

# Micro processor timer relay

## BT100

### INSTRUCTION MANUAL

Carefully read all the instructions in this manual. Please place this manual in a convenient location for easy reference.

BT02-E1



#### WARNING

- An external protection device must be installed if failure of this instrument could result in damage to the instrument, equipment or injury to personnel.
- All wiring must be completed before power is turned on to prevent electric shock, fire or damage to instrument and equipment.
- This instrument must be used in accordance with the specifications to prevent fire or damage to instrument and equipment.
- This instrument is not intended for use in locations subject to flammable or explosive gases.
- Do not touch high-voltage connections such as power supply terminals, etc. to avoid electric shock.

## 1. PRODUCT CHECK

MODEL	CODE
BT100	① ② ③ ④ ⑤ ⑥ ⑦
(48mm × 48mm × 80mm)	

#### ①. System timer unit

S: second M: minute H: hour

#### ②. Timer displayer decimal point

0: No decimal 1: one decimal 2: two decimal

#### ③. "D1" terminal pad external control function for time start.

- 0: Time start when power on, "D1" for time pause.
- 1: Time start when power on, "D1" for time restart.
- 2: Time standby when power on, "D1" for inching start timer.
- 3: Time standby when power on, "D1" for holding to start timer.
- 4: Time standby when power on, "D1" for inching or holding to start timer.

#### ④. Timer relay control mode (Main out relay action mode)

- 0: OUT relay deferred action. (holding or delay break)
- 1: OUT relay instantaneous action, delay break.
- 2: OUT relay cycle operation (Cycle timer)

#### ⑤. Aux relay action mode (ALM)

- 0: ALM relay instantaneous action.
- 1: ALM relay synchronization action with OUT relay.
- 2: ALM relay self contained function (Process alarm).
- 3: ALM relay self contained function (deviation alarm).

#### ⑥. UP or Down timer: 0: UP timer 1: DOWN timer

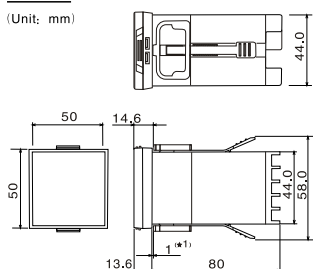
#### ⑦. Power supply

N0 mark: AC220V ± 10%

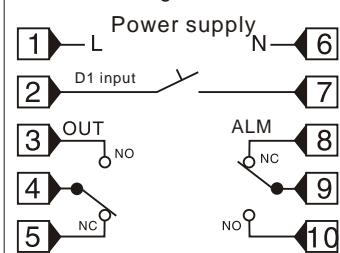
## 2. MOUNTING

#### SIZE

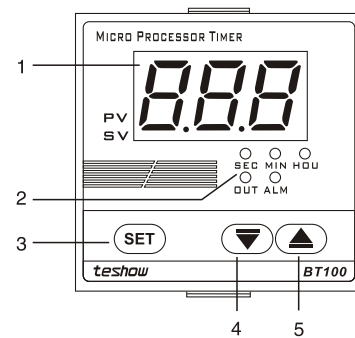
(Unit: mm)



#### Terminal Configuration



## 4. PARTS DESCRIPTION



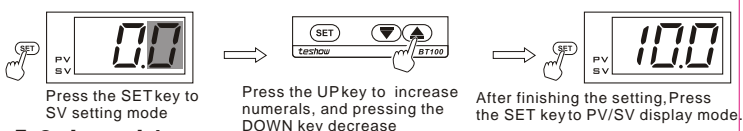
- 1 PV/SV Display timer and set value
- 2 SEC lamp: system timer unit second  
MIN lamp: system timer unit minute  
HOU lamp: system timer unit hour  
OUT lamp: Main output relay action  
ALM lamp: Aux relay action
- 3 SET key, Main function key
- 4 Down key: Decrease numbers
- 5 Up key: Increase numbers

#### CAUTION

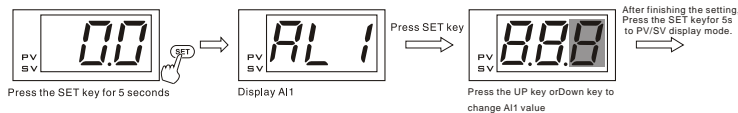
To avoid damage to instrument, never use a sharp object to press keys.

## 5. SETTING

### 5.1 Setting set value (SV)



### 5.2 Level 1



Function	Symbol	Range	Description
Time mode	888	0 to 999 0.0 to 99.9 0.00 to 9.99	Main delay time Value setting (For OUT relay)
AUX timer Setting	AL1	0 to 999 0.0 to 99.9 0.00 to 9.99	AUX delay timer value setting (For ALM relay)
Main relay reset time	r1	0.0 to 99.9s	When OUT select relay deferred action. T1 using for OUT relay reset time after OUT action. When T1=0.0, OUT relay without delay break function
OUT Relay release time	SRP	0 to 999 0.0 to 99.9 0.00 to 9.99	STP value for out relay release action time, when control mode is Cycle timer.
Lock	LCK	0, 1, 2	0: All parameters can be changed 1: Only SV can be changed 2: No parameters can be changed

Press SET key for 5s to return to PV/SV mode.

### 5.3 Level 2



Function	Symbol	Range	Description
Time unit	Unt	Unt	System timer unit 0: second 1: minute 2: hour
Decimal	dP	dP	Timer displayer decimal point 0: No decimal 1: one decimal 2: two decimal
Timer start condition	d1	d1	"D1" terminal pad external control function for time start. 0: Time start when power on, "D1" for time pause. 1: Time start when power on, "D1" for time restart. 2: Time standby when power on, "D1" for inching start timer. 3: Time standby when power on, "D1" for holding to start timer. 4: Time standby when power on, "D1" for inching or holding to start timer.
Control mode	OT	OT	Timer relay control mode (Main out relay action mode) 0: OUT relay deferred action. (holding or delay break) 1: OUT relay instantaneous action, delay break. 2: OUT relay cycle operation (Cycle timer)
AUX alarm mode	ALd	ALd	Aux relay action mode (ALM) 0: ALM relay instantaneous action. 1: ALM relay synchronization action with OUT relay. 2: ALM relay self contained function (Process alarm). 3: ALM relay self contained function (deviation alarm).
UP/DOWN timer	rUN	rUN	UP or Down timer. 0: UP timer 1: DOWN timer

Press the SET key for 5s to return to PV/SV mode

**NOTE** When no parameter settings is required, after the value be registered, you can press "SET" key for 5s to return the instrument to the PV/SV display

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