

ANALOG TIMER  
**AT8N**

M A N U A L



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.

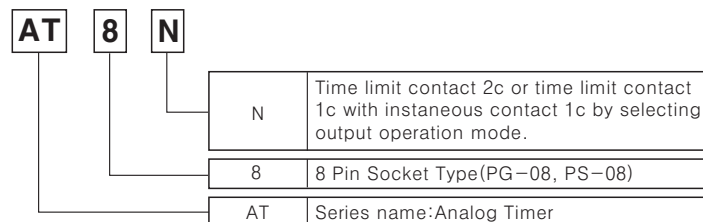
Warning

- In case of using this unit with machineries (Nuclear power control, medical equipment, vehicle, train, airplane, combustion apparatus, entertainment or safety device etc), it requires installing fail-safe device, or contact us for information required.**  
It may result in serious damage, fire or human injury
- The unit must be mounted on panel.**  
It may give an electric shock.
- Do not connect terminals when it is power on.**  
It may give an electric shock.
- Do not disassemble and modify this unit, when it requires. If needs, please contact us.**  
It may give an electric shock and cause a fire.

Caution

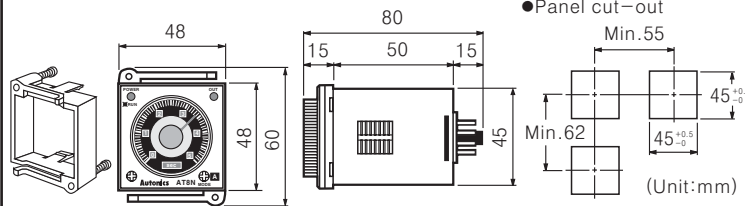
- This unit shall not be used outdoors.**  
It might shorten the life cycle of the product or give an electric shock.
- Please observe specification rating.**  
It might shorten the life cycle of the product and cause a fire.
- Do not use the load beyond rated switching capacity of Relay contact.**  
It may cause insulation failure, contact melt, contact failure, relay broken, fire etc.
- In cleaning the unit, do not use water or an organic solvents.**  
It might cause an electric shock or fire that will result in damage to the product.
- Do not use this unit at place where there are flammable or explosive gas, humidity, direct ray of the sun, radiant heat, vibration, impact etc.**  
It may cause a fire of mechanical trouble.
- Do not inflow dust or wire dregs into inside of this unit.**  
It may cause a fire of mechanical trouble.

Ordering information

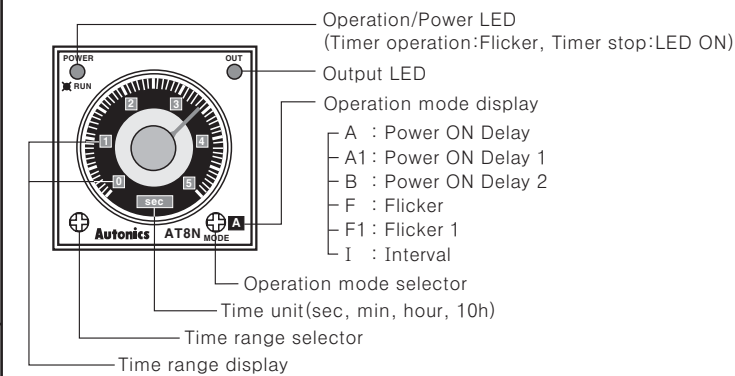


※ The above specification are changeable without notice anytime.

Dimensions



Front panel identification



Time specifications

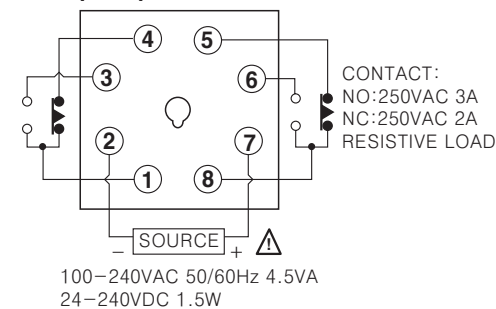
Time range	Time unit	Time setting range
0.5	sec	0.05 to 0.5
1.0		0.1 to 1.0
5		0.5 to 5
10	min	1 to 10
0.5		0.05 to 0.5
1.0		0.1 to 1.0
5	hour	0.5 to 5
10		1 to 10
0.5		0.05 to 0.5
1.0	10h	0.1 to 1.0
5		0.5 to 5
10		1 to 10

Specifications

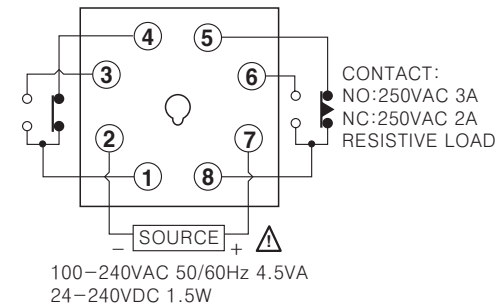
Model	AT8N	
Control time setting range	0.05sec to 100hour (Max. time)	
Power supply	• 100-240VAC (50/60Hz), 24-240VDC • 12VDC (Option)	
Allowable voltage range	90 to 110% of rated voltage	
Power consumption	• 100-240VAC : Approx. 4.5VA, 24-240VDC : Approx. 1.5W • 12VDC : Approx. 0.6W	
Return time	Max. 100ms	
Control output	Type	Time limit contact 2c or time limit contact 1c with instantaneous contact 1c by selecting output operation mode
	Capacity	NO: 250VAC 3A resistive load, NC: 250VAC 2A resistive load
Repeat error	Max. ±0.3%	
Setting error	Max. ±5% ±0.05sec	
Voltage error	Max. ±0.5%	
Temperature error	Max. ±2%	
Insulation resistance	Min. 100MΩ (500VDC mega between all terminals and case)	
Dielectric strength	2000VAC 50/60Hz for 1 minute (Between all terminals and case)	
Noise strength	±2kV the square wave noise (pulse width: 1μs) by the noise simulator	
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1 hours
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes
Shock	Mechanical	300m/s <sup>2</sup> (Approx. 30G) 3 times at X, Y, Z direction
	Malfunction	100m/s <sup>2</sup> (Approx. 10G) 3 times at X, Y, Z direction
Relay life cycle	Mechanical	Min. 10,000,000 times
	Electrical	Min. 100,000 times (NO: 250VAC 3A resistive load, NC: 250VAC 2A resistive load)
Ambient temperature	-10 to 55°C (at non-freezing status)	
Storage temperature	-25 to 65°C (at non-freezing status)	
Ambient humidity	35 to 85%RH	
Weight	Approx. 100g	

Connections

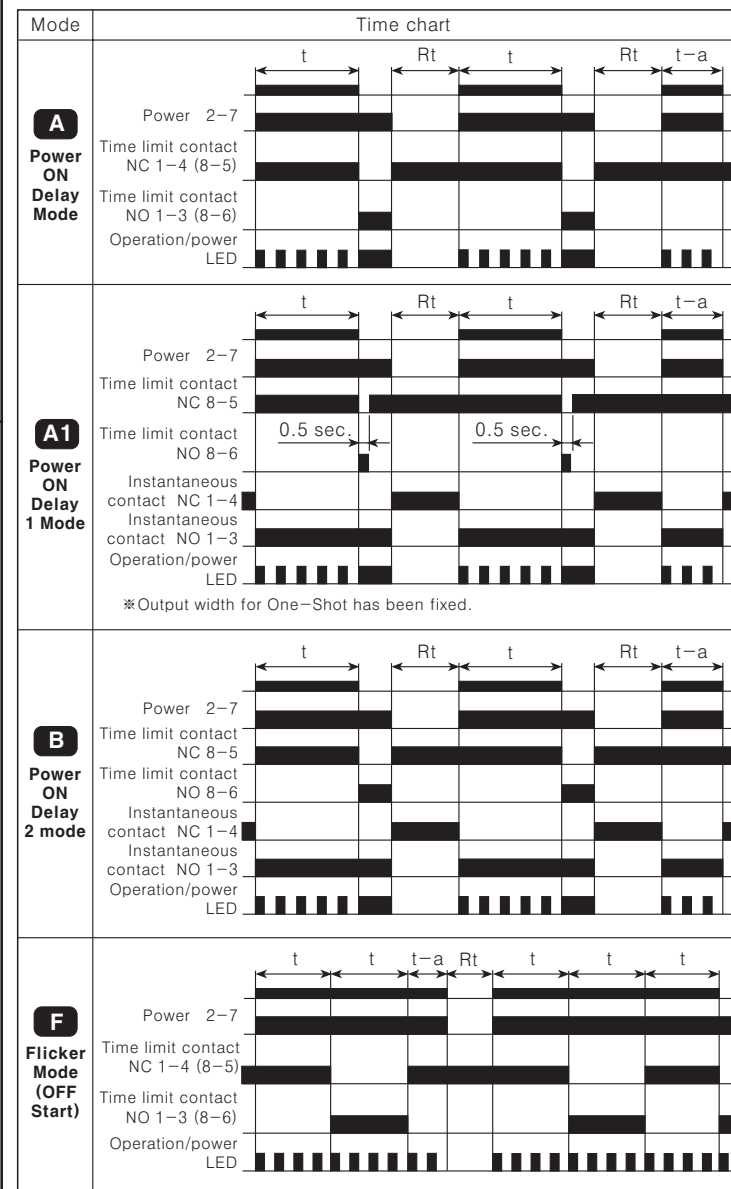
• [A], [F] output operation mode



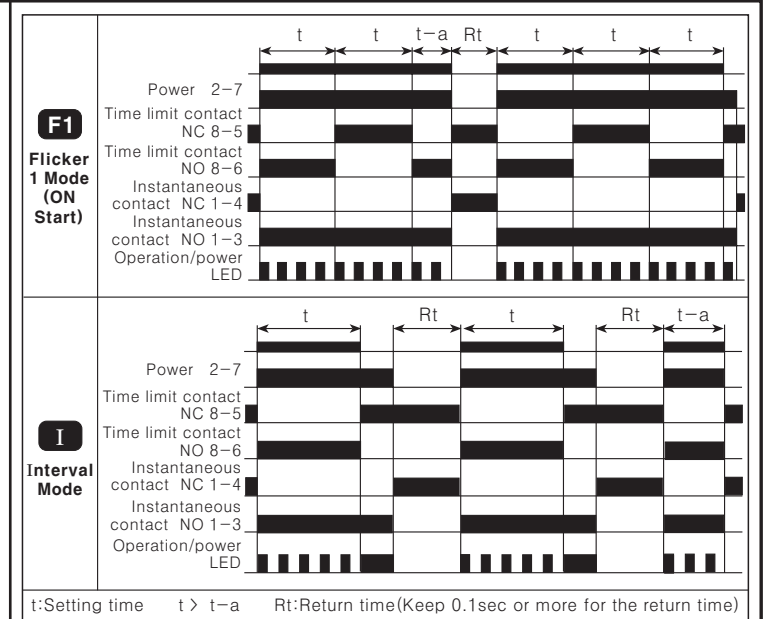
• [A1], [B], [F1], [I] output operation mode



Output operation mode

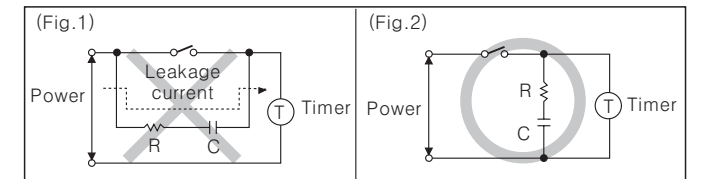


※ Please set the min. setting time for 100ms or more at F and F1 output mode operation. When the min. setting time is less than 100ms, it might not be operating normally due to relay contact reaction time.



Caution for using

- When apply the power, please apply rating power at the moment by switch, relay etc. Otherwise it might cause malfunction.
- Do not use this product for long time. It may cause shorten life cycle of Timer due to heat inner electric component.
- Please connect DC power input after checking polarity of power.
- When supply the power to the Timer, connection as shown in (Fig.1). It might cause malfunction due to leakage current through R and C. Please connect R and C as shown in (Fig.2) to prevent malfunction.



- 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.
- When test dielectric voltage and insulation resistance of the control panel with this unit installed.  
① Please isolate this unit from the circuit of control panel.  
② Please make all terminals of this unit short-circuited.
- Do not use this unit at below places.  
① Place where there are severe vibration or impact.  
② Place where strong alkalis or acids are used.  
③ Place where there are direct ray of the sun  
④ Place where strong magnetic field or electric noise are generated.
- Installation environment  
① It shall be used indoor  
② Altitude Max. 2000m  
③ Pollution Degree 2  
④ Installation Category II

※ It may cause malfunction if above instructions are not followed.

Main products

- COUNTER
- TIMER
- TEMPERATURE CONTROLLER
- PANEL METER
- TACHO/LINE SPEED/PULSE METER
- DISPLAY UNIT
- PROXIMITY SENSOR
- PHOTOELECTRIC SENSOR
- FIBER OPTIC SENSOR
- PRESSURE SENSOR
- ROTARY ENCODER
- SENSOR CONTROLLER
- POWER CONTROLLER
- STEPPING MOTOR & DRIVER & CONTROLLER
- LASER MARKING SYSTEM (CO<sub>2</sub>, Nd:YAG)

**ISE, Inc.**

10100 Royalton Rd, Cleveland, OH 44133  
Tel: (440) 237-3200 Fax: (440) 237-1744  
http://iseinc.com