# DIN W48×H48mm Solid state ON Delay timer

### Features

- DIN W48×H48mm
- Easy and simple time setting
- Cost-effective
- Easy time setting
- Wide range of time
- Power supply
- ATE : 110/220VAC 50/60Hz
- ATE1, ATE2 : 110VAC, 220VAC 50/60Hz, 12VDC, 24VDC(option)







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

# Ordering information

ATE	-  1	0   S		
			S	sec.(1, 3, 6, 10, 30, 60)
			М	min.(3, 6, 10, 30, 60)
			Н	hour(3, 6, 12, 24)
		Time range	Number	Max. time range
	Output		No mark	Time-limit SPDT(1c), Instantaneous SPST(1a)
			1	Time-limit DPDT(2c)
			2	Time-limit SPDT(1c), Instantaneous SPDT(1c)
Item			ATE	ON Delay timer

# Specifications

Model		ATE – S M H	ATE1 – S M H	ATE2 – S M H		
Function		Power ON Delay				
Control time setting range		sec.(1, 3, 6, 10, 30, 60), min.(3, 6, 10, 30, 60), hour(3, 6, 12, 24)				
Power supply		110/220VAC 50/60Hz 110VAC, 220VAC 50/60Hz, 12VDC, 24VDC(option)				
Allowable voltage range		90 to 110% of rated voltage				
Power consumption		Approx. 10VA(240VAC 60Hz), Approx. 2W(24VDC, 12VDC)				
Reset time		Max. 200ms				
Timing operation		Power ON start type				
Control	Contact type	Time limit SPDT(1c), Instantaneous SPST(1a)	Time limit DPDT(2c)	Time limit SPDT(1c), Instantaneous SPDT(1c)		
output	Contact capacity	250VAC 3A resistive load				
Relay	Mechanical	Min.10,000,000 operations				
life cycle	Electrical	Min. 100,000 operations(250VAC 3A resistive load)				
Repeat error		Max. ±0.3%				
SET error		Max. ±5% ±0.05sec.				
Voltage error		Max. ±0.5%				
Temperature error		Max. ±2%				
Insulation resistance		100MΩ(at 500VDC megger)				
Dielectric strength		2000VAC 50/60Hz for 1 minute				
Noise strength		$\pm 2kV$ the square wave noise(pulse width : 1µs) by the noise simulator				
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 1 hours				
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 10 minutes				
Shock	Mechanical	300m/s <sup>2</sup> (approx. 30G) in each of X, Y, Z directions for 3 times				
	Malfunction	100m/s <sup>2</sup> (approx. 10G) in each of X, Y, Z directions for 3 times				
Environ	Ambient temperature	-10 to 55°C, storage: -25 to 65°C				
-ment	Ambient humidity	35 to 80%RH				
Unit weight		Approx. 75g				

 $\ensuremath{\mathbbmm{K}}\xspace$  Environment resistance is rated at no freezing or condensation.

# Single Time Range Timer

# Parts description



Max. setting time	Setting range	
1sec	0 to 1sec	
3sec	0 to 3sec	
6sec	0 to 6sec	
10sec	0 to 10sec	
30sec	0 to 30sec	
60sec	0 to 60sec	
3min	0 to 3min	
6min	0 to 6min	
10min	0 to 10min	
30min	0 to 30min	
60min	0 to 60min	
3hour	0 to 3hour	
6hour	0 to 6hour	
12hour	0 to 12hour	
24hour	0 to 24hour	

Time setting range

#### Output operation mode

Model Time chart Rt Power 2-7 Instantaneous N.O. 1-3 ATE Time limit N.C. 8-5 Time limit N.O. 8-6 UP LED Power 2-7 1-4 Time limit N.C. (8-5) ATE1 1-3 Time limit N.O. (8-6) UP LED Rt t t Power 2-7 Instantaneous N.C. 1-4 ATE2 Instantaneous N.O. 1-3 Time limit N.C. 8-5 Time limit N.O. 8-6 UP LED

t : Setting time, Rt : Reset time



(A) Photo electric sensor

(B) Fiber optic sensor

# Connections



# Proper usage

#### **○** Environment

- Please avoid the following places:
- A place where this product may be damaged by strong impact or vibration.
- A place where corrosive gas or flammable gas and water, oil, dust exist.
- A place where magnetic and electrical noise occur.
- A place where high temperature and humidity are beyond rated specification.
- A place where there are strong alkalis and acids.
- A place where there are direct rays of sun.

#### O Noise

- We test 2kV, Pulse width 1μs against Impulse voltage between power terminals and 1kV, Pulse width 1μs at noise simulator against external noise voltage. Please install MP condenser(0.1 to 1μF) or oil condenser between power terminals when over impulse noise voltage occurs.
- When testing dielectric voltage and insulation resistance of the control panel with this unit installed.
- Please isolate this unit from the circuit of control panel.
- Please make all terminals of this unit short-circuited. (It prevents the damage of inner circuit.)