

# DTB Advanced Type

Compared to the DTA, DTB has an added linear voltage output and adopts dual-loop output control, able to execute heating and cooling controls at the same time in a temperature control system.

DTB series has a built-in delete RS-485 communication interface (MODBUS ASCII/RTU, 2,400 ~ 38,400bps).

The programmable PID control function allows DTB to set up 64 sets of temperature and control time.

Optional functions:

- CT (current transformer), output by alarm.
- EVENT function, switching between 2 SVs by using PLC or switches.
- Valve models are able to adjust the openness of valve depending on the SV.



## Electrical Specifications

Power supply	100 ~ 240VAC, 50/60Hz
Voltage range	85 ~ 110% rated voltage
Power consumption	< 5VA
Display	2-line 7-segment LED display, 4 digits available, PV: red, SV: green
Input temperature sensors	Thermocouple: K, J, T, E, N, R, S, B, L, U, TXK
	Platinum RTD: Pt100, JPt100
	Analog input: 0 ~ 5V, 0 ~ 10V, 0 ~ 20mA, 4 ~ 20mA, 0 ~ 50mA
Display scale	1 digit after decimal point, or no decimal point
Control methods	PID, programmable PID, ON/OFF, Manual
Output types	Relay: SPDT (DTB4848/4824: SPST), Max. load: 250VAC, Resistive load: 5A
	Voltage pulse: 14VDC, Max. output current: 40mA
	Current: DC 4 ~ 20mA (Load resistance: < 600Ω)
	Analog voltage: 0 ~ 10V
Sampling rate	Analog input: 0.15 second, Thermocouple or platinum RTD: 0.4 second
Communication	RS-485 digital communication, 2,400 ~ 38,400bps
Communication protocol	MODBUS protocol, ASCII/RTU format
Vibration resistance	10 ~ 55Hz, 10m/s <sup>2</sup> for 10 mins in X, Y, Z direction
Shock resistance	Max. 300m/s <sup>2</sup> , 3 times in each of 3 axes, 6 directions
Ambient temperature	0 ~ 50°C
Storage temperature	-20~ +65°C
Altitude	< 2,000m
Ambient humidity	35 ~ 80% RH (non-condensing)
Waterproof Degree	Ip56

# Ordering Information

## DTB

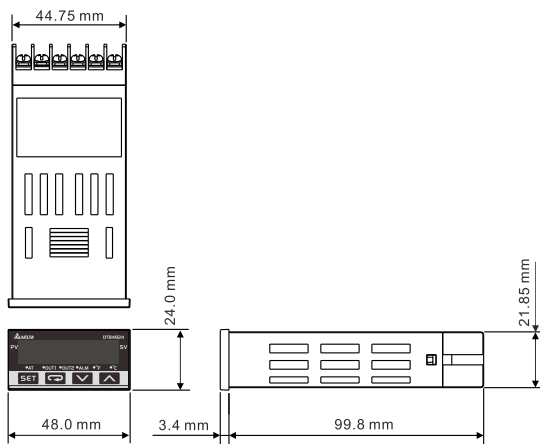
1 2 3 4 5 6 7

Series Name	DTB : Delta B series temperature controller	
1 2 3 4 Panel Size (W x H)	4824 : 1/32 DIN W48 x H24 mm 4848 : 1/16 DIN W48 x H48 mm	4896 : 1/8 DIN W48 x H96 mm 9696 : 1/4 DIN W96 x H96 mm
5 Output 1	R : Relay, SPDT (4824/4848: SPST), 250VAC, 5A V : Voltage pulse: 14V +10% ~ -20% C : DC current: 4 ~ 20mA L : Linear voltage: 0 ~ 5V, 0 ~ 10VDC	
6 Output 2	R : Relay, SPDT (4824/4848: SPST), 250VAC, 5A V : Voltage pulse: 14V +10% ~ -20%	
7 Optional Function	□ : Without CT, without EVENT input ┘ : With CT, without EVENT input	E : Without CT, with EVENT input ∨ : Valve control

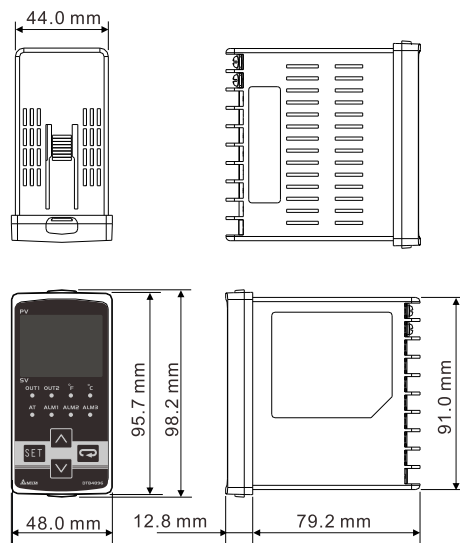
\*DTB4824 has no optional function and no extra alarm output. Output 2 can be set to alarm output.  
 \*DTB4848 has only 1 optional alarm output. Output 2 can be set to the 2<sup>nd</sup> alarm output.  
 \*DTB9696 has optional valve control function. Model name: DTB9696RRV.

## Dimensions

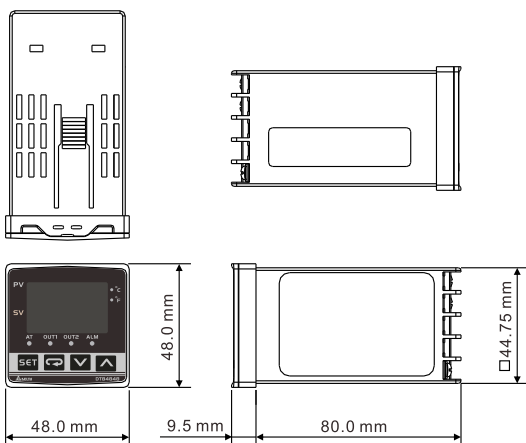
### 4824



### 4896



### 4848



### 9696

