

LC1

LCD display digital counter

- 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 7 years at room temp)
- Non-voltage input or voltage input
- IP66 protective structure (front side)



C

Counter /
Timer

Suffix code

Model	Code	Description
LC1-	<input type="checkbox"/>	Compact LCD display total counter (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	LC1	LC1-F
Input type	Non-voltage input	Voltage input
Power supply voltage	Lithium battery built in	
Dimension	DIN 48 X 24 mm	
Input action	UP Count	
Computation speed	1 / 30 / 100 / 1 K cps	20 cps
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
Reset	Input type	Non-voltage input
	Min signal width	Min 20 ms
Battery life expectancy	At least 7 years (approx. 25 °C) *This is calculated value so it is not certified value (Replacing cycle reference value)	
External setting switch	Switch1 : internal power/front reset selectable Switch2 : computing speed selectable (4 kinds)	Switch1 : internal power/front reset selectable
External connection	Terminal (4P)	
Display method	7 segments LCD (character height : 8.7mm)	
Displayable digits	8 digits	
Insulation resistance	Min 100 M Ω (500 V DC), conductive terminal non-recharging metal	
Dielectric strength	2000 V AC 50/60 Hz for 1 min (conductive part-disposable 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	IP66 (Front side)
Weight	58 g



Default function setting

Model	LC1	LC1-F
Switch-1 	Internal battery : OFF	Internal battery : OFF
	Front reset key : Not used	Front reset key : Not used
Switch-2 	Computing speed : 1 cps	NO (20 cps Fixed)

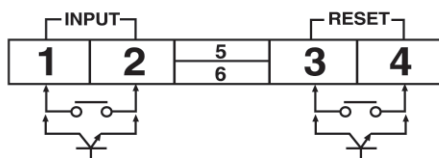
Function setting

Switch	Description
Function setting (Switch-1) 	Internal battery ON
	Internal battery OFF
	Front reset key used
	Front reset key not used
Computing speed setting (Switch2) 	1 cps
	30 cps
	100 cps
	1 K cps

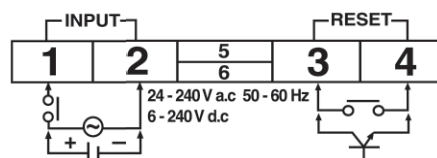
* Computing speed of Model LC1-F is fixed to 20 cps.

Connection diagram

● Non-voltage input (LC1)



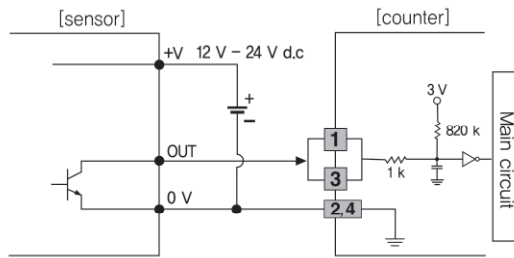
● Free-voltage input (LC1-F)





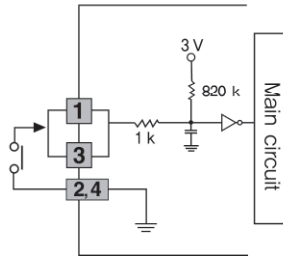
Input connection

- Non-voltage input
 - Non voltage input



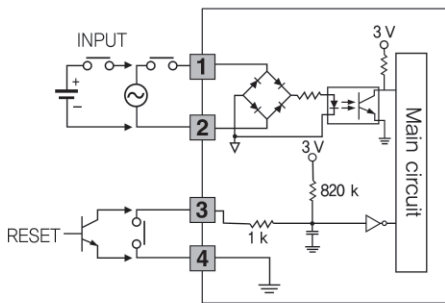
- Please use NPN open collector output type sensor and please supply the power externally
- Do not supply in the voltage to the terminal 1 and 3. Doing so may cause malfunction or damage the product

- Contact input

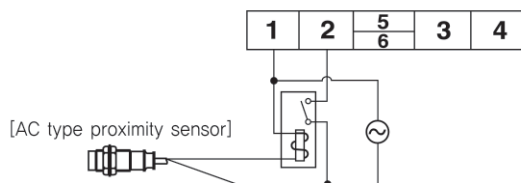


- Contact input (relay, switch) should sufficiently flow 3V DC 5uA
- ※ GND terminal 2 and 4 are connected internally

- Voltage input

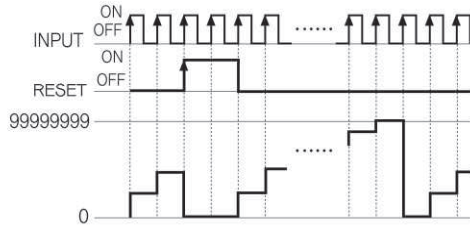


- Input 1 and 2 must use voltage input (24–240 V AC 50/60 Hz, 6–240 V DC) and input 3 and 4 use non-contact input (NPN transistor) or contact input (relay, switch).
- Terminal 1 and 2 and the terminal 3 and 4 are insulated internally
- Contact input (relay, switch) must sufficiently flow 3V DC 5uA
- Do not connect directly connect AC 2 wires type proximity sensor and use it. Using the AC proximity sensor will compute the value 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 compute it just like an image provided in the below.



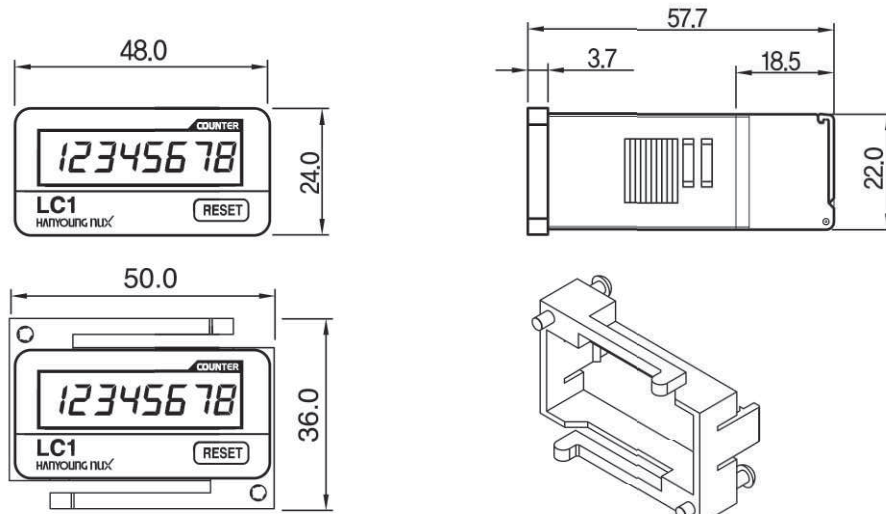
● Input action (operation chart)

- counter action mode



○ Dimension and panel cutout (unit : mm)

- Dimension



Fixing adapter (FA-241)

- Panel cutout

