DIN size W48×H24mm, LCD Miniature, Totalizing Counter

▣Features

- ●Small size(DIN Size W48 × H24mm)
- ●Internal lithium battery
- ●Signal input
  - • No voltage input ☞ Please use reliable contacts enough to flow 5VDC 10㎂ current
  - • Universal voltage input ☞ "H" : 6−240VDC, 24−240VAC
    "L" : 0−2 VDC, 0−1.5VAC
- ●Screw terminal type
- ●Display by LCD
- ●Microprocessor controlled

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

CE

▣Ordering information

L A 7 N − 1 F R

R	Front Reset switch
	No Front Reset switch
F	Universal voltage input
	No voltage input
1	1cps
2	30cps
3	1kcps
4	7kcps
N	DIN size W48×H24mm
7	9999999(Digit)
A	Counter
L	LCD Display

▣Specifications

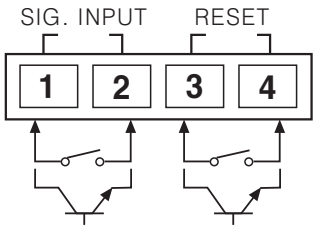
Series		LA7N SERIES(LCD Type)									
Digit		7									
Model		**LA7N-1**	**LA7N-2**	**LA7N-3**	**LA7N-4**	**LA7N-1R**	**LA7N-2R**	**LA7N-3R**	**LA7N-4R**	**LA7N-F**	**LA7N-FR**
Power supply		3VDC(Battery built−in)									
Display		LCD zero blanking type(Character size : W3mm × H7mm)									
Counting speed		1cps	30cps	1kcps	7kcps	1cps	30cps	1kcps	7kcps	20cps	
Reset	Manual(front)	None				Front key				None	Front key
	Remote	Terminals									
Input type		No voltage input								Universal voltage input	
Count input		Impedance at short−circuit : Max. 10kΩ(ON), Impedance at open−circuit : Min. 500kΩ(OFF)								"H" level:24−240VAC 6−240VDC "L" level:0−1.5VAC 0−2VDC	
Reset input		Impedance at short−circuit : Max. 10kΩ(ON), Impedance at open−circuit : Min. 500kΩ(OFF)									
Insulation resistance		Min. 100MΩ(at 500VDC)									
Dielectric strength		1000VAC 50/60Hz for 1 minute									
Vibration	Mechanical	0.75mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 1 hour									
	Malfunction	0.5mm amplitude at frequency of 10 ~ 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									
Ambient temperature		−10 ~ +55℃(at non−freezing status)									
Storage temperature		−25 ~ +65℃(at non−freezing status)□									
Ambient humidity		35 ~ 85%RH									
Battery life cycle		Approx. 7years at 25℃									
Approval		CE								————	
Weight		Approx. 55g									

▣Specifications

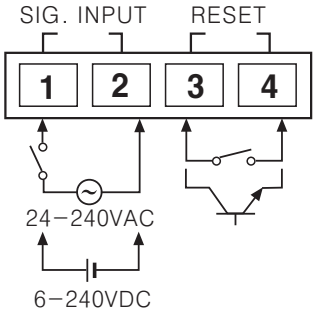
Input	Model	Count speed	Reset switch	Power supply
No voltage input	**LA7N-1**	1cps	None	Not required (Battery built-in)
	LA7N-2	30cps		
	LA7N-3	1kcps		
	LA7N-4	7kcps		
	LA7N-1R	1cps	Have	
	LA7N-2R	30cps		
	LA7N-3R	1kcps		
	LA7N-4R	7kcps		
Universal Voltage input	**LA7N-F**	20cps	None	
	LA7N-FR		Have	

▣Connections

●No voltage input



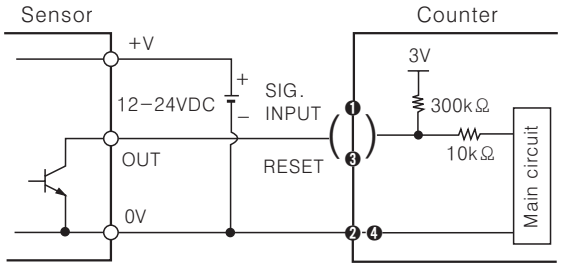
●Universal voltage input



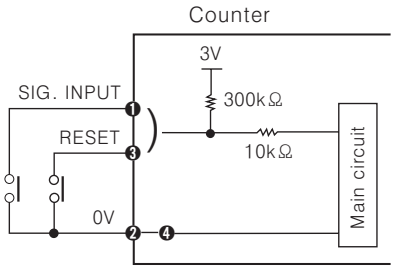
▣Input connections

◎Applicable series : **LA7N series**

●No-voltage input

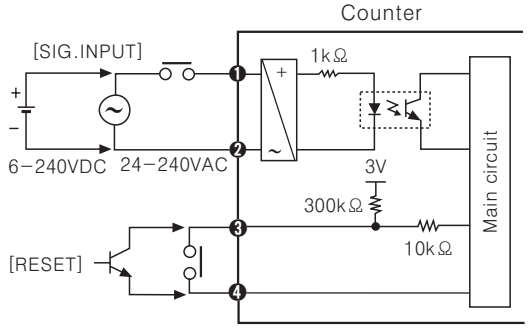


※Standard input sensor : NPN open collector
※NPN universal output type and PNP universal output type sensor cannot be used.
※❷ and ❹ are connected at inside.



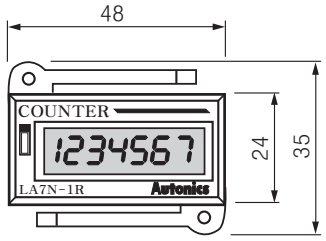
※Please use contact that can function reliably at max. 3VDC 10㎂.

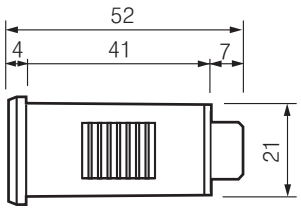
●Universal voltage input



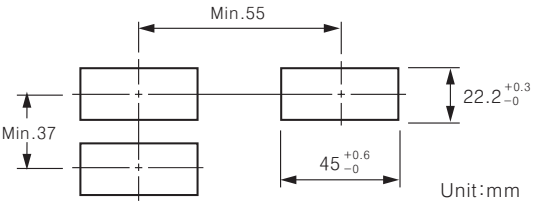
※AC type proximity sensor cannot be used as the source of counting input signals.
※Input terminal ❶, ❷ and Reset terminal ❸, ❹ are insulated at inside.
※It is not possible to reset with AC power or DC power.
※When use relay contact as the source of Reset signal, please use relay contact that can function reliably at max. 3VDC 10㎂.

▣Dimensions





●Panel cut-out



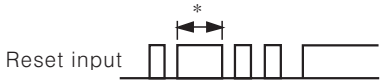
Unit:mm

▣Proper usage

◎Reset

●The reset signal width

It is reset perfectly when the reset signal is applied for max. 20ms regardless of the contact input & solid-state input.

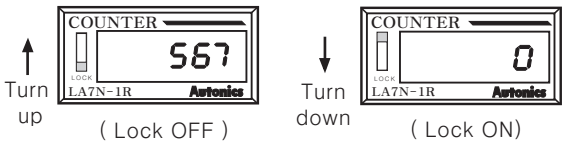


*In case of a contact reset, it is reset perfectly if the ON time of reset signal is applied for max. 20ms even though a chattering is occurred.

●Front reset switch

*When pushing the front reset switch for 20ms, it is reset clearly.

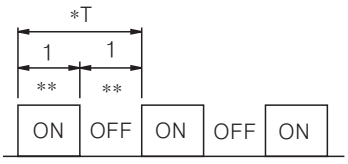
**If the front reset switch is locked, it is not available to push.



◎Counting speed

Please be cautious that it does not operate when the counting speed exceeds the rated speed.
(Lower counting speed than the rated speed does not matter.)

●Min. signal width

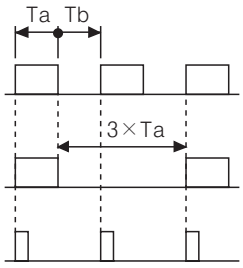


*Please make duty rate of 1cycle as 1:1.

**Min. signal width
- 1cps : Min. 500ms
- 20cps : Min. 25ms
- 30cps : Min. 16.7ms
- 1kps : Min. 0.5ms
- 7kps : Min. 0.07ms

●Maximum counting speed

This is respond speed per 1sec. when the duty rate(ON/OFF) of input signal is 1:1 if duty rate is not 1:1, the respond speed will be a getting slow against input signal and also the width between ON and OFF should be over min. signal width.
And also one of On width and oFF width is under min.signal width, this product may not response.



Therefore Ta(ON width)and Tb (OFF width) need to be over min. signal width.

When duty rate is 1:3, the max. counting speed will be 1/2 from the value in catalogue.

This product does not response FH/LH manual.