

Analog timer

HANYOUNG NUX

# T38N/T48N INSTRUCTION MANUAL

HANYOUNGNEX CO.,LTD

28, Gilpa-ro 7beon-gil, Nam-gu, Incheon, Korea TEL : (82-32)876-4697 FAX : (82-32)876-4696

PT. HANYOUNG ELECTRONIC INDONESIA

JL.CEMPAKA BLOK F 16 NO.02 DELTA SILICON II INDUSTRIAL PARK LIPPO CIKARANG CICAU, CIKARANG PUSAT BEKASI 17550 INDONESIA TEL : 62-21-8911-8120~4 FAX : 62-21-8911-8126

## Safety information

Alerts declared in the manual are classified to Danger, Warning and Caution by their criticality

<b>⚠ DANGER</b>	DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury
<b>⚠ WARNING</b>	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
<b>⚠ CAUTION</b>	CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury

### ⚠ DANGER

Do not touch or connect any undesirable conductive part to input/output terminal since there is a possibility of electric shock.

### ⚠ WARNING

- Please install an appropriate protective circuit on the outside if malfunction, an incorrect operation or failure of the product may be a cause of leading to a serious accident and plan for preventing accidents.
- After mounting the product onto a panel, please use a socket dedicated to the product when connecting with other units and do not turn on the power until completing wiring to prevent electric shock.
- Please turn off the power when mounting/dismounting of the product. This is a cause of electric shock, malfunction, or failure.
- If the product is used with methods other than specified by the manufacturer, then it may lead to injury or property damage.
- In order to use this product properly and safely, we recommend periodic maintenance.
- The warranty of this product (including accessories) is 1 year only when it is used for the purpose it was intended under normal condition.

### ⚠ CAUTION

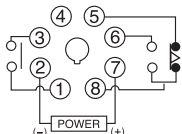
- Please do not set "Time" to "0". This can be a cause of malfunction. Also, there could be a time difference in timer operation. Please use it after confirming the time difference.
- Please set or change "Time Range" in the dip switch while the timer is OFF. If the "Time Range" has been changed to other value during the operation, please turn off the timer and turn it back on.
- Since this is not explosion-proof structure, please use in a place where corrosive gas (such as harmful gas, ammonia, etc.), combustible or explosive gas does not occur.
- Please use in a place where there is no direct vibration and a large physical impact to the product.
- Please use in a place where there is no water, oil, chemicals, steam, dust, salt, iron or others
- Please avoid using in a place where excessive amounts of inductive interference or electrostatic and magnetic noise occur.
- Please avoid using in a place where heat accumulation occurs due to direct sunlight or radiant heat.
- Please use in a place where the elevation is below 2,000 m.
- Please make sure to inspect the product if exposed to water since there is a possibility of electric leakage or a risk of fire.
- If there is a lot of noise from the power line, installing an insulated transformer or a noise filter is recommended.
- When the power is being supplied there should be a preparation time for the contact output.
- Please use a delay relay together when it is used as a signal on the outside of interlock circuit or others.

## Specification

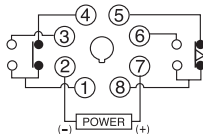
Power supply voltage	24 – 240 V AC 50 – 60 Hz, 24 – 240 V DC, 12 V DC (Option)	
Allowable voltage	Power supply voltage ±10 %	
Power consumption	4.5 VA max (240 V AC 60 Hz), Approx. 1.5 W max (24 V DC)	
Power reset time	0.1 s max	
Time range	※ Refer to suffix code	
Time difference	Repeat error	±0.3 % max (percentage of full scale)
	Setting error	±5 % max (percentage of full scale)
Control output	Output mode	POWER ON DELAY, INTERVAL (Option)
	Contact composition	A type (time-limit 1c + instantaneous 1a) / B type (time-limit 1c + instantaneous 1c) / C type (time-limit 2c)
Contact capacity	250 V AC 3 A resistive load	
Relay life span	Mechanical : 10 million times min / Electrical : 100 thousand times min	
Dielectric strength	2000 V AC 60 Hz for 1 min (Between two different current carrying parts)	
Noise immunity	±2 kV (between power terminal, pulse width ±1µs, square wave noise by noise simulator)	
Insulation resistance	100 MΩ min (500 V DC)	
Vibration resistance (durability)	10 – 55 Hz (for 1 min), amplitude 0.5 mm, for 3 direction for 2 hr	
Shock resistance (durability)	300 % for each 3 direction for 3 times	
Operating ambient temperature	-10 ~ 50 °C (without condensation)	
Operating ambient humidity	30 ~ 85 % R.H.	
Storage temperature	-20 ~ 65 °C	
Certification	CE	

## Connection diagram

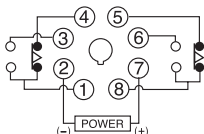
### ■ A type



### ■ B type



### ■ C type



## Suffix code

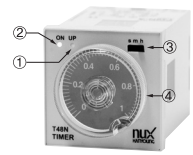
Model	Code	Description
Dimension	<input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Analog timer
	T38N	40.5(W) × 50.5(H) mm ※ It's necessary to use Panel Mount Adaptor in Case of Panel Type
Time range (set with dip switch)	01	1 sec, 1 min or 1 hour max, selectable
	03	3 sec, 3 min or 3 hour max, selectable
	06	6 sec, 6 min or 6 hour max, selectable
	10	10 sec, 10 min or 10 hour max, selectable
	30	30 sec, 30 min or 30 hour max, selectable
	60	60 sec, 60 min or 60 hour max, selectable
	12	12 hour, 24 hour or 48 hour max, selectable
Control output	A	Time-limit : contact 1c, instantaneous : contact 1a
	B	Time-limit : contact 1c, instantaneous : contact 1c
	C	Time-limit : 2 x contact 1c
Power supply voltage	None	24 – 240 V a.c./d.c. 50 – 60 Hz
	12	12 V d.c. (Only for T48N, Option)
Output mode	None	On-Delay
	S	Interval (Option)

## Part and function

### ■ T38N



### ■ T48N

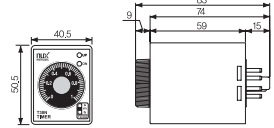


① UP LED	After time reaches "Set Time", UP LED is ON when the time-limit output is operating.
② ON LED	When the power is being supplied, ON LED is flashing. Also, ON LED is ON when the time-limit output is operating.
③ Time setting	Time setting knob. "Time" can be changeable during operation
④	It has s(second), m(minute) and h(hour) and can be selected arbitrarily. (but, it can be changed only when the power is OFF.)

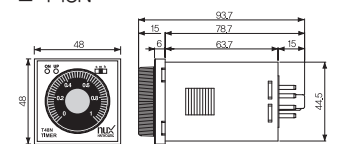
## Appearance and Panel cutout

[unit : mm]

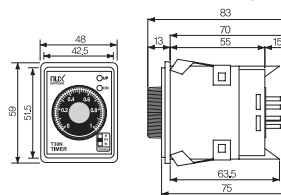
### ■ T38N



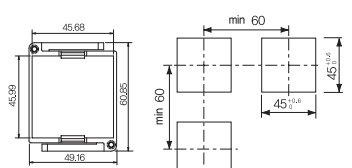
### ■ T48N



### ● T38N (With Panel Mount Adapter)

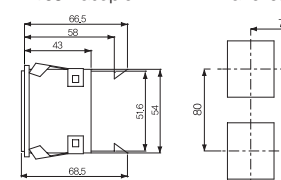


### ● T48N Bracket



### ● Panel cutout

### ● T38N adapter

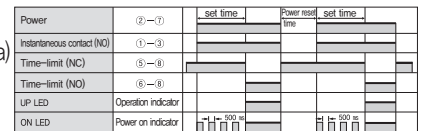


### ● Panel cutout

## Output operation

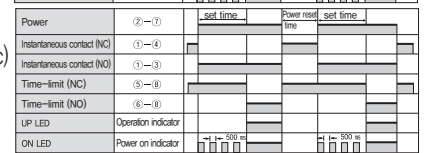
### ■ A type

(time-limit 1c + instantaneous 1a)

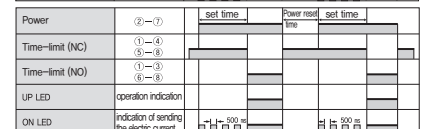


### ■ B type

(time-limit 1c + instantaneous 1c)



### ■ C type (time-limit 2c)



※ Above charts are On-Delay operations. In the Interval operation, Time-limit operates conversely.