# ATE8 Series

## DIN W48×H48mm Analog Timer

### ▣ Features

- DIN W48×H48mm
- Easy and simple time setting
- Cost-effective
- Easy time setting
- Wide range of time
- Power supply: 100-240VAC 50/60Hz, 24-240VDC

**Shaded parts(▣) are changed and added functions from previous ATE Series.**

⚠ **Please read "Safety Considerations" in operation manual before using.**

CE  c♨us



### ▣ Ordering Information

| ATE | 8 | – | 4 | 3 | D |

| Control output | | |
|---|---|---|
| **No mark** | Time limit SPDT (1c)+Instantaneous SPST (1a) | |
| **D** | Time limit DPDT (2c) | |
| **E** | Time limit SPDT (1c)+Instantaneous SPDT (1c) | |

Time range

| **1** | 1 sec/10 sec/1 min/10 min/1 hour |
|---|---|
| **3** | 3 sec/30 sec/3 min/30 min/3 hour |
| **6** | 6 sec/60 sec/6 min/60 min/6 hour |
| **C** | 12 sec/12 min/24 min/12 hour/24 hour |

Power supply

| **4** | 100-240VAC 50/60Hz, 24-240VDC |
|---|---|
| **8** | 8-pin plug type |

Number of plug pins

| **ATE** | Analog timer |
|---|---|

Item

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

### ▣ Specifications

| Model | ATE8-4□ | ATE8-4□D | ATE8-4□E |
|---|---|---|---|
| Function | **Power ON Delay Timer** | | |
| Control time setting range[※1] | 0.1 sec to 24 hour | | |
| Power supply | 100-240VAC∼ 50/60Hz, 24-240VDC⎓ | | |
| Permissible voltage range | 90 to 110% of rated voltage | | |
| Power consumption | Max. 3.5VA (100-240VAC⎓ 50/60Hz), Max. 2.0W (24-240VDC⎓) | | |
| Return time | Max. 200ms | | |
| Time operation | Power ON Start | | |
| Control output — Contact type | Time-limit SPDT (1c)+ Instantaneous SPST (1a) | Time-limit DPDT (2c) | Time-limit SPDT (1c)+ Instantaneous SPDT (1c) |
| Control output — Contact capacity | 250VAC∼ 3A resistive load | | |
| Relay life cycle — Mechanical | Min. 5,000,000 operations | | |
| Relay life cycle — Electrical | Min. 100,000 operations (250VAC 3A resistive load) | | |
| Repeat error | Max. ±0.3% ±0.01 sec | | |
| Set error | Max. ±5% ±0.05 sec | | |
| Voltage error | Max. ±0.5% ±0.01 sec | | |
| Temp. error | Max. ±2% ±0.01 sec | | |
| Insulation resistance | Over 100MΩ (at 500VDC megger) | | |
| Dielectric strength | 2,000VAC 50/60Hz for 1min | | |
| Noise immunity | ±2kV the square wave noise (pulse width 1µs) by noise simulator | | |
| Vibration — Mechanical | 0.75mm amplitude at frequency 10 to 55Hz (for 1min) in each X, Y, Z direction for 1 hour | | |
| Vibration — Malfunction | 0.5mm amplitude at frequency 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 for 3 times | | |
| Shock — Malfunction | 100m/s$^2$ (approx. 10G) in each X, Y, Z direction for 3 times | | |
| Environment — Ambient temp. | -10 to 55℃, storage: -25 to 65℃ | | |
| Environment — Ambient humid. | 35 to 85%RH, storage: 35 to 85%RH | | |
| Protection structure | IP40 (front part, IEC standard) | | |
| Approval | CE c♨us | | |
| Weight[※2] | Approx. 122.2g (approx. 75g) | | |

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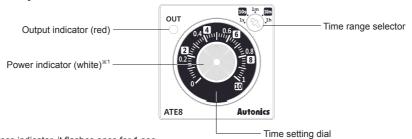※2: The weight includes packaging. The weight in parenthesis is for unit only.
※Environment resistance is rated at no freezing or condensation.

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## ◾ Unit Description

Output indicator (red)

Power indicator (white)※1

OUT

ATE8
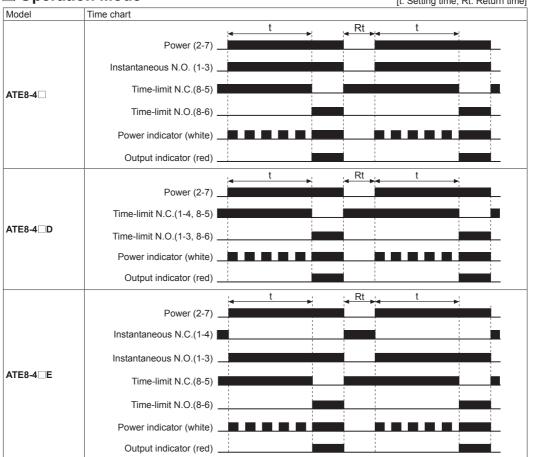
**Autonics**

Time range selector

Time setting dial

※1: As time progress indicator, it flashes once for 1 sec.

## ◾ Time Specifications

| Model | Time range | Time unit | Time setting range | Model | Time range | Time unit | Time setting range |
|---|---|---|---|---|---|---|---|
| **ATE8-41☐** | 1 | s | 0.1 to 1 sec | **ATE8-46☐** | 6 | s | 0.6 to 6 sec |
| | 10 | | 1 to 10 sec | | 60 | | 6 to 60 sec |
| | 1 | m | 0.1 to 1 min | | 6 | m | 0.6 to 6 min |
| | 10 | | 1 to 10 min | | 60 | | 6 to 60 min |
| | 1 | h | 0.1 to 1 hour | | 6 | h | 0.6 to 6 hour |
| **ATE8-43☐** | 3 | s | 0.3 to 3 sec | **ATE8-4C☐** | 12 | s | 1.2 to 12 sec |
| | 30 | | 3 to 30 sec | | 12 | m | 1.2 to 12 min |
| | 3 | m | 0.3 to 3 min | | 24 | | 2.4 to 24 min |
| | 30 | | 3 to 30 min | | 12 | h | 1.2 to 12 hour |
| | 3 | h | 0.3 to 3 hour | | 24 | | 2.4 to 24 hour |

## ◾ Operation Mode

[t: Setting time, Rt: Return time]

| Model | Time chart |
|---|---|
| **ATE8-4☐** | Power (2-7)<br>Instantaneous N.O. (1-3)<br>Time-limit N.C.(8-5)<br>Time-limit N.O.(8-6)<br>Power indicator (white)<br>Output indicator (red) |
| **ATE8-4☐D** | Power (2-7)<br>Time-limit N.C.(1-4, 8-5)<br>Time-limit N.O.(1-3, 8-6)<br>Power indicator (white)<br>Output indicator (red) |
| **ATE8-4☐E** | Power (2-7)<br>Instantaneous N.C.(1-4)<br>Instantaneous N.O.(1-3)<br>Time-limit N.C.(8-5)<br>Time-limit N.O.(8-6)<br>Power indicator (white)<br>Output indicator (red) |

※When time-limit of ATE8-4☐, ATE8-4☐E is set to 0, time-limit contact operates within 30ms right after instantaneous contact operation.

(A)
Photoelectric
Sensors

(B)
Fiber
Optic
Sensors

(C)
Door/Area
Sensors

(D)
Proximity
Sensors

(E)
Pressure
Sensors

(F)
Rotary
Encoders

(G)
Connectors/
Connector Cables/
Sensor Distribution
Boxes/Sockets

(H)
Temperature
Controllers

(I)
SSRs / Power
Controllers

(J)
Counters

(K)
Timers

(L)
Panel
Meters

(M)
Tacho /
Speed / Pulse
Meters

(N)
Display
Units

(O)
Sensor
Controllers

(P)
Switching
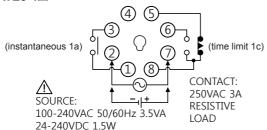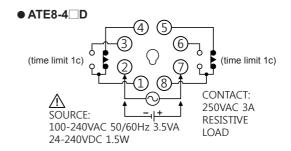Mode Power
Supplies

(Q)
Stepper Motors
& Drivers
& Controllers
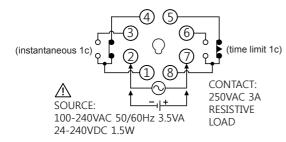
(R)
Graphic/
Logic
Panels

(S)
Field
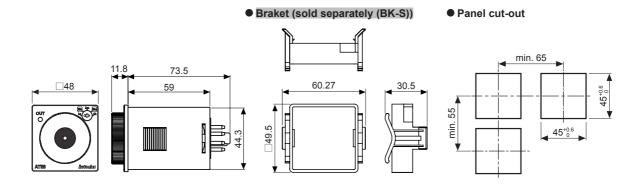Network
Devices

(T)
Software

# ATE8 Series

## ◨ Connections

● **ATE8-4☐**

(instantaneous 1a)

SOURCE:
100-240VAC 50/60Hz 3.5VA
24-240VDC 1.5W

(time limit 1c)

CONTACT:
250VAC 3A
RESISTIVE
LOAD

● **ATE8-4☐D**

(time limit 1c)

(time limit 1c)

SOURCE:
100-240VAC 50/60Hz 3.5VA
24-240VDC 1.5W

CONTACT:
250VAC 3A
RESISTIVE
LOAD

● **ATE8-4☐E**

(instantaneous 1c)

(time limit 1c)

SOURCE:
100-240VAC 50/60Hz 3.5VA
24-240VDC 1.5W

CONTACT:
250VAC 3A
RESISTIVE
LOAD

## ◨ Dimensions

(unit: mm)

※Nameplate design is changed and rear length is shorten than previous.

● **Braket (sold separately (BK-S))**

● **Panel cut-out**

☐48

11.8   73.5

59

44.3

☐49.5

60.27

30.5

min. 65

min. 55

$45^{+0.6}_{0}$

$45^{+0.6}_{0}$

● **Socket (sold separately)**

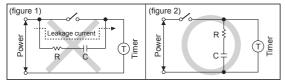| PG-08 | PS-08(N) |
|---|---|
| 21 16 Ø25 38 31 41 | 50 40 23.5 19 14 2-Ø4.5 70 35 4 |

K-76

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## ◨ **Proper Usage**

- When supplying the power to the timer, use switch, or relay, etc for instant supply. When supplying power slowly, it may cause malfunction.
- When supply the power to the timer, connection shown in (figure 1) might cause malfunction due to circuitous leakage current through resistance (R) and condenser (C). Please connect resistance (R) and condenser (C) as shown in (figure 2) to prevent malfunction due to circuitous leakage current.



- Connect bipolar output contacts as potential.
- Testing dielectric voltage or insulation resistance when the unit is installed at control panel
  ①Isolate the unit from the circuit of control panel.
  ②Short all terminals of the unit.
- Do not use the unit in the following environments.
  ①Environments with high vibration or shock.
  ②Environments with strong alkali or strong acid materials
  ③Environments with exposure to direct sunlight
  ④Near machinery which produces strong magnetic force or electric noise
- This product may be used in the following environments.
  ①Indoor
  ②Altitude max. 2,000m
  ③Pollution degree 2
  ④Installation category II

(A)
Photoelectric
Sensors

(B)
Fiber
Optic
Sensors

(C)
Door/Area
Sensors

(D)
Proximity
Sensors

(E)
Pressure
Sensors

(F)
Rotary
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Connector Cables/
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(K)
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Meters

(M)
Tacho /
Speed / Pulse
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(O)
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(P)
Switching
Mode Power
Supplies

(Q)
Stepper Motors
& Drivers
& Controllers

(R)
Graphic/
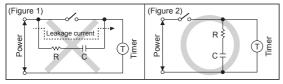Logic
Panels

(S)
Field
Network
Devices

(T)
Software

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- This product may be used in the following environments.
  ①Indoor
  ②Altitude max. 2,000m
  ③Pollution degree 2
  ④Installation category II