

# Thin type thermocouple temperature transducer

## Model TH-2C, 5C



### Input Specification

Thermocouple (JIS C1602-1995)

Code	Sensor	Input	No.Y Limit of specifications
J0	J	0 to 1000°C	-50 to 1000°C Span:200 to 1050°C
JY		Other than the above	
K2	K	-50 to 200°C	-50 to 1200°C Span:200 to 1250°C
K3		0 to 200°C	
K4		-50 to 1200°C	
K5		0 to 1200°C	
KY		Other than the above	
R0	R	0 to 1700°C	0 to 1700°C Span:400 to 1700°C
RY		Other than the above	
T0	T	-50 to 350°C	-50 to 350°C Span:200 to 400°C
T1		0 to 350°C	
TY		Other than the above	
S0	S	0 to 1700°C	0 to 1700°C Span:500 to 1700°C
SY		Other than the above	

Allowable input value:-50 to 150% F.S

### Output Specification

Code	Output	Load resistance
0	0 to 5V DC	More than 2KΩ
1	1 to 5V DC	
2	0 to 10V DC	More than 4KΩ Negative output:more than 10kΩ Less than 550Ω
3	-10 to 10V DC	
A	4 to 20mA DC	
Y	Other than the above	

For code No.Y limit of specifications

Voltage output:-10 to 10V DC

Minimum span:1 to 20V

Current output:0 to 20mA DC

Minimum span:1 to 20mA

### General Specifications

Base accuracy:  $\pm 0.2\%$  F.S (at 25 $\pm 2^\circ\text{C}$ )

Load resistance variation:  $\pm 0.06\%$  F.S

Power supply variation:  $\pm 0.06\%$  F.S

Temperature characteristic:  $\pm 0.02\%$  F.S/ $^\circ\text{C}$

Accuracy of cold junction compensation:  $\pm 1^\circ\text{C}$  (10 to 30 $^\circ\text{C}$ )

$\pm 2^\circ\text{C}$  (Other than 10 to 30 $^\circ\text{C}$ )

Response time: 200msec TYP (0  $\rightarrow$  90%)

Disconnection detection: Upside (135 $\pm 15\%$  F.S)

Front adjustments:  $\pm 5\%$  F.S (zero, span)

Insulation resistance: Between the input and output/power supply  
More than 100MΩ at 500V DC

Dielectric strength: Between the input and output/power supply  
For 1 min. at 1500V AC

Power supply voltage: 100 to 240V AC  $\pm 10\%$   
24V DC  $\pm 10\%$

Consuming current: Less than 20mA (at 100V AC)  
Less than 50mA (at 24V DC)

Operating ambient temperature : -5 to 50 $^\circ\text{C}$

Operating ambient humidity : Less than 90%RH (No-condensing)

Storage temperature : Within -10 to +70 $^\circ\text{C}$

Storage humidity : Less than 60%RH (No-condensing)

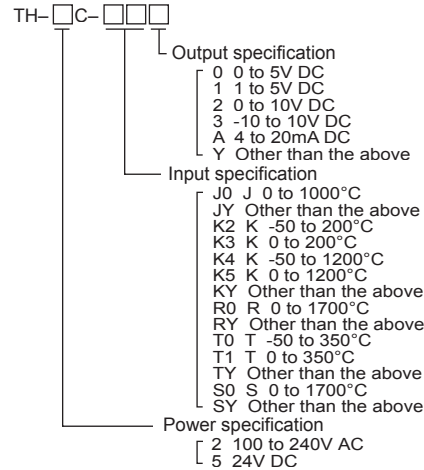
Case material : Black PC 94V-2

Weight : Approx. 80g

### Features

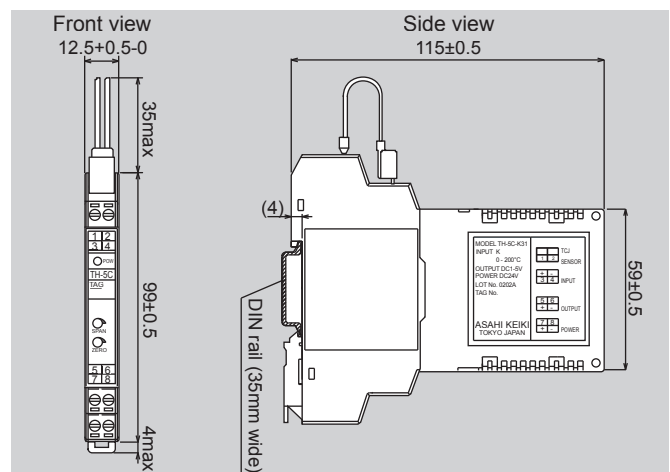
- AC power supply 100 to 240V AC
- DIN rail mounting
- Input/Output/Power supply isolated

### Ordering Code

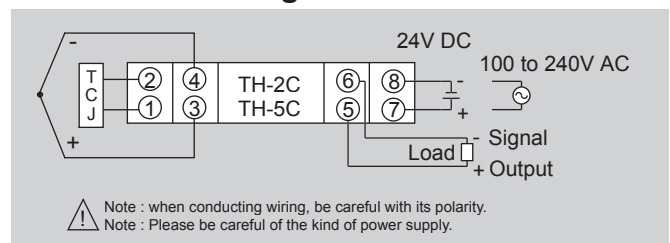


Example : TH- 5 C- K 3 2

### Dimensions



### Connection Diagram



### Block Diagram

