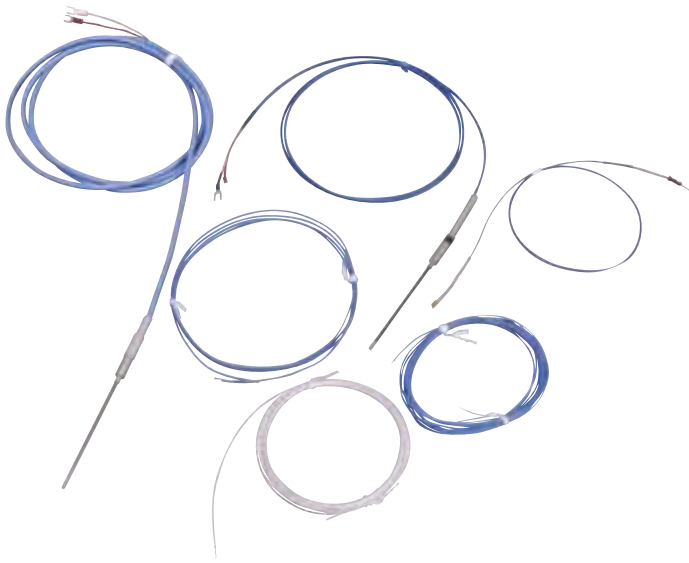




# TEMPERATURE SENSOR Type K thermocouple (Some are UL certified.)

## 温度センサー

Temperature sensors for our digital temperature controller "MonoOne" series.  
It is ready to use if your temperature controller supports thermocouple K and Pt100Ω.



### Sheath type K thermocouple

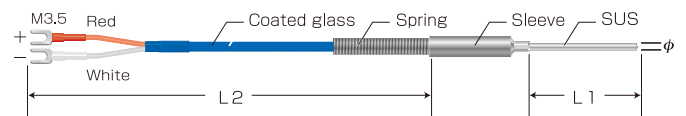
#### Selection Standard

This is a stainless steel sheath tube filled with inorganic insulator at high pressure through a thermocouple element, and is excellent in sensitivity, vibration resistance, and economical efficiency.

However, the durability of measurement in a high-temperature activated gas atmosphere may be extremely poor.

Please consult us in advance.

#### Sheath type K thermocouple (Coated with glass)



Maximum cladding material temperature: 250°C (Sleeve 80°C) Tolerance: Class 2

Product code	Φ (m)	L1 (m)	L2 (m)
TH-8159	3.2	100	1.5
TH-8159-1	3.2	100	3.0
TH-8159-2	3.2	100	5.0
TH-8185	3.2	300	3.0
TH-8182	3.2	500	3.0
TH-8192	3.2	50	3.0
TH-8163	1.6	100	3.0
TH-8163-1	1.6	100	1.5
TH-8196	1.0	100	3.0

### Type K thermocouple

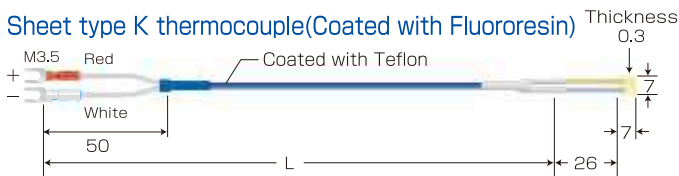
RoHS Compliance

### Sheet type K thermocouple

#### Selection Standard

This is formed of a thermocouple on an insulating sheet, and is suitable for measuring surface temperature.

It is a sheet-like thermocouple that is stuck on the surface of the object to measure surface temperature quickly and accurately.



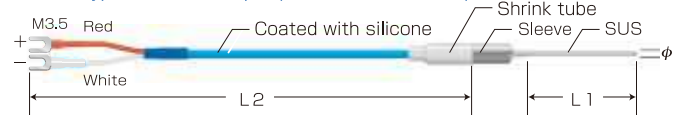
Normal limit: 200°C Tolerance: Class 2 (±2.5°C or ±0.75%)

Product code	L (m)
TH-8297-1	1.0
TH-8297-3	3.0
TH-8297-10	10.0

Normal Limit of temperature sensing section

Outer diameter of sheath φ (mm)	Normal Limit °C (SUS316)
1.0, 1.6, 2.3	650
2.3, 3.2	750

#### Sheath type K thermocouple (Coated with silicone)



Maximum cladding material temperature: 180°C (Sleeve 80°C) Tolerance: Class 2

Product code	Φ (m)	L1 (m)	L2 (m)
TH-8173	2.3	100	2.0
TH-8174	3.2	100	2.0

#### Sheath type K thermocouple (Coated with Fluororesin)



Maximum cladding material temperature: 260°C (Epoxy resin 150°C) Tolerance: Class 1  
Waterproof type

Product code	Φ (m)	L1 (m)	L2 (m)
TH-8100-2	3.2	100	2.0



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# TEMPERATURE SENSOR Type K thermocouple (Some are UL certified.)

## 温度センサー

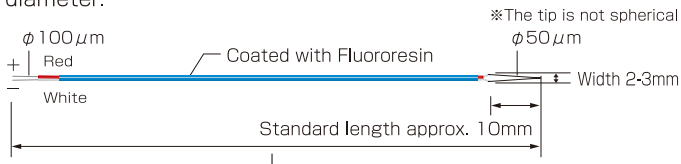
### Ultrafine type K thermocouple

#### Selection Standard

It is suitable for measurement of ultrafine part and gas temperature.

This ultrafine thermocouple with ultra-high-speed response is one of the industry's best in the field.

The tip of the thermocouple is a thermocouple with 50 $\mu$ m diameter.



Normal limit: 260°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ )

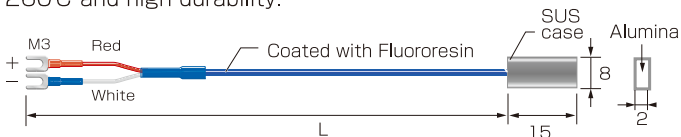
Product code	L(m)
TH-8910-1	1.0

### Stick type K thermocouple

#### Selection Standard

It is recommended if the detection section is planar or flat.

This is a sensor with stable sensing of its heat resistance of 260°C and high durability.



Normal limit: 260°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ )

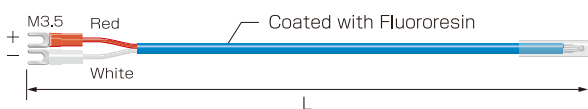
Product code	L(m)
TH-8282	2.0

### Mold type K thermocouple

#### Selection Standard

The tip is molded with resin and is recommended for measurements in liquids.

The sensor with heat resistance of 200°C and waterproofing.



Normal limit: 200°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ ) **Waterproof type**

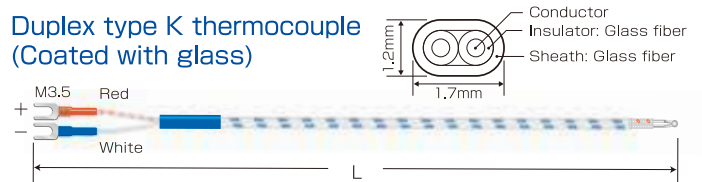
Product code	L(m)
TH-8484-3	3.0

### Duplex (tip welding) type K thermocouple

#### Selection Standard

The duplex type K thermocouple is the one whose thermocouple element wire is coated with Fluororesin or glass. It is used without protective tube.

#### Duplex type K thermocouple (Coated with glass)



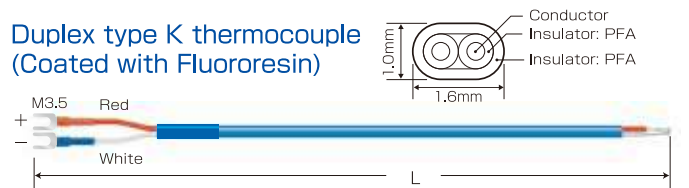
Normal limit: 250°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8162-1~TH-8162-20	2,000
TH-8282-2	2.0
TH-8282-3	3.0
TH-8282-5	5.0
TH-8282-10	10.0
TH-8282-20	20.0

Normal limit: 250°C Tolerance: Class1 ( $\pm 1.5^\circ\text{C}$  or  $\pm 0.4\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8296-1	1.0
TH-8296-2	2.0
TH-8296-3	3.0
TH-8296-5	5.0
TH-8296-10	10.0
TH-8296-20	20.0

#### Duplex type K thermocouple (Coated with Fluororesin)



Normal limit: 260°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8181-1	1.0
TH-8181-2	2.0
TH-8181-3	3.0
TH-8181-5	5.0
TH-8181-10	10.0
TH-8181-20	20.0



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# TEMPERATURE SENSOR Type K thermocouple (Some are UL certified.)

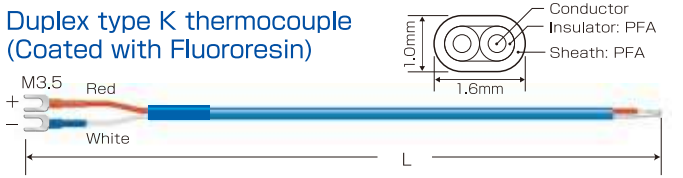
## 温度センサー

### Type K thermocouple

RoHS Compliance

### Duplex (tip welding) type K thermocouple

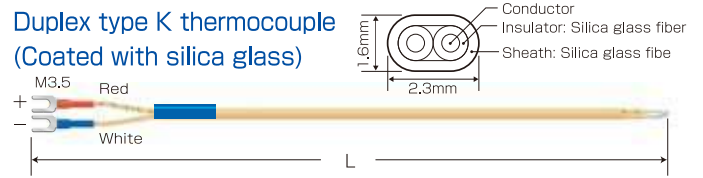
#### Duplex type K thermocouple (Coated with Fluororesin)



Normal limit: 260°C Tolerance: Class1 ( $\pm 1.5^\circ\text{C}$  or  $\pm 0.40\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8391-1	1.0
TH-8391-2	2.0
TH-8391-3	3.0
TH-8391-5	5.0
TH-8391-10	10.0
TH-8391-20	20.0

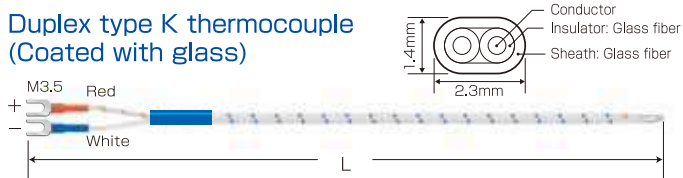
#### Duplex type K thermocouple (Coated with silica glass)



Normal limit: 400°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8292-1	1.0
TH-8292-2	2.0
TH-8292-3	3.0
TH-8292-5	5.0
TH-8292-10	10.0
TH-8292-20	20.0

#### Duplex type K thermocouple (Coated with glass)



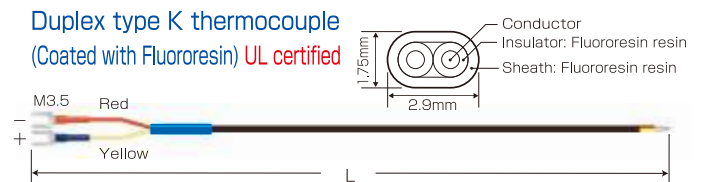
Normal limit: 350°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8294-1	1.0
TH-8294-2	2.0
TH-8294-3	3.0
TH-8294-5	5.0
TH-8294-10	10.0
TH-8294-20	20.0

Normal limit: 400°C Tolerance: Class1 ( $\pm 1.5^\circ\text{C}$  or  $\pm 0.40\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8396-1	1.0
TH-8396-2	2.0
TH-8396-3	3.0
TH-8396-5	5.0
TH-8396-10	10.0
TH-8396-20	20.0

#### Duplex type K thermocouple (Coated with Fluororesin) UL certified



Red part is negative due to UL specification.  
Normal limit: 200°C Tolerance: Class2 ( $\pm 2.5^\circ\text{C}$  or  $\pm 0.75\%$ ) Wire diameter: 0.65mm

Product code	L(m)
TH-8290-1	1.0
TH-8290-2	2.0
TH-8290-3	3.0
TH-8290-5	5.0
TH-8290-10	10.0
TH-8290-20	20.0

Normal limit: 350°C Tolerance: Class1 ( $\pm 1.5^\circ\text{C}$  or  $\pm 0.40\%$ ) Wire diameter: 0.32mm

Product code	L(m)
TH-8398-1	1.0
TH-8398-2	2.0
TH-8398-3	3.0
TH-8398-5	5.0
TH-8398-10	10.0
TH-8398-20	20.0

Changeable to circular terminal as optional (Extra charge)  
Product: Duplex type K thermocouple Please consult us.



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