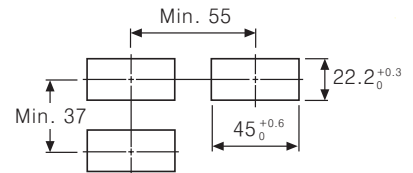
- ※Terminal 1, 2 and 4, 5 are isolated.

## Dimensions

### ●Bracket



### ●Panel cut-out

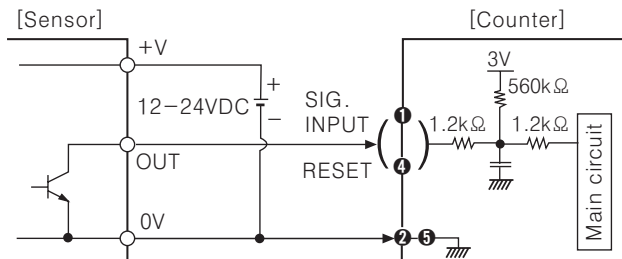


(Unit:mm)

## Input connections

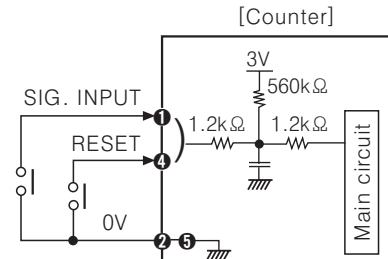
### ○No-voltage input (Standard sensor: NPN open type sensor)

#### ●Solid-state input



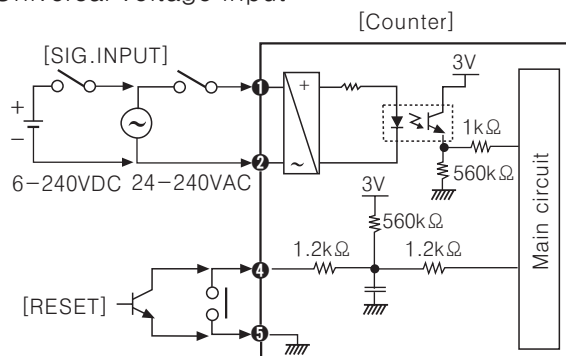
- ※When power is applied to terminal No ① and ④, input terminal circuit can be broken and a malfunction can occur. (NPN output, PNP output, PNP open collector output type sensor cannot be used.)
- ※② and ⑤ are connected inside.

#### ●Contact input



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

(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

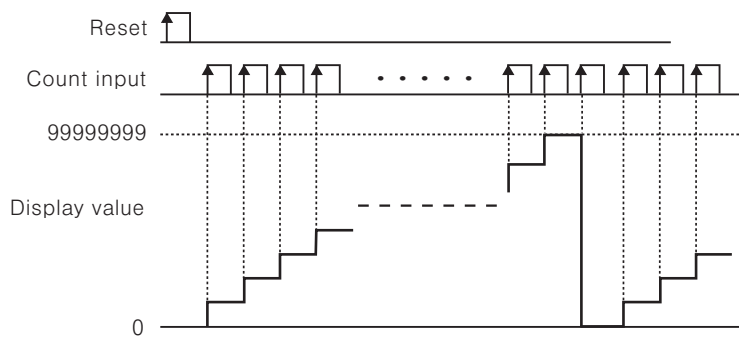
(O)  
Graphic  
panel

(P)  
Field  
network  
device

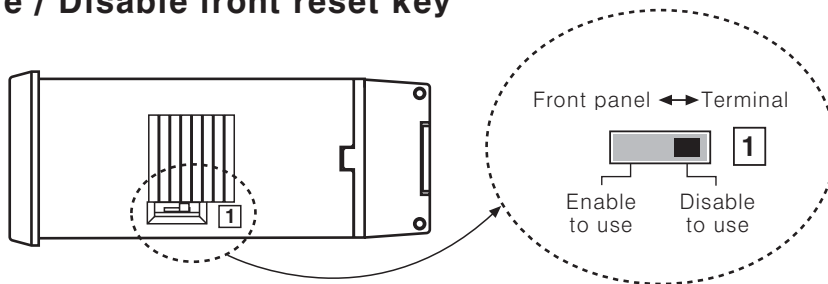
(Q)  
Production  
stoppage  
models &  
replacement

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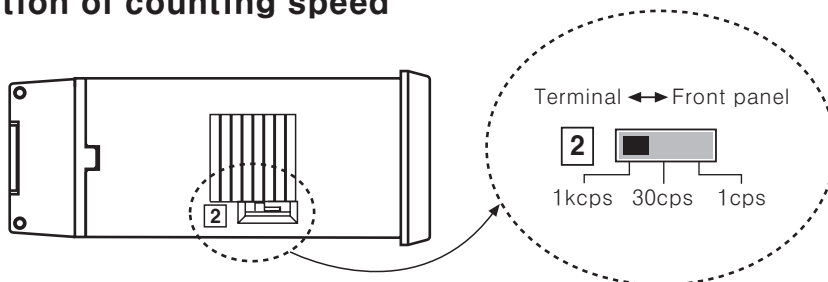
## Counter operation mode



## Enable / Disable front reset key



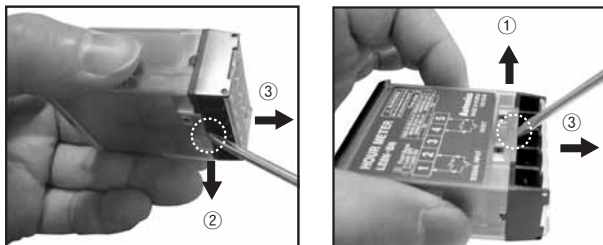
## Selection of counting speed



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

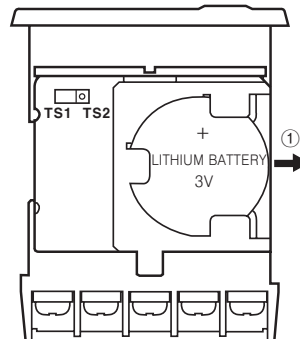
## Case detachment and battery replacement

### 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.