#### C200H-TC

# Temperature Control Units

# One Unit Functions as Two Temperature Controllers

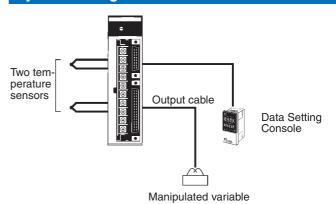
- Supports 2-loop PID control (two degrees of freedom) or ON/OFF control.
- Input directly from two temperature sensors (thermocouples: R, S, K, J, T, E, B, N, L, or U) or platinum resistance thermometers (JPt00, Pt100).
- · Open-collector, voltage, or current outputs
- · Sampling period: 500 ms
- · Run/start control.
- Two internal alarms per loop.
- Detects heater burnout though current detectors for both loops.
- Record up to eight sets of target values, alarm values, and PID parameters.
- · Connects to Data Setting Console.



#### **Function**

Perform 2-loop PID control based on inputs from thermocouples or platinum resistance thermometers to control a transistor, voltage, or current output. Words allocated to the Unit in memory can be manipulated from the ladder diagram to start/stop operation, set the target value, read the process value, or perform other operations.

#### **System Configuration**



#### **Specifications**

#### General

Classification	Temperature sensor inputs	Control outputs	Unit numbers	Model
C200H Special I/O Unit	Thermocouples (R, S, K, J, T, E,	Open-collector (pulse)	0 to 9	C200H-TC001
	B, N, L, or U)	Voltage (pulse)		C200H-TC002
		Current (linear)		C200H-TC003
	Platinum resistance thermome-	Open-collector (pulse)		C200H-TC101
	ters (JPt00, Pt100)	Voltage (pulse)		C200H-TC102
		Current (linear)	7	C200H-TC103

#### **Data Setting Console**

Specifications	Model
Monitoring, setting, and changing present values, set points, alarm values, PID parameters, bank numbers, etc.	C200H-DSC01

## C200H High-density I/O Units Classified as Special I/O Units

Name	Specifications	Mountable	Mountable Racks					Model	Standards
		CPU Rack	C200H Expansion I/O Racks	CS1 Expansion Racks	CS1 Long- distance Racks	SYSMAC BUS Slave Racks	No.		
DC Input Units	24 V DC, 32 inputs	Yes	Yes	Yes	No	Yes	0 to 9	C200H-ID215	U, C, N, L, CE
TTL Input Units	5 V DC, 32 inputs	Yes	Yes	Yes	No	Yes	1	C200H-ID501	1
Transistor Output Units	24 V DC, 32 sinking outputs	Yes	Yes	Yes	No	Yes		C200H-OD215	]
TTL Output Units	5 V DC, 32 sinking outputs	Yes	Yes	Yes	No	Yes		C200H-OD501	
TTL I/O Units	5 V DC, 16 inputs, 16 sinking outputs	Yes	Yes	Yes	No	Yes		C200H-MD501	
DC Input/Transistor Output Units	24 V DC, 16 inputs, 16 sinking outputs	Yes	Yes	Yes	No	Yes	1	C200H-MD215	]
	12 V DC, 16 inputs, 16 sinking outputs	Yes	Yes	Yes	No	Yes	1	C200H-MD115	U, C, N

#### Connectors for C200H High-density I/O Units

Part	Connection	Remarks	Model	Standards
Applicable connectors	Soldered (included with Unit)	From Fujitsu Socket: FCN-361J024-AU Connector bar: FCN-360C024-J2	C500-CE241	
	Crimped	From Fujitsu Socket: FCN-363J024 Connector bar: FCN-360C024-J2 Contacts: FCN-363J-AU	C500-CE242	
	Pressure welded	From Fujitsu: FCN-367J024-AU/F	C500-CE243	
Terminal block	Special Cable	For C200H-ID215/ID501/OD215/	XW2Z-□□□A (See note.)	
connection parts	Terminal Block Connector	MD115/MD215	XW2B-20G4	
		For C200H-ID215/ID501/MD115/	XW2B-20G5	
		MD215/MD501 □□□ = cable length	XW2D-20G6	
		= cable length	XW2B-20G5-D	
			XW2B-40G5-T	
	Special Cable		XW2Z-□□□A (see note)	7
	Terminal Block Connector		XW2C-20G6-IN16	

Note: Refer to page 384 (Wiring Devices) for details. (Square boxes indicate the cable length.)

## C200H Special I/O Units (Cannot be used with CS1D)

Name	Specifications	Mountable Racks					Unit No.	Model	Standards
		CPU Rack	C200H Ex- pansion I/O Racks	CS1 Expan- sion Racks	CS1 Long- distance Racks	SYSMAC BUS Slave Racks			
Temperature Control Units	Thermocouple input, time-proportioning PID, or ON/OFF transistor output	Yes	Yes	Yes	No	Yes	0 to 9	C200H-TC001	U, C, CE
	Thermocouple input, time-proportioning PID, or ON/OFF voltage out- put	Yes	Yes	Yes	No	Yes		C200H-TC002	
	Thermocouple input, PID current output	Yes	Yes	Yes	No	Yes		C200H-TC003	
	Temperature-resistance thermometer input, time- proportioning PID, or ON/OFF transistor out- put		Yes	Yes	No	Yes		C200H-TC101	
	Temperature-resistance thermometer input, time- proportioning PID, or ON/OFF voltage output		Yes	Yes	No	Yes		C200H-TC102	
	Temperature-resistance thermometer input, PID current output	Yes	Yes	Yes	No	Yes		C200H-TC103	
Data Setting Console	Used with Temperature Control Units. Monitoring, setting, and changing present val- ues, set points, alarm values, PID parameters, bank numbers, etc.	rol Units.  toring, setting, and ging present val- set points, alarm se, PID parameters,						C200H-DSC01	
	Connecting Cable, 2 m							C200H-CN225	
	Connecting Cable, 4 m							C200H-CN425	