

**ANALOG TIMER
ATS8SD-4**

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 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.
2. **Install the unit on a panel.**
It may give an electric shock.
3. **Do not connect, inspect or repair when power is on.**
It may give an electric shock.
4. **Do not disassemble the case. Please contact us if it is required.**
It may cause an electric shock or a fire.

Caution

1. **This unit shall not be used outdoors.**
It might shorten the life cycle of the product or give an 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 oil-based detergent and use dry towels.**
It may cause an 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

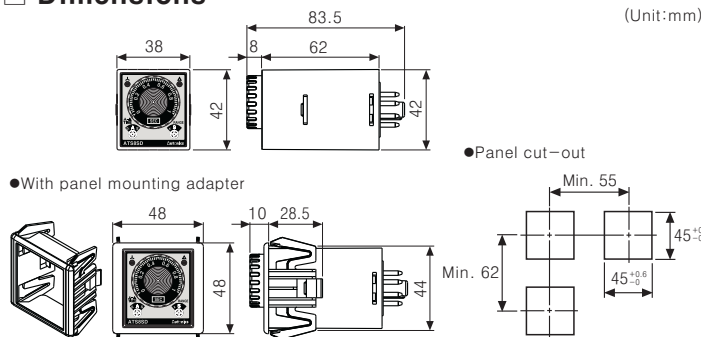


*The above specifications are subject to change without notice.

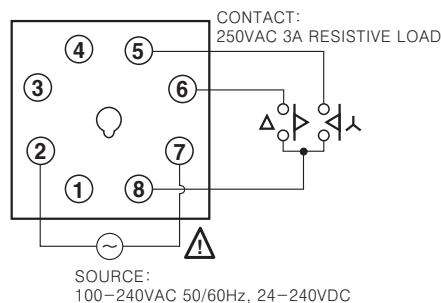
Specifications

Model	ATS8SD-4	
Function	Star-Delta switching	
Control time setting range	0.5sec ~ 100sec	
Power supply	100~240VAC 50/60Hz, 24~240VDC (Universal)	
Allowable voltage range	90 ~ 110% of rated voltage	
Power consumption	100~240VAC : 3VA, 24~240VDC : 1.5W	
Return time	Max. 100ms	
Control output	Contact	⌋ Contact : SPST(1a), ⚡ Contact : SPST(1a)
	Type 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%	
⌋-⚡ Switching time error	Max. ±25%	
Insulation resistance	100MΩ (at 500VDC)	
Dielectric strength	2000VAC 50/60Hz for 1 minute	
Noise strength	Square-wave noise by noise simulator, apply ±2kV in power input terminals	
Vibration	Destruction	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	Destruction	300m/s ² (Approx. 30G) 3 times at X, Y, Z direction
	Malfunction	100m/s ² (Approx. 10G) 3 times at X, Y, Z direction
Ambient temperature	-10 ~ 55°C (at non-freezing status)	
Storage temperature	-25 ~ 65°C (at non-freezing status)	
Ambient humidity	35 ~ 85%RH	
Approval	CE, UL	
Unit weight	Approx. 72g	

Dimensions



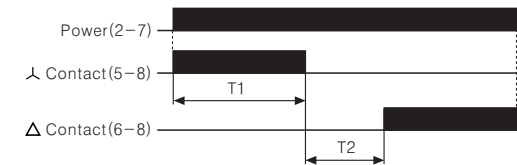
Connections



Operation and time specification

●Operation

⌋ contact will be ON as soon as power is supplied, ⌋ contact will be OFF when T1 setting time is up then ⚡ contact will be ON after T2 switching time is up.
⚡ contact will be OFF when cut off the power at the status of ⚡ contact is ON.



T1 : Setting time(⌋ contact operation)
T2 : ⌋-⚡ Switching time(⌋ and ⚡ contact are OFF when power is ON.)

●Time specification

• T1 (Setting time)

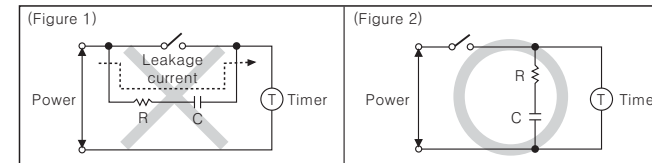
Time range	Time unit	Time setting range
5	sec	0.5 ~ 5sec
10		1 ~ 10sec
50		5 ~ 50sec
100		10 ~ 100sec

• T2 (⌋-⚡ Switching time)

T2(⌋-⚡ Switching time)	0.05sec	0.1sec	0.2sec	0.3sec	0.4sec	0.5sec
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Caution for using

1. When apply the power, please apply rating power at the moment by switch, relay etc. Otherwise it might cause malfunction.
2. When supply the power to the Timer, connection shown in Figure 1 might cause malfunction due to leakage current through R and C. Please connect R and C as shown in Figure 2 to prevent malfunction.



3. It might cause malfunction if changing the setting time, time range or operation mode during operating unit. Please change the setting time, time range or operation mode after cut the power off.
4. When performing dielectric voltage test or insulation resistance test while the unit is installed on control panel,
 - ①Please isolate this unit from the circuit of control panel.
 - ②Please make all terminals of this unit short-circuited.
5. Do not use this unit at below places.
 - ①Place where there are severe vibration or impact.
 - ②Place where strong alkalis or acids are used.
 - ③Place where there are direct ray of the sun.
 - ④Place where strong magnetic field or electric noise are generated.
6. Installation environment
 - ①It shall be used indoor
 - ②Altitude Max. 2000m
 - ③Pollution Degree 2
 - ④Installation 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
- Sensor controllers
- Panel meters
- Graphic/Logic panels
- 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
- Display units

Autonics Corporation
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