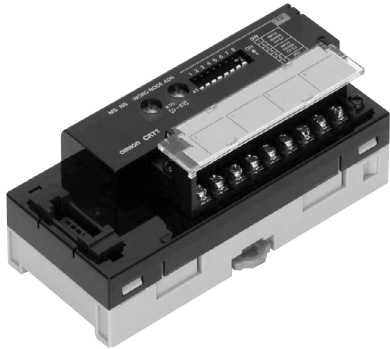


Temperature Input Units  
**CRT1-TS04T/-TS04P**

**High-speed Transfer of Temperature Data with CompoNet.**

**Enhanced Smart Functions.**

You can use either of two types of temperature input sensors: Thermocouple and resistance thermometer. Each Unit provides four temperature inputs. Plus, the Units support scaling, comparators, and other data processing, reducing the processing load on the ladder program.



- Product lineup includes models with thermocouple inputs and models with resistance thermometer inputs.
- The node address, input types, and other settings can all be made using the switches on the Slave. (No Support Software is required.)
- Detachable terminal blocks enable easy maintenance without the need to remove wiring.
- Smart functions in the Slave reduce ladder programming and make maintenance easier. For example, scaling to convert input data to desired values, comparators to compare process values with preset upper and lower limits, and integrator to calculate the heat values of equipment or Sensors by from the temperature and measurement time.
- The Sensor open-circuit detection function reduces wiring errors.

**Ordering Information**

Name	Specifications			Model
	Input/Output	Points	Specifications	
Temperature Input Unit	Thermocouple Input	4 inputs	Switchable between R, S, K, J, T, E, B, N, L, U, W, and PL2	CRT1-TS04T
	Platinum-resistance thermometer input		PT100 (-200 to 850°C) PT100 (-200 to 200°C)	CRT1-TS04P

**Performance Specifications**

For Basic Performance Specifications of Slave Units, refer to page 32.

## Specifications

Item	model	CRT1-TS04T	CRT1-TS04P														
Input type		Switchable between R, S, K, J, T, E, B, N, L, U, W, and PL2 When set with CX-Integrator: Input types can be set individually for each input. When set with DIP switch: The same input type setting applies to all 4 inputs.	Switchable between PT100 (-200 to 850°C) and PT100 (-200 to 200°C) When set with CX-Integrator: Input types can be set individually for each input. When set with DIP switch: The same input type setting applies to all 4 inputs.														
Indicator accuracy		(±0.3% of indication value or ±1°C, whichever is larger) ±1 digit max. <b>Indicator Accuracy in Exceptional Cases</b> <table border="1"> <thead> <tr> <th>Input type and temperature range</th> <th>Input accuracy</th> </tr> </thead> <tbody> <tr> <td>K, T, and N below -100°C</td> <td>±2°C ±1 digit max.</td> </tr> <tr> <td>U and L</td> <td>±2°C ±1 digit max.</td> </tr> <tr> <td>R and S below 200°C</td> <td>±3°C ±1 digit max.</td> </tr> <tr> <td>B below 400°C</td> <td>Not specified.</td> </tr> <tr> <td>W</td> <td>±0.3% of indication value or ±3°C (whichever is larger) ±1 digit max.</td> </tr> <tr> <td>PL2</td> <td>±0.3% of indication value or ±2°C (whichever is larger) ±1 digit max.</td> </tr> </tbody> </table>	Input type and temperature range	Input accuracy	K, T, and N below -100°C	±2°C ±1 digit max.	U and L	±2°C ±1 digit max.	R and S below 200°C	±3°C ±1 digit max.	B below 400°C	Not specified.	W	±0.3% of indication value or ±3°C (whichever is larger) ±1 digit max.	PL2	±0.3% of indication value or ±2°C (whichever is larger) ±1 digit max.	-200 to 850°C input range: (±0.3% of indication value or ±0.8°C, whichever is larger) ±1 digit max. -200 to 200°C input range: (±0.3% of indication value or ±0.5°C, whichever is larger) ±1 digit max.
Input type and temperature range	Input accuracy																
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PL2	±0.3% of indication value or ±2°C (whichever is larger) ±1 digit max.																
Conversion cycle		250 ms/4 points															
Temperature conversion data		Binary data (4-digit hexadecimal when Normal Display Mode is selected or 8-digit hexadecimal when 1/100 Display Mode is selected.)															
Isolation method		Between input and communication lines: Photocoupler isolation Between temperature input signals: Photocoupler isolation															
Mounting method		35-mm DIN track mounting															
Communications power supply current		75 mA max. at 24 VDC 110 mA max. at 14 VDC	75 mA max. at 24 VDC 110 mA max. at 14 VDC														
Weight		148 g max.	147 g max.														

### Effects of Mounting Direction on Accuracy

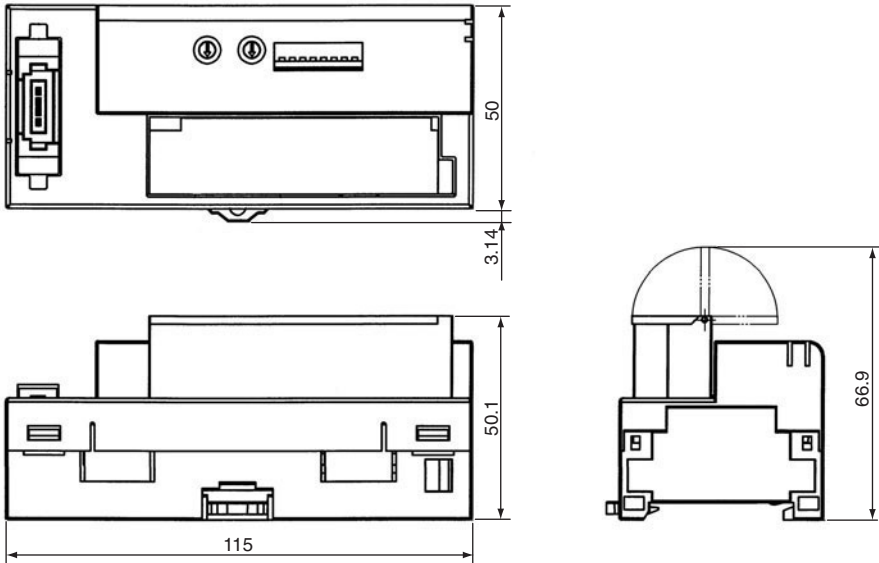
A cold junction compensator is included in the Terminal Block of the CRT1-TS04T. The input accuracy depends on the mounting direction if only the Unit is replaced.

Mounting direction	Input accuracy														
Mounted normally	As specified in the Performance Specifications.														
Mounted in any direction other than the above	±0.3% of indication value or ±2°C (whichever is larger) ±1 digit max. <b>Indicator Accuracy in Exceptional Cases</b> <table border="1"> <thead> <tr> <th>Input type and temperature range</th> <th>Input accuracy</th> </tr> </thead> <tbody> <tr> <td>K, T, and N below -100°C</td> <td>±3°C ±1 digit max.</td> </tr> <tr> <td>U and L</td> <td>±3°C ±1 digit max.</td> </tr> <tr> <td>R and S below 200°C</td> <td>±4°C ±1 digit max.</td> </tr> <tr> <td>B below 400°C</td> <td>Not specified.</td> </tr> <tr> <td>W</td> <td>±0.3% of indication value or ±4°C (whichever is larger) ±1 digit max.</td> </tr> <tr> <td>PL2</td> <td>±0.3% of indication value or ±3°C (whichever is larger)</td> </tr> </tbody> </table>	Input type and temperature range	Input accuracy	K, T, and N below -100°C	±3°C ±1 digit max.	U and L	±3°C ±1 digit max.	R and S below 200°C	±4°C ±1 digit max.	B below 400°C	Not specified.	W	±0.3% of indication value or ±4°C (whichever is larger) ±1 digit max.	PL2	±0.3% of indication value or ±3°C (whichever is larger)
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B below 400°C	Not specified.														
W	±0.3% of indication value or ±4°C (whichever is larger) ±1 digit max.														
PL2	±0.3% of indication value or ±3°C (whichever is larger)														

Dimensions

(Unit: mm)

CRT1-TS04T  
CRT1-TS04P



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2012.6

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