

# MULTI FUNCTION TIMER AT11DN/AT11EN SERIES

## MANUAL

Thank you very much for selecting Autonics products.  
For your safety, please read the following before using.

### Caution for your safety

- \*Please keep these instructions and review them before using this unit.
- \*Please observe the cautions that follow:
- Warning** Serious injury may result if instructions are not followed.
- Caution** Product may be damaged, or injury may result if instructions are not followed.
- \*The following is an explanation of the symbols used in the operation manual.
- Caution:** Injury or danger may occur under special conditions.

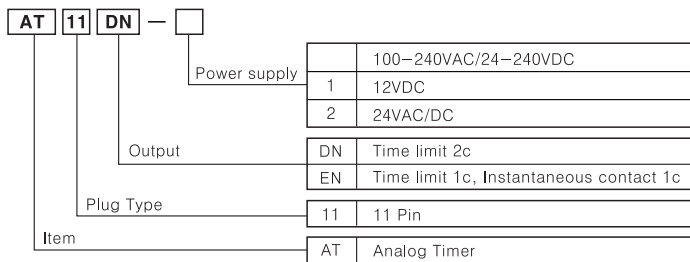
### Warning

- In case of using this unit with machineries(Nuclear power control, medical equipment, vehicle, train, airplane, combustion apparatus, entertainment or safety device etc), it is required to install fail-safe device, or contact us.**  
It may cause a fire, human injury or property loss.
- Install the unit on a panel.**  
It may give an electric shock.
- Do not connect, inspect or repair when power is on.**  
It may give an electric shock.
- Do not disassemble the case. Please contact us if it is required.**  
It may cause an electric shock or a fire.

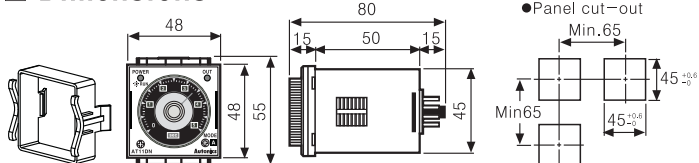
### Caution

- This unit shall not be used outdoors.**  
It might shorten the life cycle of the product or give an electric shock.
- Please observe the rated specifications.**  
It might shorten the life cycle of the product and cause a fire.
- Do not use beyond of the rated switching capacity of Relay contact.**  
It may cause insulation failure, contact melt, contact failure, relay broken and fire etc.
- In cleaning unit, do not use water or an oil-based detergent and use dry towels.**  
It may cause an electric shock or a fire.
- Do not use this unit in place where there are flammable or explosive gas, humidity, direct ray of the light, radiant heat, vibration and impact etc.**  
It may cause a fire or an explosion.
- Do not inflow dust or wire dregs into the unit.**  
It may cause a fire or a malfunction.

### Ordering information

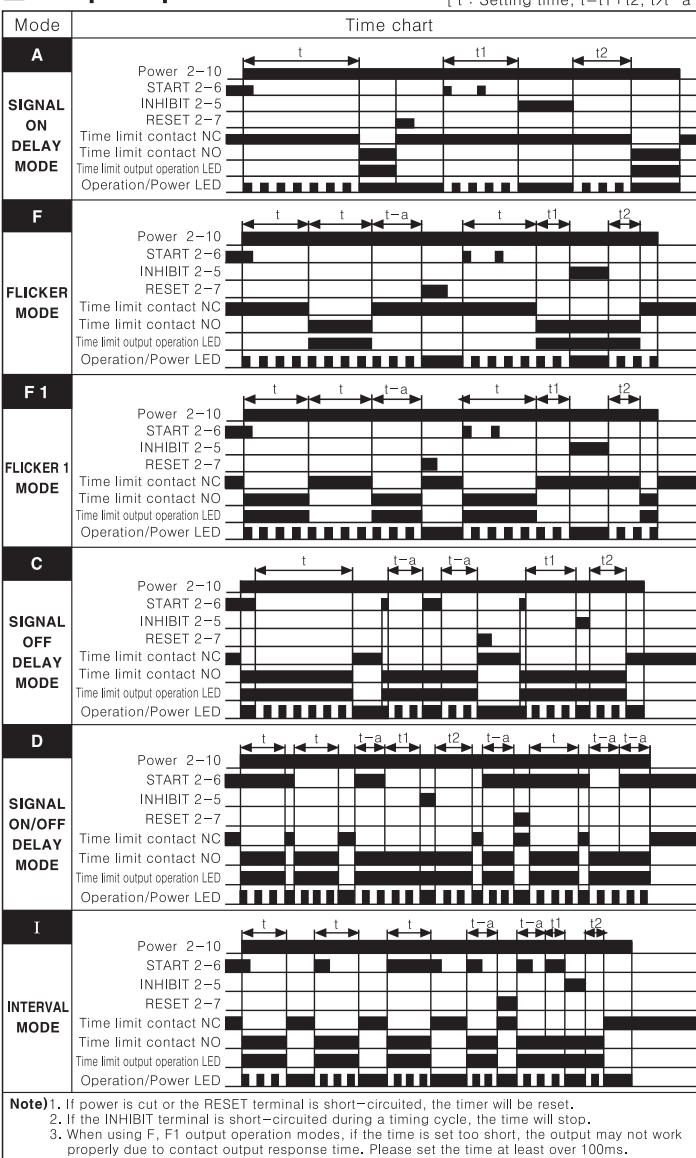


### Dimensions



\* The above specifications are subject to change and some models may be discontinued without notice.

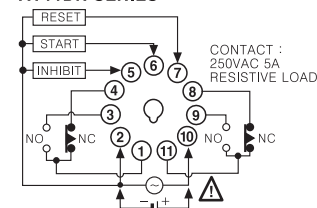
### Output operation mode



**Note**1. If power is cut or the RESET terminal is short-circuited, the timer will be reset.  
2. If the INHIBIT terminal is short-circuited during a timing cycle, the time will stop.  
3. When using F, F1 output operation modes, if the time is set too short, the output may not work properly due to contact output response time. Please set the time at least over 100ms.

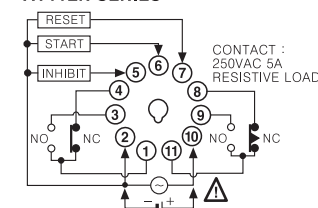
### Connections

#### AT11DN SERIES



SOURCE:  
• 100-240VAC 50/60Hz, 24-240VDC  
• 24VAC 50/60Hz, 24VDC  
• 12VDC

#### AT11EN SERIES



SOURCE:  
• 100-240VAC 50/60Hz, 24-240VDC  
• 24VAC 50/60Hz, 24VDC  
• 12VDC

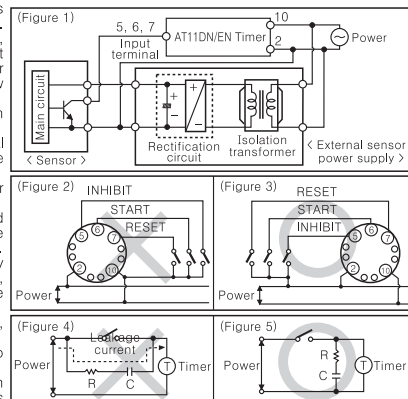
### Specifications

Model	AT11DN-□	AT11EN-□
Control time setting range	0.05 sec ~ 100 hour	
Power supply	• 100-240VAC 50/60Hz, 24-240VDC (Universal) • 24VAC 50/60Hz, 24VDC (Universal) • 12VDC	
Allowable voltage range	90 ~ 110% of rated voltage	
Power consumption	• 100-240VAC : 3.5VA, 24-240VDC : 1.5W • 24VAC : 4VA, 24VDC : 1.5W • 12VDC : 1W	• 100-240VAC : 4.3VA, 24-240VDC : 2W • 24VAC : 4.5VA, 24VDC : 2W • 12VDC : 1.5W
Return time	Max. 100ms	
Min. input signal width	START RESET INHIBIT	Min. 50ms
Input	START RESET INHIBIT	No-voltage input ⇒ Shot-circuit impedance : Max. 1k.Ω Residual voltage : Max. 0.5V Open-circuit impedance : Min. 100k.Ω
Control output	Contact Capacity	Time limit DPDT(2c)      Time limit SPDT(1c), Instantaneous SPDT(1c) 250VAC 5A resistive load
Relay life cycle	Mechanical Electrical	Min.10,000,000 times Min. 100,000 times(250VAC 5A resistive load)
Repeat error	Max. ±0.2% ±10ms	
Setting error	Max. ±5% ±50ms	
Voltage error	Max. ±0.5%	
Temperature error	Max. ±2%	
Insulation resistance	100M.Ω (at 500VDC)	
Dielectric strength	2000VAC 50/60Hz for 1 minute	
Environment	Ambient temperature -ment Ambient humidity	-10 ~ 55°C, Storage temperature: -25 ~ 65°C 35 ~ 85%RH, Storage humidity: 35 ~ 85%RH
Unit weight	Approx. 90g	

\*Environment resistance is rated at no freezing or condensation.

### Caution for using

- Power circuit for AT11DN/EN Timer is designed without using a transformer. For the power of sensor, therefore, use isolation transformer which is not grounded on secondary side in order to cut off the unnecessary current flow as shown in figure 1.
  - Please use the terminal ② as the common terminal as shown in Figure 3. If use the terminal ⑩ as common terminal as shown in Figure 2, it might cause damage to inner circuit of AT11DN/EN Timer.
  - Please connect DC power input after checking polarity of power.
  - In case of 12VDC model, isolated and limited voltage/current or Class2 source should be provided for power supply.
  - When apply the power, please apply rating power at the moment by switch, relay etc. Otherwise it might cause malfunction.
  - When supply the power to the timer, connection as shown in Figure 4. It might cause malfunction due to leakage current though R and C. Please connect R and C as shown in Figure 5 to prevent malfunction as shown in Figure 5.
  - In order to apply input signals(START,RESET, INHIBIT), short-circuit the terminal no. ②-⑤, ②-⑥ or ②-⑦. It may cause internal circuit damage by wrong connections.
  - Do not wire START, RESET, INHIBIT signal input line with power line, high voltage line in parallel. It might cause malfunction if change the setting time, time range or operation mode during unit operating. Please change the setting time, time range or operation mode after cut the power off.
  - Do not use this unit at below places.
    - Place where there are severe vibration or impact.
    - Place where strong alkalis or acids are used.
    - Place where there are direct ray of the sun
    - Place where strong magnetic field or electric noise are generated.
  - Installation environment
    - It shall be used indoor      ②Altitude Max. 2000m
    - Pollution Degree 2      ③Installation Category II
- \*It may cause malfunction if above instructions are not followed.**



### Major products

- Photoelectric sensors
- Fiber optic sensors
- Door sensors
- Door side sensors
- Area sensors
- Proximity sensors
- Pressure sensors
- Rotary encoders
- Connector/sockets
- Temperature controllers
- Temperature/Humidity transducers
- SSR/Power controllers
- Counters
- Timers
- Panel meters
- Tachometer/Pulse(Rate)meters
- Display units
- Sensor controllers
- Field network devices
- Laser marking system(Fiber, CO<sub>2</sub>, Nd:YAG)
- Laser welding/soldering system

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