

Autonics ANALOG TIMER

ATS8W/ATS11W SERIES

INSTRUCTION MAUAL



Thank you for choosing our Autonics product.

Please read the following safety considerations before use.

■ Safety Considerations

- ※Please observe all safety considerations for safe and proper product operation to avoid hazards.
- ※Safety considerations are categorized as follows.
- Warning** Failure to follow these instructions may result in serious injury or death.
- Caution** Failure to follow these instructions may result in personal injury or product damage.
- ※The symbols used on the product and instruction manual represent the following
 - ⚠ symbol represents caution due to special circumstances in which hazards may occur.

⚠ Warning

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.** (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)
Failure to follow this instruction may result in personal injury, fire, or economic loss.
- The unit must be installed on a device panel before use.**
Failure to follow this instruction may result in electric shock.
- Do not connect, repair, or inspect the unit while connected to a power source.**
Failure to follow this instruction may result in electric shock.
- Do not disassemble or modify the unit. Please contact us if necessary.**
Failure to follow this instruction may result in electric shock or fire.

⚠ Caution

- Do not use the unit outdoors.**
Failure to follow this instruction may result in shortening the life cycle of the unit, or electric shock.
- Use the unit within the rated specifications.**
Failure to follow this instruction may result in shortening the life cycle of the unit, or fire.
- Do not use loads beyond the rated switching capacity of the relay contact.**
Failure to follow this instruction may result in insulation failure, contact melt, contact failure, relay broken, or fire.
- Do not use water or oil-based detergent when cleaning the unit. Use dry cloth to clean the unit.**
Failure to follow this instruction may result in electric shock or fire.
- Do not use the unit where flammable or explosive gas, humidity, direct sunlight, radiant heat, vibration, or impact may be present.**
Failure to follow this instruction may result in fire or explosion.
- Keep dust and wire residue from flowing into the unit.**
Failure to follow this instruction may result in fire or product damage.

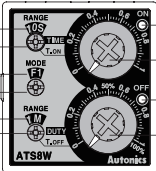
■ Ordering Information

| | | | | | | |
|-----|---|---|---|---|---|---------------------|
| ATS | 8 | W | - | 4 | 1 | |
| | | | | | | Time range |
| | | | | | | 1 |
| | | | | | | 3 |
| | | | | | | Power supply |
| | | | | | | 1 |
| | | | | | | 2 |
| | | | | | | 4 |
| | | | | | | Time operation |
| | | | | | | W |
| | | | | | | Number of plug pins |
| | | | | | | 8 |
| | | | | | | 11 |
| | | | | | | Item |
| | | | | | | ATS |
| | | | | | | Small Analog Timer |

※Sockets (PG-08, PS-08(N), PS-M8, PG-11, PS-11(N)) are sold separately.

■ Unit Description

- ON time / cycle range display part
- ON time / cycle range setting switch
- Output operation mode display part (F1, F2, F3, N1, N2, N3 mode)
- Output operation mode setting switch
- OFF time range display part
- OFF time range setting switch
- ON operation indicator (red)
- ON time/cycle setting dial
- OFF operation indicator (green)
- OFF time/ON duty (%) setting dial

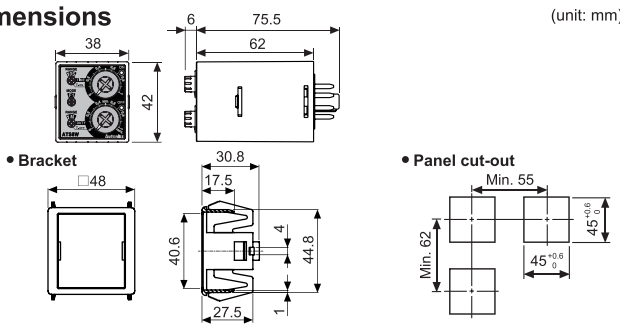


■ Time Specifications

| Model | Time range | Time unit | Time setting range | Model | Time range | Time unit | Time setting range |
|----------|------------|---------------|--------------------|----------|---------------|-----------|--------------------|
| ATS□W-□□ | 1S | SEC | 0.1 to 1 sec | ATS□W-□□ | 1S | SEC | 0.3 to 3 sec |
| | 10S | | 1 to 10 sec | | 10S | | 3 to 30 sec |
| | 1M | | 0.1 to 1 min | | 1M | | 0.3 to 3 min |
| | 10M | 1 to 10 min | 10M | | 3 to 30 min | | |
| | 1H | 0.1 to 1 hour | 1H | | 0.3 to 3 hour | | |
| | 10H | 1 to 10 hour | 10H | | 3 to 30 hour | | |

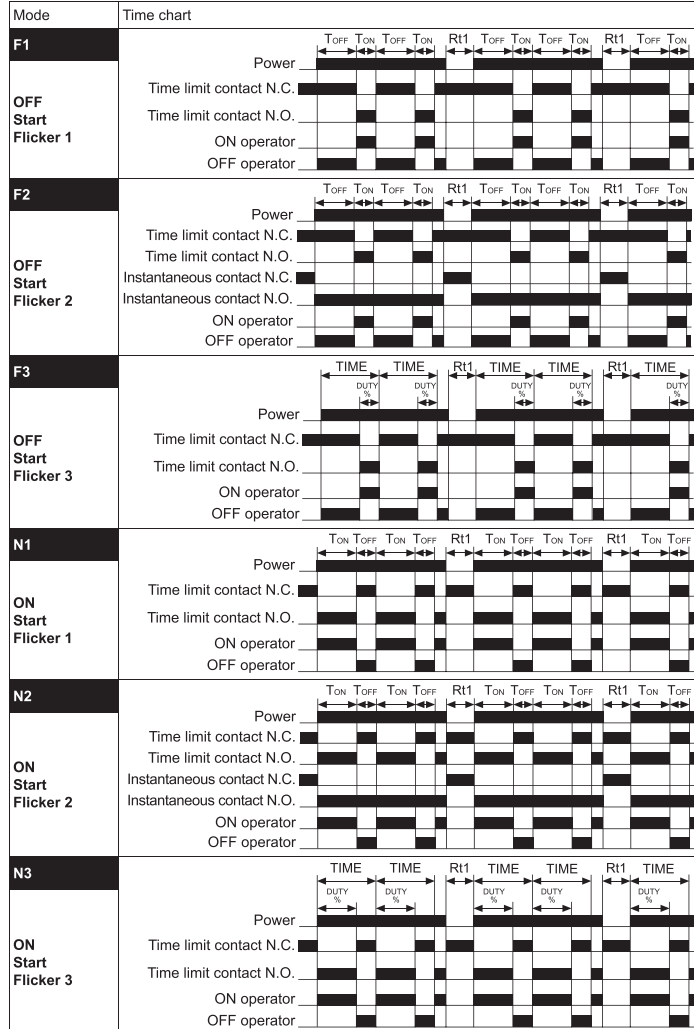
※The above specifications are subject to change and some models may be discontinued without notice.

■ Dimensions



■ Output Operation Mode

[T_{ON}: ON Setting time, T_{OFF}: OFF Setting time, TIME: Cycle, DUTY: ON time duty rate, Rt: Return time, Rt1>Rt]



※Setting time should be over 100ms. If not, it may cause abnormal output operation due to under 100ms of setting time.

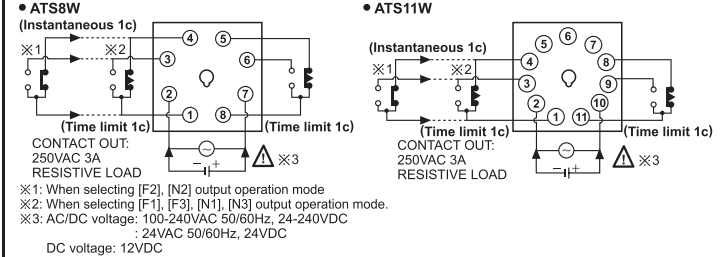
※[F3], [N3] mode operates flicker by setting cycle (TIME) and ON duty (%). ON time range changes to cycle (TIME) range and OFF time range changes to ON duty (%).

■ Specifications

| Model | ATS8W-1 | ATS11W-1 | ATS8W-3 | ATS11W-3 |
|--|---|--|------------------|--------------------|
| Function | ON/OFF Flicker operation | | | |
| Control time setting range ^{※1} | 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 | •Max. 4.2VA (100-240VAC), Max. 2W (24-240VDC) •Max. 4.5VA (24VAC), Max. 2W (24VDC) | | | •Max. 1.5W (12VDC) |
| Return time | Max. 100ms | | | |
| Time operation | Power ON Start | | | |
| Control output | Contact type | Time limit DPDT (2c) or Instantaneous SPDT (1c)+Time limit SPDT (1c) selectable by output operation mode | | |
| | Contact capacity | 250VAC 3A resistive load | | |
| Relay life cycle | Mechanical | Min. 10,000,000 operations | | |
| | Electrical | Min. 100,000 operations (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 | 2,000VAC 50/60Hz for 1 minute | | | |
| Noise resistance | ±2kV the square wave noise (pulse width 1μs) by noise simulator | | | |
| Vibration | Mechanical | 0.75mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each X, Y, Z direction for 1 hour | | |
| | Malfunction | 0.5mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each X, Y, Z direction for 10 min | | |
| Shock | Mechanical | 300m/s ² (approx. 30G) in each X, Y, Z direction 3 times | | |
| | Malfunction | 100m/s ² (approx. 10G) in each X, Y, Z direction 3 times | | |
| Environment | Ambient temp. | -10 to 55°C, Storage: -25 to 65°C | | |
| | Ambient humid. | 35 to 85%RH, Storage: 35 to 85%RH | | |
| Approval | CE, VDE | | | |
| Accessory | Bracket | | | |
| Weight ^{※2} | Approx. 100g (approx. 75g) | | | |

- ※1: Refer to time specifications for control time setting range by model.
- ※2: The weight includes packaging. The weight in parentheses is for unit only.
- ※Environment resistance is rated at no freezing or condensation.

■ Connections



■ Cautions During Use

- 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, apply the rated power at the moment by switch, relay, etc. Otherwise it might cause malfunction.
 - [F3], [N3] mode operates flicker by setting cycle (TIME) and ON duty (%). ON time range changes to cycle (TIME) range and OFF time range changes to ON duty (%).
 - When supply the power to the Timer, connection shown in Figure 1 might cause malfunction due to leakage current through R and C. 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. 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
- ※Failure to follow these instructions may result in product damage.

■ 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/Cutting System
- Temperature Controllers
- Temperature/Humidity Transducers
- SSRs/Power Controllers
- Counters
- Timers
- Panel Meters
- Tachometers/Pulse (Rate) Meters
- Display Units
- Sensor Controllers

Autonics Corporation
http://www.autonics.com

Autonics electronic (Jiaxing) Corporation
#301 YUNHAI ROAD, Jiaxing, Zhejiang, China
Tel : 0573-82161900
Fax : 0573-82161917
Hot Line : 800-857-3141
400-826-7709