

# TC-8000 ELECTRONIC CONTROLLER

## (INCREASING OUTPUT-PROPORTIONAL AND INTEGRAL)

### DESCRIPTION

TC-8000 electronic controller is used in central air-conditioning, heating and cooling system. It makes set with TSC series temperature sensor. It can output increasing signal in proportional and integral control arithmetic way to adjust reversible motor actuator so as to control the temperature of the controlled system.



### CHARACTERISTICS

- Inside or long-distance resistor variable temperature sensitive element (NTC thermistor).
- Set point adjustment: concealed/decorated mount or long distance type.
- The dial of the controller, which has visible adjustment set point, is locked by a transparent cover avoid the set point changed by the person not permitted.
- The output can be changed over: Direct (DA) or Reversible (RA), by the inside jumper or long-distance centralized switch (or SPST if needed).
- Adjustable proportional band.
- Spare set point.
- Flexible installation: wall-mounted, embedded, embedded in plate, concealed in the fan coil, in the terminal unit etc.

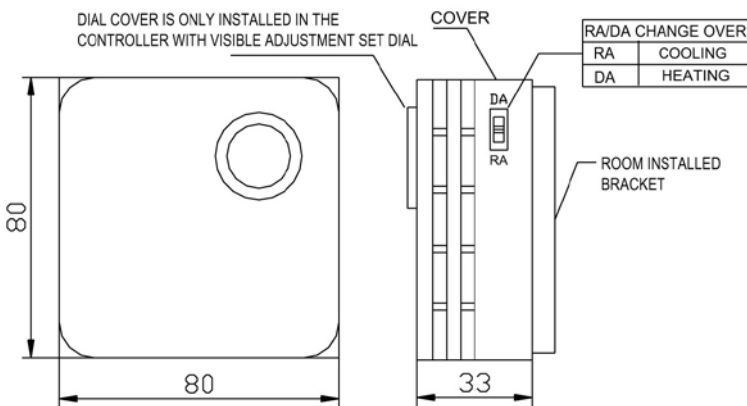
### SPECIFICATIONS

PRODUCT NAME	TC-8000 electronic controller, increasing output
FUNCTION	Proportional and Integral, direct or reversible
MODEL	See Sheet 1
POWER SUPPLY VOLTAGE	24VAC $\pm$ 10%, 50/60Hz
OUTPUT SIGNAL	24VAC X 2 (0.5A), by bi-directional silicon controlled rectifier
COMSUMPTION	2VA (80mA) without load
INTEGRAL TIME	5 or 2.5 minutes (set by the internal jumper)
SENSITIVE ELEMENT	NTC thermistor
WIRING CONNECTION	Terminal connection, 1.5mm <sup>2</sup> wires
HOUSING	Flameproof ABS plastic (UL94V-0)
WORKING AMBIENT TEMPERATURE	0~50°C $\leq$ 90% RH non-condensation
STORAGE TEMPERATURE	- 10~40°C
NET WEIGHT	120g
ACCESSORIES FOR OPTIONAL	Long-distance temperature sensor (Ordered separately)
EX-FACTORY SETTING	RA state

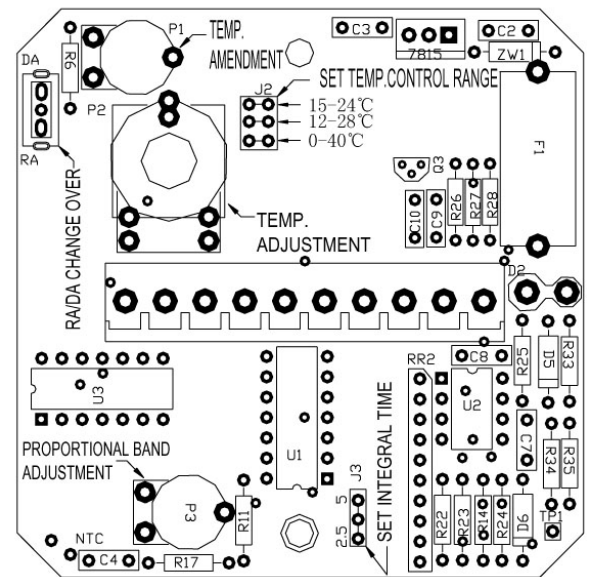
# SHEET 1 TC-8000 MODEL AND TEMPERATURE SETTING RANGE

MODEL	TEMPERATURE SETTING RANGE
TC – 8312 – 11	External sensor, control range 0~40°C, with Winter/Summer change over switch
TC – 8312 – 12	External sensor, control range 12~28°C, with Winter/Summer change over switch
TC – 8312 – 13	External sensor, control range 0~120°C, with Winter/Summer change over switch
TC – 8322 – 11	Internal sensor, control range 0~40°C, with Winter/Summer change over switch
TC – 8322 – 12	Internal sensor, control range 12~28°C, with Winter/Summer change over switch
TC – 8322 – 13	Internal sensor, control range 0~120°C, with Winter/Summer change over switch

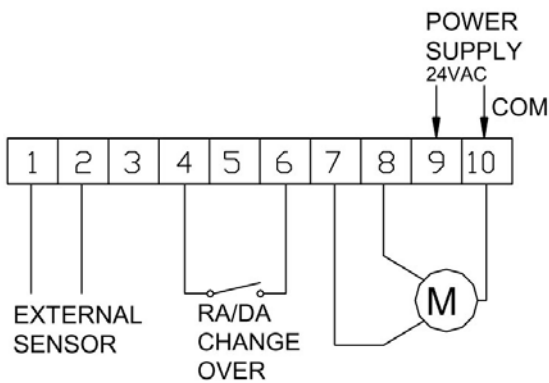
## DIMENSIONS (mm):



## FUNCTION SETTING DIAGRAM:



## WIRING DIAGRAM



JUMPER POSITION	CONTROLLED VARIABLE VALUE	TERMINAL POWER ON	
		7 & 9	8 & 9
RA	>SET POINT	1	0
	=SET POINT	0	0
	<SET POINT	0	1
DA	>SET POINT	0	1
	=SET POINT	0	0
	<SET POINT	1	0

1 means connect  
0 means disconnect

\* All the data will be changed without prior notice.