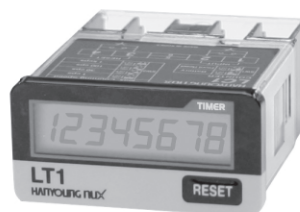


LT1

LCD display Timer

- Compact LCD display total counter
- Battery built in type so external power not required
- Re-usage possible by replacing the battery
- Less power consumption so long life expectancy (approx 10 years at room temp)
- Non-voltage input or voltage input
- IP66 protective structure (front side)



C

Counter /
Timer

Suffix code

Model	Code	Description
LT1-	<input type="checkbox"/>	Compact LCD display total Timer (dimension : DIN 48 X 24 mm)
Input signal		Non voltage input (no indication)
	F	Voltage input (24 – 240 V AC, 6 – 240 V DC)

Specification

Input

Model		LT1	LT1-F
Power supply voltage		Lithium battery built in	
Dimension		DIN 48 X 24 mm	
Operation type		UP Timer	
Time display		9999 h 59 m 59 s / 99999 h59.9 m / 999999 h 59 m / 9999999.9 h	
Time accuracy		± 0.01 %	
Input condition		Remaining voltage when breaks : 0.7 V Max impedance when breaks : max 10 k Ω Min impedance when opens : min 1 M Ω	HIGH : 24 – 240 V AC / 6–240 V DC LOW : 0 – 2 V AC / DC
Start	Input type	Non-voltage input	Voltage input
	Min signal width	Min 20 ms	
Reset	Input type	Non-voltage input	
	Min signal width	Min 20 ms	
Battery life expectancy		Expectancy : at least 10 years (approx. 25°C) ※This is calculated value so it is not certified value (Replacing cycle reference value)	
External setting switch		Switch 1 : internal power / front reset selectable Switch 2 : computing speed selectable (4 kinds) time range selectable	
External connection		Terminal (4P)	
Display method		7 segments LCD (character height : 8.7 mm)	
Displayable digits		8 digits	
Insulation resistance		Min 100 M Ω (500 V DC), conductive terminal-disposable metal	
Dielectric strength		2000 V AC 50/60 Hz for 1 min (conductive part-non-recharging metal)	

Installation environment

Vibration resistance	10 – 55 Hz, double amplitude 0.75 mm, each direction in 3 axis, 2h
Shock resistance	300 ٪, each direction in 3 axis each 3 times
Ambient temperature	-10 ~ 55 °C
Ambient humidity	35 ~ 85 % RH
Storage temperature	-20 ~ 65 °C
Degree of protection	IP 66 (Front side)
Weight	58 g



Default function setting

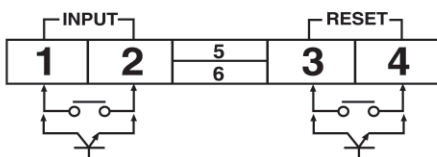
Model	LT1	LT1-F
Switch-1	Internal battery : OFF Front reset key : Not used	
Switch-2	Time range : 9999 h 59 m 59 s	

Function setting

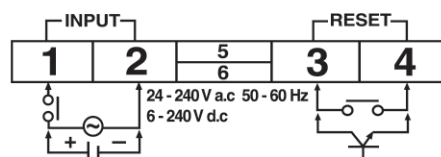
Switch	Description
Function setting (Switch-1)	Internal battery ON
	Internal battery OFF
Front reset key used	Front reset key not used
	9999 h 59 m 59 s
Time range setting (Switch-2)	99999 h 59.9 m
	999999 h 59 m
	9999999.9 h

Connection diagram

● Non-voltage input (LT1)

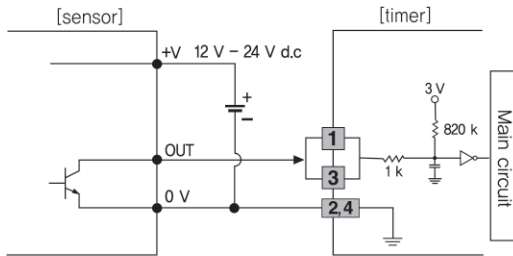


● Free-voltage input (LT1-F)



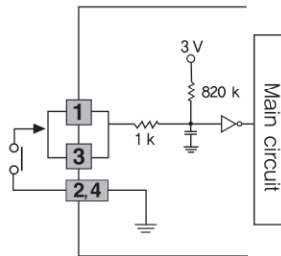
Input connection

- Non-voltage input
 - Non voltage input



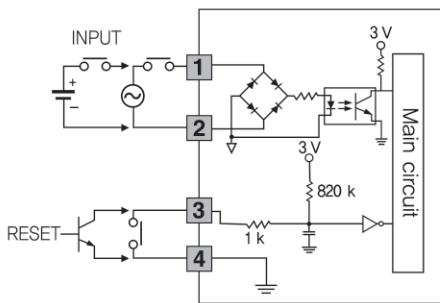
- Please use NPN open collector output type sensor and please supply the power externally
- Do not supply in the voltage to the terminal 1 and 3. Doing so may cause malfunction or damage the product

- Contact input

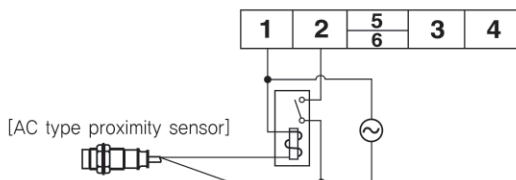


- contact input (relay, switch) should sufficiently flow 3V DC 5uA
- ※ GND terminal 2 and 4 are connected internally

- Voltage input

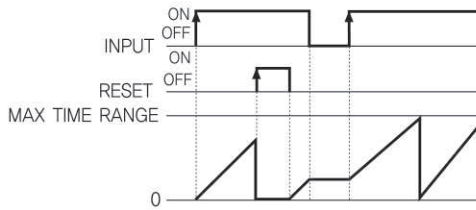


- Input 1 and 2 must use voltage input (24–240 V AC 50/60 Hz, 6–240 V DC) and input 3 and 4 use non-contact input (NPN transistor) or contact input (relay, switch).
- Terminal 1 and 2 and the terminal 3 and 4 are insulated internally
- Contact input (relay, switch) must sufficiently flow 3V DC 5uA
- Do not connect directly connect AC 2 wire type proximity sensor and use it. Using the AC proximity sensor will let timer to operate abnormally due to the leakage current so when users need to use AC 2 wire type proximity sensor, please operate the relay in the middle and operate the timer it just like an image provided in the below.



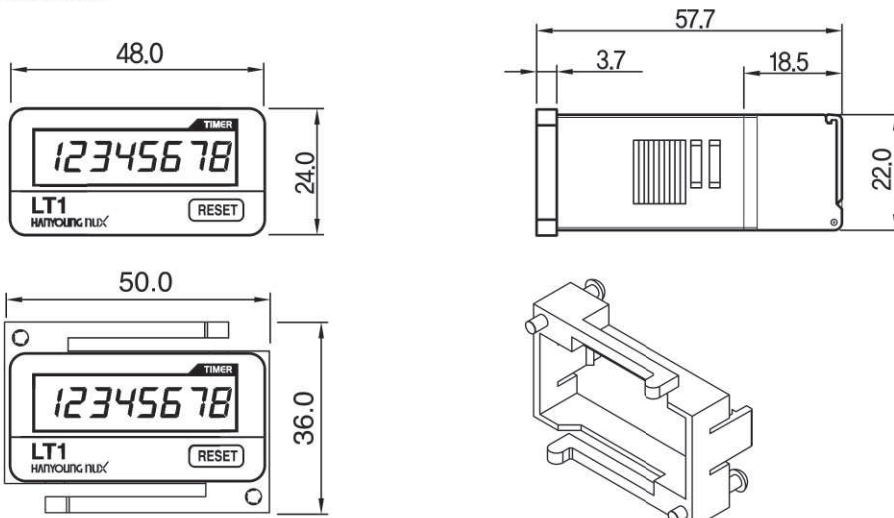
● Input action (operation chart)

• Timer action mode



● Dimension and panel cutout (unit : mm)

● Dimension



Fixing adapter (FA-241)

● Panel cutout

