

Autonics

STAR DELTA TIMER AT8SDN

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.

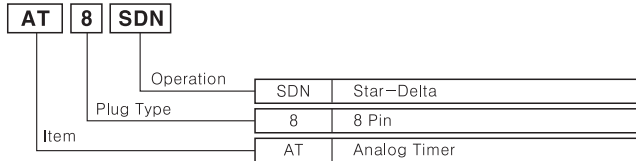
Warning

- In case of using this unit with machineries(Nuclear power control, medical equipment, vehicle, train, airplane, combustion apparatus, entertainment or safety device etc), it 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



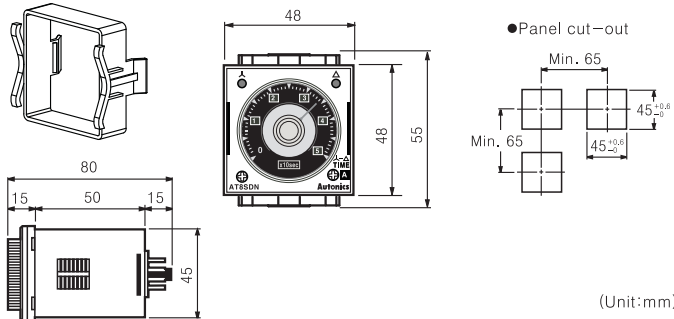
*8 Pin socket(PG-08, PS-08) : Sold separately
*The above specifications are subject to change and some models may be discontinued without notice.

Specifications

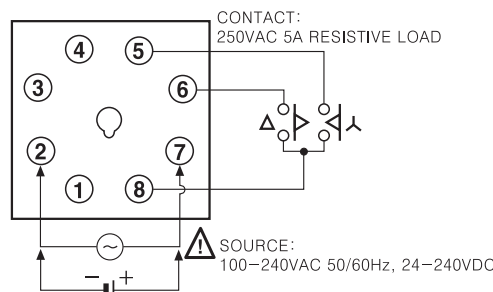
Model	AT8SDN	
Function	Star-Delta	
Control time setting range	0.5 sec ~ 100 sec	
Power supply	100-240VAC 50/60Hz, 24-240VDC (Universal)	
Allowable voltage range	90 ~ 110% of rated voltage	
Power consumption	100-240VAC : 3.2VA, 24-240VDC : 1.5W	
Return time	Max. 100ms	
Control output	Contact	Type
		Capacity
		Relay life cycle
		Electrical
		Repeat error
		Setting error
		Voltage error
		Temperature error
		Switching time error
		Insulation resistance
		Dielectric strength
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
Environment	Ambient temperature	-10 ~ 55°C, Storage temperature: -25 ~ 65°C
	Ambient humidity	35 ~ 85%RH, Storage humidity: 35 ~ 85%RH
Unit weight	Approx. 90g	

*Environment resistance is rated at no freezing or condensation.

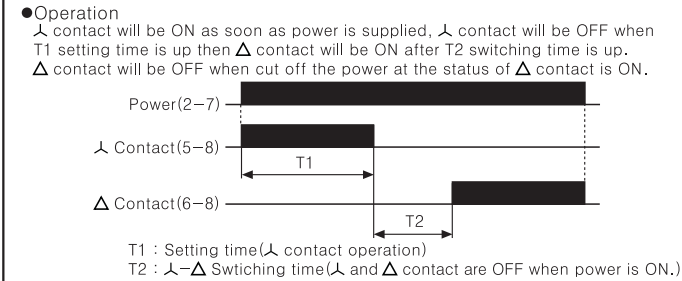
Dimensions



Connections



Operation and time specification



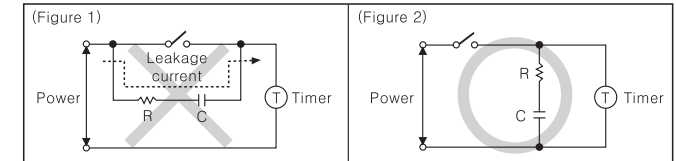
Time specification

Time range	Time unit	Time setting range
0.5	× 10 sec	0.5 ~ 5 sec
1.0		1 ~ 10 sec
5		5 ~ 50 sec
10		10 ~ 100 sec

Display	A	F	F1	C	D	I
T2(Δ Switching time)	0.05	0.1	0.2	0.3	0.4	0.5

Caution for using

- 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 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.



- 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.
- When performing dielectric voltage test or insulation resistance test while the unit is installed on control panel,
 - Please isolate this unit from the circuit of control panel.
 - Please make all terminals of this unit short-circuited.
- 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

- Photoelectric sensors
- Fiber optic sensors
- Door sensors
- Door side sensors
- Area sensors
- Proximity sensors
- Pressure sensors
- Rotary encoders
- Connector/Sockets
- Switching mode power supplies
- Control switches/Lamps/Buzzers
- I/O Terminal Blocks & Cables
- Stepper motors/drivers/motion controllers
- Graphic/Logic panels
- Field network devices
- Laser marking system(Fiber, CO₂, Nd:YAG)
- Laser welding/soldering system
- Temperature controllers
- Temperature/Humidity transducers
- SSR/Power controllers
- Counters
- Timers
- Panel meters
- Tachometer/Pulse(Rate)meters
- Display units
- Sensor controllers

Autonics Corporation
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Satisfiable Partner For Factory Automation

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