

C015 Series Non-Contact Type Roller Surface Thermocouples

The C015 series is adjacent measuring thermocouples designed for measurement of surface temperature of moving or rolling materials, such as heating rollers, press rollers and running sheets. The thermocouple has the built-in automatic correction circuit for the difference between surrounding air and actual temperature of an object. No emissivity compensation to an object surface like as radiation thermometers is necessary.



Features

- Non-contact measurement for lower temperature ranges
- Unique circuit for temperature correction
- Stability of measurement by stabilizing filter
- Affection free from emissivity
- Thermoelectric voltage of Type K thermocouple is applied as output.

Models

Types	Models	Measuring ranges	Extension wire length	Applications
Standard	C015-11	Room temp. to 250°C	5m	For no disturbance and stable measurement distance of 1 to 2mm
	C015-21	Room temp. to 250°C	10m	
	C015-31	Room temp. to 500°C	5m	

	C015-41	Room temp. to 500°C	10m	
With reflection plate	C015-12	Room temp. to 250°C	5m	For much disturbance or measurement distance of about 3mm needed
	C015-22	Room temp. to 250°C	10m	
	C015-32	Room temp. to 500°C	5m	
	C015-42	Room temp. to 500°C	10m	
With distancer	C015-13	Room temp. to 250°C	5m	For measurement distance fluctuated
	C015-23	Room temp. to 250°C	10m	

Specifications

Element	Type K thermocouple
Wire diameter	φ0.1mm
Accuracy rating	Within ±5°C at 200°C span (For the correction constants are determined at the middle of measurement range.)
Measurement distance	1 to 2mm (constant)
Measurement width	Minimum 30mm
Response time	About 6 seconds (time constant)
Output signal	Thermal EMF of Type K thermocouple
Output impedance	15 to 22Ω
Output stabilizing filter	0.07mm thick , amber mica
Lead wire	φ7mm heat resistance vinyl cord or silicon rubber lead wire 5m (19m) attached

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