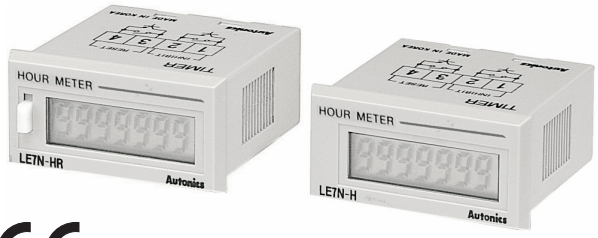
DIN Size W48×H24mm, LCD Miniature Elapsed Time indicator

▣Features

- ●Compact size(DIN size W48×H24mm)
- ●Internal lithium battery
- ●Screw terminal connections
- ●LCD display
- ●Micro computer built-in



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

▣Ordering information

L E 7 N - H F R

R	Front Reset switch
	No front Reset switch
F	Free voltage input
	No-voltage input
H	hour
M	min
S	sec
N	DIN Size W48×H24mm
7	9999999(Digit)
E	TIMER
L	LCD Display

※When selecting a model, please refer specifications.

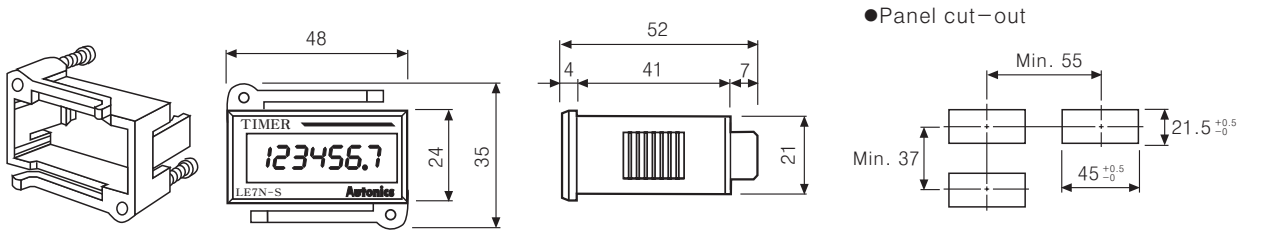
▣Specifications

Item		No-voltage input type				Universal voltage input type			
Model		LE7N-S	LE7N-M	LE7N-H	LE7N-HR	LE7N-SF	LE7N-MF	LE7N-HF	LE7N-HFR
Digit		7digit							
Operation method		Up mode only							
Power supply		Not required(Battery built-in)							
Display method		LCD Zero Blanking method(Display size : H7mm × W3mm)							
Time range		0.0s~ 99h59m59.9s	0.0m~ 9999h59.9m	0.0h ~ 999999.9h	0.0h~ 999999.9h	0.0s~ 99h59m59.9s	0.0m~ 9999h59.9m	0.0h ~ 999999.9h	0.0h~ 999999.9h
Reset	Manual(Front)	None			Have	None			Have
	External(Terminal)	Have							
Start input		●No-voltage input · Impedance at short-circuit:Max. 10kΩ (ON) · Impedance at open:Min. 500kΩ (OFF)				●Voltage input ☞ ON voltage:24-240VAC, 6-240VDC OFF voltage:0-1.5VAC, 0-2VDC			
Reset input									
Battery life cycle		Approx. 7 years at 25℃							
Insulation resistance		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	0.3mm 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 3 times							
	Malfunction	100m/s² (Approx. 10G) in X, Y, Z directions 3 times							
Ambient temperature		-10 ~ +55℃ (at non-freezing status)							
Storage temperature		-25 ~ +65℃ (at non-freezing status)							
Ambient humidity		35 ~ 85%RH							
Approval		CE				———			
Weight		Approx. 55g							

▣Specifications

Input	Model	Time range	Reset switch	Power supply
No-voltage input	**LE7N-S**	99h59m59.9s	None	Not required (3VDC Battery built-in)
	LE7N-M	9999h59.9m		
	LE7N-H	999999.9h		
	LE7N-HR	999999.9h	Have	
Universal voltage input	**LE7N-SF**	99h59m59.9s	None	
	LE7N-MF	9999h59.9m		
	LE7N-HF	999999.9h		
	LE7N-HFR	999999.9h	Have	

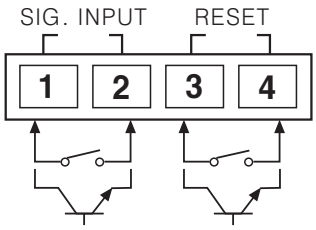
▣Dimensions



Unit:mm

▣Connections

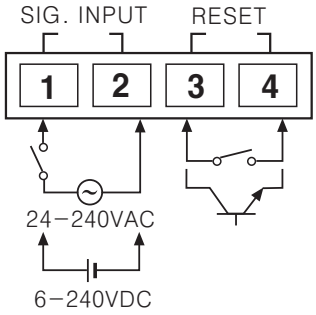
●No-voltage input



※Please use reliable contact enough to flow 10㎂ current.

※No. 2 and No.4 have been connected inside.

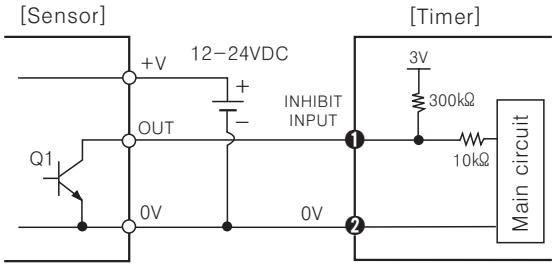
●Universal voltage input



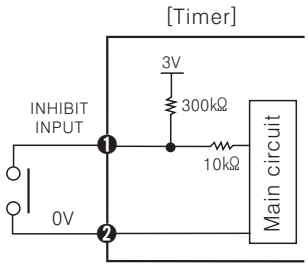
※Power terminal(No. 1, 2) and Reset terminal (No. 3, 4) are isolated.

▣Input(Start) and Inhibit

◎No-voltage input type



(Solid state type)



(Relay contact)

●Operation

①Q1 or relay contact is ON, the time progresses.

②Q1 or relay contact is OFF, the time is on inhibit states. When turn on the switch again, the time progresses again.

③When the time reaches to Full scales, it will return to zero then progressign again.

●Caution for using

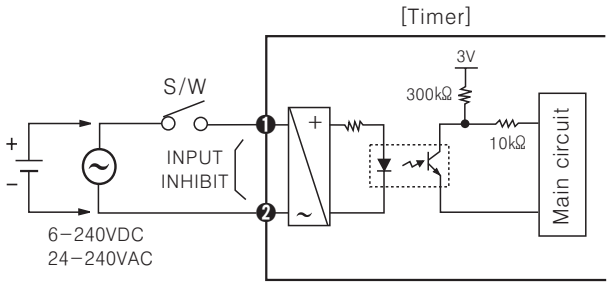
※Please use NPN open collector output type sensor.

※Please supply the power for sensor from external.

※Beware not to supply the power into INPUT terminal. (No. ①, ②)

※Please use reliable contacts enough to flow 10㎂ current.

◎Universal voltage input type



●Operation

①S/W ON, time progresses.

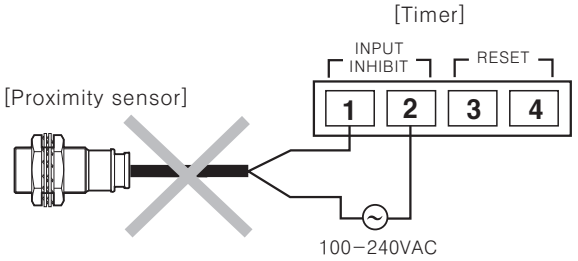
②S/W OFF, the time is on inhibit states. When turn on the switch again, the time progresses again.

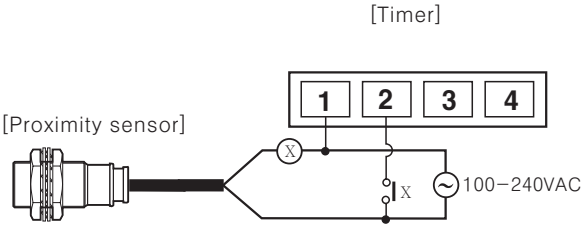
③When the time reached to Full scales, it will return to zero when progressing again.

●Caution for using

Do not use the AC type of the proximity sensors as a switch without any load like below.

Please put some load to prevent malfunction occurring because of leakage current of the proximity sensor.



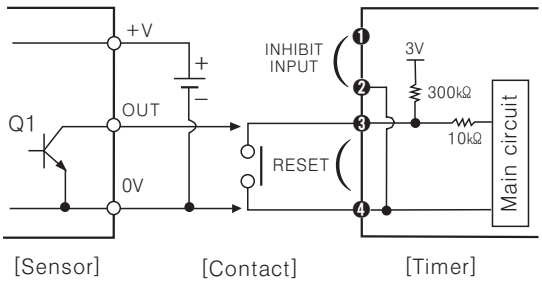


▣Reset

●Operation

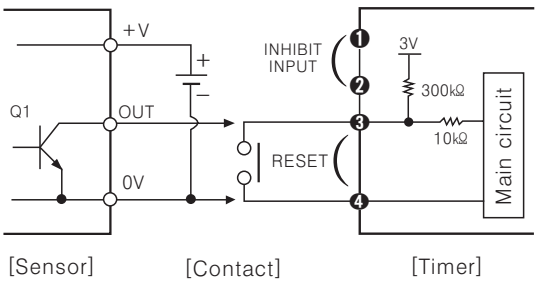
When input transistor(Q1) or relay contact is ON, it will be RESET.

●No voltage input type



※❷, ❹ are GND terminals and connected inside.

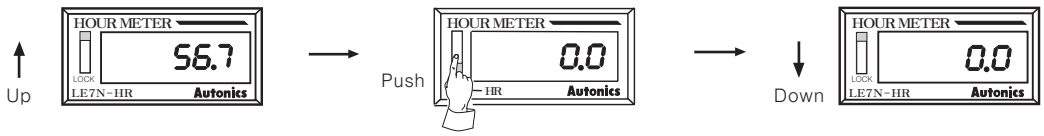
●Universal voltage input type



※Between not to supply the voltage in No. ❸, ❹ RESET terminal.
※Input terminal(No. ❶, ❷) and RESET terminal(No. ❸, ❹) are insolated inside.

※When RESET required with relay contact. Please use a contacts that can function reliably at 10㎂ max.
※Please supply the power for sensor from external.

●How to use front reset switch



(Un lock) (Time Reset) (Lock)

※Model : LE7N-HR, LE7N-HFR
※Lock switch up for reset.