



DIGITAL CONTROLLER



TTX-800

2ch Module-Type Controller



■ Features:

- * White LED provides better visibility.
- * DIN Track-mounting type 2ch controller.
- * Built-in display and key switch allow the user to set each parameter directly on the unit.
- * Connecting the main unit with coupling connector allows the user to connect the power source and the RS-485 communication without the need for the transition wiring of the terminal board (up to 10 units can be connected).

■ Input Specifications

Input Type	Thermocouple	K, J, T, E, R, S, B, N, U, L, WRe5-26, PR40-20, PL II	Thermocouple and resistance temperature detector inputs, current and voltage inputs are to be selected at parameter settings
	RTD	PT100, JPt100 (external resistance 10Ω or less (per wire); resistance of 3 lines must be the same)	
	Current and Voltage	DC4-20mA (input resistance 250Ω), DC0-1V, 0-5V, 0-10V (input resistance 1MΩ or higher)	
Sampling Cycle		100ms	
Settings and Indication Accuracy (Ambient Temperature 23°C±10°C)	Thermocouple	K, J, T, E, R, S, B, N	±(0.3%±1 digit) or ±2°C of input value, whichever is larger Provided that -100-0°C is ±3°C and -200--100°C is ±4°C B thermocouple with lower than 400°C has no regulation
		U, L	±(0.3%±1 digit) or ±4°C of input value, whichever is larger Lower than 0°C is ±6°C
		WRe5-26	±(0.6%±1 digit) or ±4°C of input value, whichever is larger
		PR40-20	±9.4°C ±1 digit Lower than 800°C has no regulation
		PL II	±(0.3%±1 digit) or ±2°C of input value, whichever is larger
	RTD	PT100, JPt100	±(0.3%±1 digit) or ±0.9°C of input value, whichever is larger
Current and Voltage	DC4-20mA, DC0-1V, 0-5V, 1-5V, 0-10V	±0.3% of FS±1 digit	

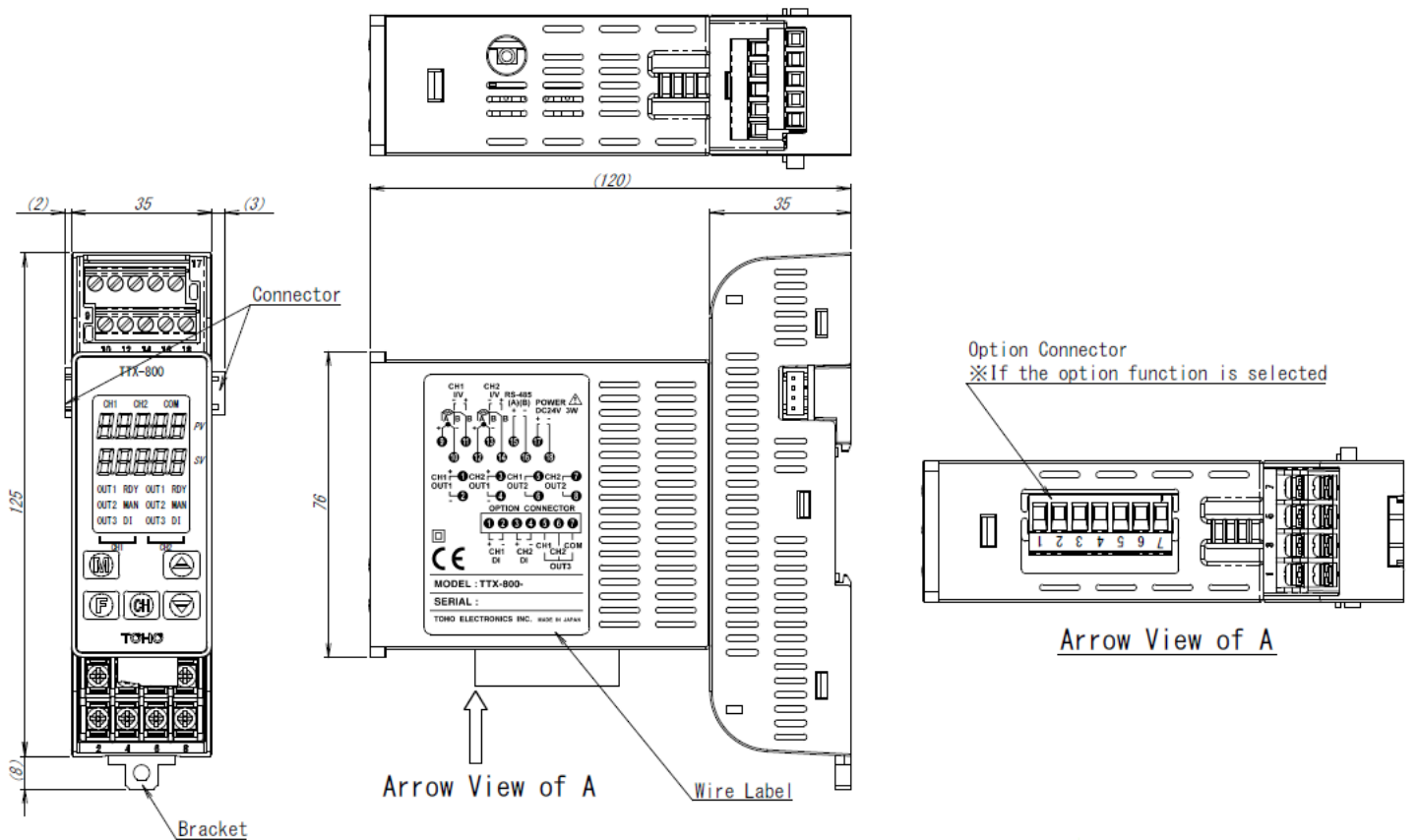
■ Output Specifications

Control Output	Output 1	Relay Contact	AC250V 3A (resistance load) 1a contact point Min. load DC5V 10mA
		Voltage Output for SSR Drive	DC0-12V±10% (load resistance 600Ω or higher)
		Current	DC4-20mA (load resistance 600Ω or lower)
	Output 2	Relay Contact	AC250V 1A (resistance load) 1a contact point Min. load DC5V 10mA
	Output 3	Open Collector	DC28V 100mA

■ Option Specifications

DI Input (Max. 2 points)	DI 1, 2	Input Specifications	Nonvoltage contact point. Active switching per input is possible.
		Minimum Input Time	200ms
		Current During ON	Approx. DC10mA
		Voltage During OFF	Approx. DC5V
		Allowable Resistance Between Terminals	During ON: 1kΩ or lower During OFF: 4kΩ or higher
Communication	Communication Standard	RS-485 (1:31)	
	Communication Terminal	Terminal board	
	Protocol	MODBUS (RTU)/(ASCII)	
	Direction of Information	Half-duplex	
	Synchronization System	Start-stop synchronization	
	Transmission Code	ASCII	
	Interface	RS-485 (2 lines)	
	Communication Speed	2400· 4800· 9600· 19200· 38400bps	
	Communication Distance	500m (value may vary depending on the usage environment)	
	Response Delay Time	0~250ms	
	Character	Start Bit: 1 bit fixed	
		Stop Bit: 1/2 bit	
		Data Length: 7/8 bit	
Parity: None/Odd/Even			
BCC Checking: With/Without * For MODBUS: · · BCC checking is disabled			
Address: 1-99 stations * For MODBUS: · · 1-247 stations			

■ Dimensions and Terminal Connection



■ List of Models for Selection

TTX-800- - -

① ② ③ ④ ⑤ ⑥

① OUT1 (ch1)	R	Relay Contact	⑥ Selection of Parameter Initial Settings	2 Input Individual Control Specifications		
	P	Voltage Output for SSR Drive		1	1 Input Heating and Cooling Control Output Specifications	OUT2 needs to be selected
	I	Current 4-20mA		2	2 Input Heating and Cooling Control Output Specifications	OUT2 needs to be selected
② OUT1 (ch2)	R	Relay Contact		3	Cascade Control Specifications	
	P	Voltage Output for SSR Drive		4	Remote Control Specifications	
	I	Current 4-20mA		5	Position Ratio Control Output Specifications	OUT2 needs to be selected
③ OUT2 (ch1, ch2)		OFF		6	Temperature and Humidity Control Specifications	
	A	Relay Contact		7	Channel Difference Input Specifications	
④ OUT3 (ch1, ch2)		OFF		8	Channel Addition Input Specifications	
	B	Open Collector		9	1 Input 2 Output Specifications	OUT2 needs to be selected
⑤ DI (ch1, ch2)		OFF		10	Transmission Output Specifications	OUT1 = II needs to be selected
	E	Contact Point Input		11	1ch Alarm Specifications	
				12	2ch Alarm Specifications	
				13	1ch Converter Specifications	OUT1 = I□ needs to be selected
				14	2ch Converter Specifications	OUT1 = II needs to be selected
				15	1ch Ratio Converter	OUT1 = I□ needs to be selected
			16	2ch Ratio Converter	OUT1 = II needs to be selected	