

AT8SDN Series

DIN W48 × H48mm Star-Delta Timer

■ Features

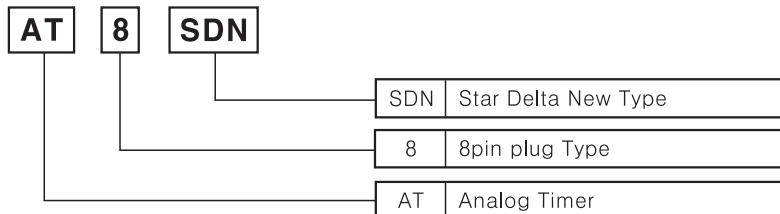
- Realization of wide range of power supply
: 24-240VAC 50/60Hz / 24-240VDC, 12VDC
- This is upgraded model from AT8SD series.
- Wide range of setting time and switching time.
 - T1 (Setting time) : Selectable 5, 10, 50, 100sec
 - T2 (Switching time) : Selectable 0.05, 0.1, 0.2, 0.3, 0.4, 0.5sec
- Easy setting of time, switching time on front panel.
- Built-in LED indicator for output status.
- Application : Starting large capacity motors



⚠ Please read "Caution for your safety" in operation manual before using.



■ Ordering information



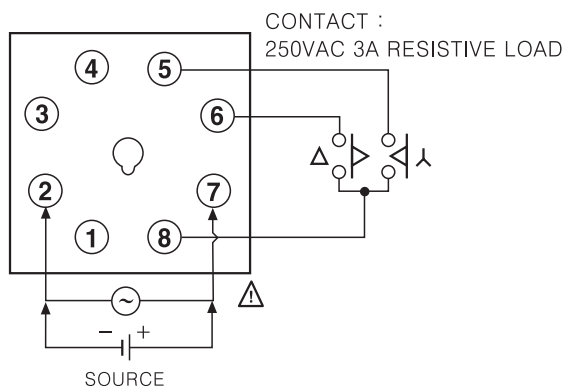
■ Specifications

※ A blacked (☐) item is upgraded function.

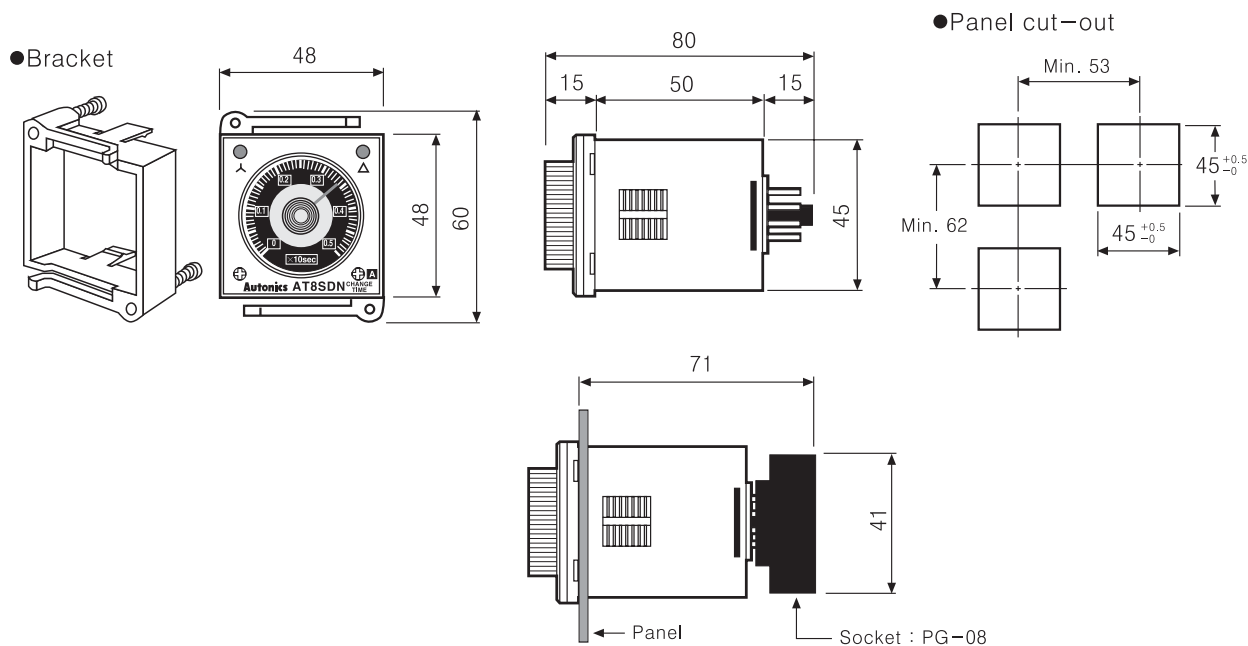
Model		AT8SDN
Function		Star-Delta TIMER
Control time setting range		0.5sec~100sec (Max. time)
Power supply		24-240VAC 50/60Hz / 24-240VDC, 12VDC
Allowable voltage range <input type="checkbox"/>		90 ~ 110% of rated voltage <input type="checkbox"/>
Power consumption		Approx. 2.8VA (24-240VAC 60Hz), Approx. 1.3W (24-240VDC), Approx. 0.5W (12VDC)
Return time <input type="checkbox"/>		Max. 100ms
Time operation		Power ON Start type
Control output <input type="checkbox"/>	Contact type	⋈ contact : SPST(1a), Δ contact : SPST(1a)
	Contact 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. ±0.3%
⋈ Setting error		Max. ±5% ±0.05sec.
Voltage error		Max. ±0.5%
Temperature error		Max. ±2%
Δ Switching time error		±25%
Insulation resistance		100MΩ (at 500VDC)
Dielectric strength		2000VAC 50/60Hz for 1 minute
Noise strength		±2kV the square wave noise (pulse width: 1μs) by the noise simulator
Vibration	Mechanical	0.75mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 1 hours
	Malfunction	0.5mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 10 minutes
Shock	Mechanical	300m/s ² (Approx. 30G) in X, Y, Z directions 3 times
	Malfunction	100m/s ² (Approx. 10G) in X, Y, Z directions 3 times
Ambient temperature		-10 ~ 55℃ (at non-freezing status)
Storage temperature		-25 ~ 65℃ (at non-freezing status)
Ambient humidity		35 ~ 85%RH
Approval		CE c UL US
Unit weight		Approx. 100g

Star-Delta Timer

■Connections

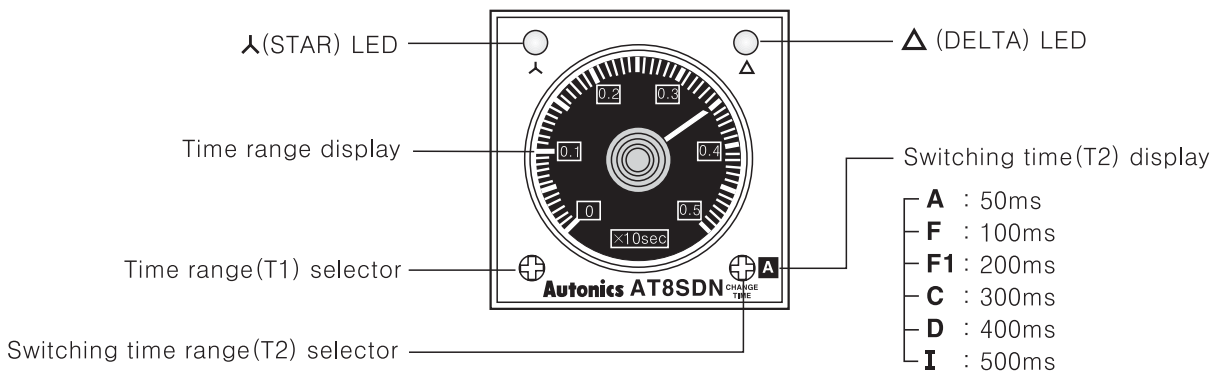


■Dimensions



(Unit:mm)

■Front panel identification



(A)
Counter

(B)
Timer

(C)
Temp.
controller

(D)
Power
controller

(E)
Panel
meter

(F)
Tacho/
Speed/
Pulse
meter

(G)
Display
unit

(H)
Sensor
controller

(I)
Switching
power
supply

(J)
Proximity
sensor

(K)
Photo
electric
sensor

(L)
Pressure
sensor

(M)
Rotary
encoder

(N)
Stepping
motor &
Driver &
Controller

(O)
Graphic
panel

(P)
Production
stoppage
models &
replacement

AT8SDN Series

Time specifications

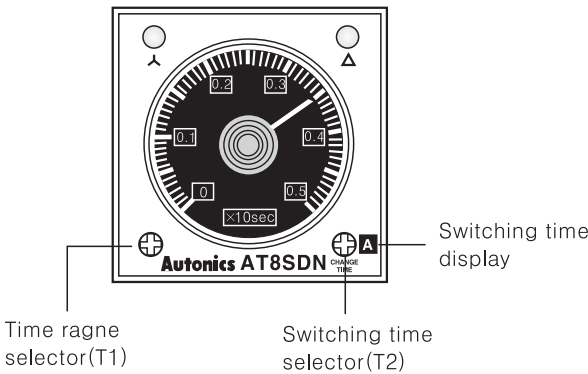
1. T1 (Setting time)

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

2. T2 (Switching time)

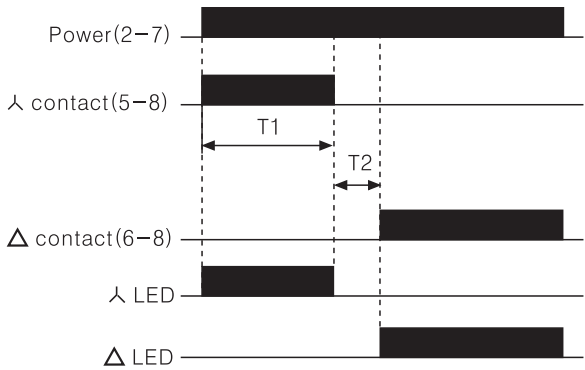
(Unit:ms)

Display	A	F	F1	C	D	I
T2 switching time	50	100	200	300	400	500



Operation

When power is applied, Δ contact will be ON. When reaching to T1 setting time, Δ contact will be OFF and Δ contact will be ON after switching time of T2 is passed. If the power is OFF, Δ contact will be OFF.

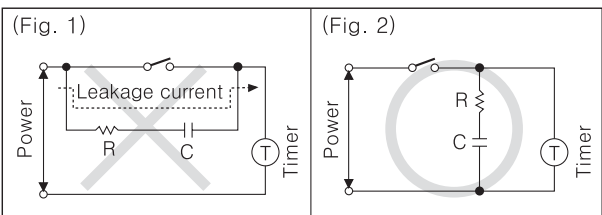


※ T1 : Setting time (Δ contact operation time)

※ T2 : Switching time (Δ contact and Δ contact are OFF simultaneously at power ON)

Proper usage

1. Please supply power quickly at once with using switch or relay contact. Otherwise it may cause time error or power reset failure.
2. The product life cycle can be shortened by generation of heat when applying an electric current for long hours.
3. Please be notice polarity when power is DC power type.
4. Please use it like (Fig. 2) in order not to flow leakage current into timer connecting resistance and condenser.



5. Do not change setting time(T1), time range, switching time(T2) while time oprating.
6. Environment
Please avoid the following places:
 - Where this product may be damaged by strong impact or vibration.
 - Where there are corrosive gas or flammable gas, water, oil and dust.
 - Where magnetic and electrical noise occurs.
 - Where there are High temperature and humidity beyond rated specification.
 - Where there are strong alkalis and acids.
 - Where there are direct rays of sun.