

Autonics

ANALOG TIMER

**ATS11 SERIES**

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

1. In case of using this unit with machinery (Ex: nuclear power control, medical equipment, ship, vehicle, train, airplane, combustion apparatus, safety device, crime/disaster prevention equipment, etc) which may cause damages to human life or property, it is required to install fail-safe device.
It may cause a fire, human injury or property loss.

2. Install the unit on a panel.
It may cause electric shock.

3. Do not connect, inspect or repair this unit when power is on.
It may cause electric shock.

4. Do not disassemble the case. Please contact us if it is required.
It may cause electric shock or a fire.

Caution

1. This unit shall not be used outdoors.

It might shorten the life cycle of the product or cause electric shock.

2. Please observe the rated specifications.

It might shorten the life cycle of the product and cause a fire.

3. 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.

4. In cleaning unit, do not use water or an organic solvents. And use dry towels.

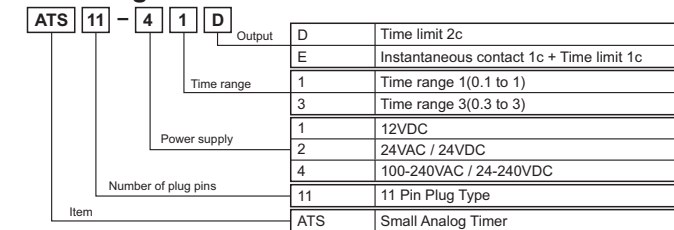
It may cause electric shock or a fire.

5. 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.

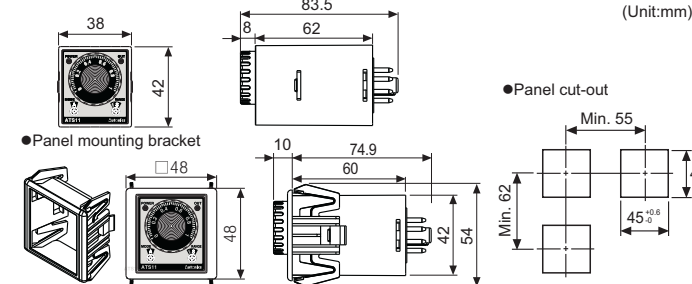
It may cause a fire or an explosion.

6. Do not inflow dust or wire dregs into the unit.

It may cause a fire or a malfunction.

Ordering information

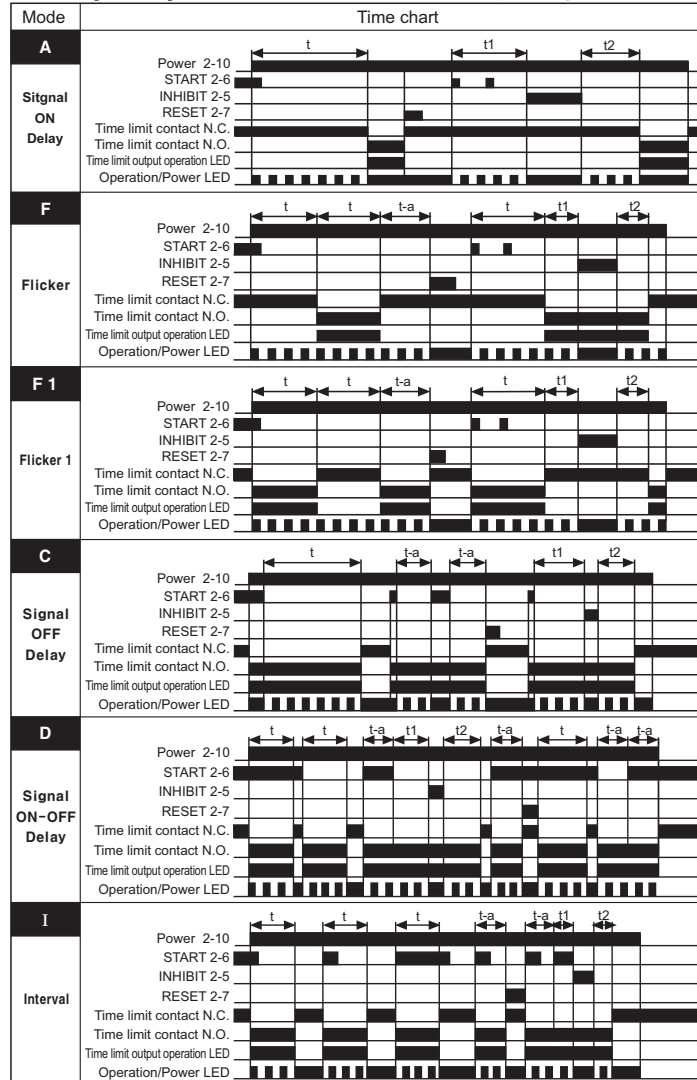
※ 11 Pin Socket(PG-11, PS-11) : Sold separately

Dimensions

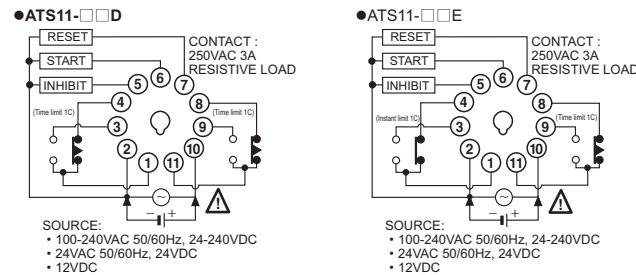
※ The above specifications are subject to change without notice.

Output operation mode

[t : Setting time, t=t1+t2, t>t-a]



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**Specifications**

Model	ATS11-1D	ATS11-3D	ATS11-1E	ATS11-3E
Control time setting range	0.1sec to 10hour	0.3sec to 30hour	0.1sec to 10hour	0.3sec to 30hour
Power supply	• 100-240VAC 50/60Hz, 24-240VDC (Universal)		• 24VAC 50/60Hz, 24VDC (Universal) • 12VDC	
Allowable voltage range	90 to 110% of rated voltage			
Power consumption	• 100-240VAC : 3.5VA, 24-240VDC : 1.5W • 24VAC : 4VA, 24VDC : 1.5W • 12VDC : 1W		• 100-240VAC : 4.2VA, 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. 1kΩ Residual voltage : Max. 0.5V Open-circuit impedance : Min. 100kΩ		
Control output	Contact	Type	Time limit DPDT(2c)	Time limit SPDT(1c), Instantaneous SPDT(1c)
	Capacity	250VAC 3A resistive load		
Relay life cycle	Mechanical	Min.10,000,000 times		
	Electrical	Min. 100,000 times(250VAC 3A resistive load)		
Repeat error	Max. ± 0.2% ± 10ms			
Setting error	Max. ± 5% ± 50ms			
Voltage error	Max. ± 0.5%			
Temperature error	Max. ± 2%			
Insulation resistance	100MΩ (at 500VDC megger)			
Dielectric strength	2000VAC 50/60Hz for 1 minute			
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			
Approval	CE, UL, VDE			
Unit weight	Approx. 72g			

※ Environment resistance is rated at no freezing or condensation.

Caution for using

- Power circuit for ATS 11 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 ATS11Timer.
- Please connect DC power input after checking polarity of power.
- In case of 12VDC/24VAC/24VDC model, isolated and limited voltage/current or Class 2 sources should be provided for power supply.
- When applying the power to the timer, please apply the rated power at the moment by switch, relay, etc. Otherwise it might cause malfunction.
- When supplying the power to the timer, connection as shown in Figure 4.
- It might cause malfunction due to leakage current though resistance (R) and condenser (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, ⑤-⑥ 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
 - Altitude Max. 2000m
 - Pollution Degree 2
 - Installation Category II

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

Major products

- Proximity sensors
- Area sensors
- Door/Door side sensors
- Counters
- Rotary encoders
- Power controllers
- Temperature controllers
- Tachometer/Pulse(Rate) meters
- Temperature/Humidity transducers
- Stepping motors/drivers/motion controllers
- Laser marking system(CO₂, Nd:YAG)
- Laser welding/soldering system
- Photoelectric sensors
- Fiber optic sensors
- Pressure sensors
- Timers
- Panel meters
- Display units
- Sensor controllers
- Graphic/Logic panels

Autonics Corporation
http://www.autonics.com

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HEAD QUARTERS :
414, Yongdang-dong, Yangsan-si, Gyeongsang, 626-847, Korea

OVERSEAS SALES :
Bldg. 402 3rd Fl., Bucheon Techno Park, 193, Yaksdae-dong, Woomin-gu, Bucheon-si, Gyeonggi-do, 420-734, Korea
TEL:82-32-610-2730 / FAX:82-32-329-0728
E-mail : sales@autonics.com

The proposal of a product improvement and development : product@autonics.com