

# Special Application Probes

The special application probes are tailor-made for specific measurement purposes.

Anritsu Meter offers a wide array of probe types for extremely small surfaces, for air temperature measurements, for soldering irons, for insertion use, and other uses.

特殊测温棒

针对不同用途而设计的温度感应器。

备有微型表面用、空气温用、焊接用、插入型等各种模式。

測定用途別に設計された温度センサです。

微小表面用、空気温用、はんだコテ用、差込用など、様々なタイプを用意しています。

## How to order of Special Application Probes

The probes shown from page 26 to page 33 are available with customer-specified thermocouples, compensating lead wire lengths (cord section), and connection plug types.

26页至33页所记载的温度感应器的热电偶类型、补偿导线的长度(接线部分)以及连接插头的形状都可以按照客户的需求选配。

26ページから33ページに掲載された温度センサは、熱電対種、補償導線の長さ(コード部)、接続プラグの種類がカスタマイズが可能です。

Example:

**1 23K-TC1-ANP**



<b>Thermocouple Type</b>	Choose Type K or Type E Be sure to choose the same thermocouple type as the one used for the main thermometer unit.	请选择E模式或K模式 请选择与测量器相同类型的热电偶。 計測器本体と同じ熱電対種を選択してください
<b>Cable Length</b>	Length of cord section Specify a cord length in 1m increments.	接线的长度 可以以1m为单位指定长度。 コード部の長さです 1m単位で指定できます
<b>Plug</b>	Choose ANP or ASP Be sure to choose the same plug type as the one used for the main thermometer unit.	请选择ANP或ASP 请选择与测量器相同形状的插头。 計測器本体と同じプラグ形状を選択してください

※For detailed information on thermocouples, cords, and plugs, refer to "Attention of Order" on pages 4 and 5.

※有关热电偶、接线、插头的具体规格请参阅[4-5页：订购注意事项]。

※熱電対、コード、プラグの詳細については、「Page.4～5:Attention of order」をご覧ください

### Attention

The following probes have certain restrictions on customization.

下列型号的感应器中，客户可选配的内容有限制。

下記のセンサは、カスタマイズ内容に制限があります

Model No.	Restrictions
619 620 621	These probes are Type K only.

## Micro Sensor Probes (General type)

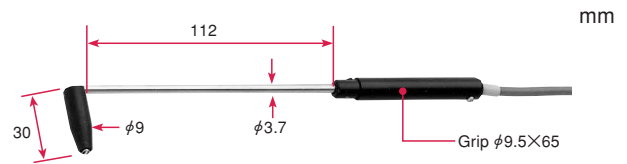
**Type K Model 357K-TC1-ANP**  
**Type E Model 357E-TC1-ANP**



**Straight type**

Temp. Range	Accuracy	Response time	Durability
-50~400°C	±1.8°C (at 100°C Surface)	1.0 s	B

**Type K Model 358K-TC1-ANP**  
**Type E Model 358E-TC1-ANP**

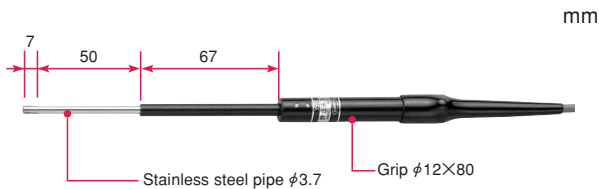


**90° -Pipe Angle type**

Temp. Range	Accuracy	Response time	Durability
-50~400°C	±1.8°C (at 100°C Surface)	1.0 s	B

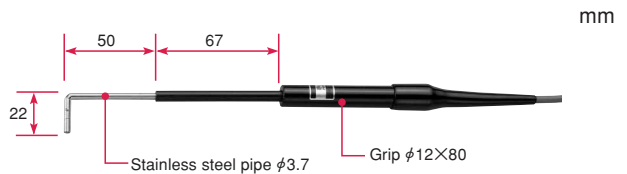
## Micro Sensor Probes (Protected by polyimide film type)

**Type K Model 355K-TC1-ANP**  
**Type E Model 355E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~400°C	±1.8°C (at 100°C Surface)	2.0 s	B

**Type K Model 356K-TC1-ANP**  
**Type E Model 356E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~400°C	±1.8°C (at 100°C Surface)	2.0 s	B

## Micro Sensor Probes (Thin head type)

**Type K Model 310K-TC1-ANP**  
**Type E Model 310E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~250°C	±1.5°C (at 100°C Surface)	0.5 s	B

**Type K Model 343K-TC1-ANP**  
**Type E Model 343E-TC1-ANP**

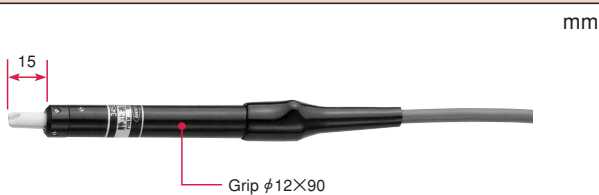


**30° -Pipe Angle type**

Temp. Range	Accuracy	Response time	Durability
-50~250°C	±1.5°C (at 100°C Surface)	0.5 s	B

## Micro Sensor Probes (for large heat-capacity)

**Type K Model 345K-TC1-ANP**  
**Type E Model 345E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~600°C	±1.8°C (at 100°C Surface)	2.5 s	B

**Type K Model 346K-TC1-ANP**  
**Type E Model 346E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~600°C	±1.8°C (at 100°C Surface)	2.5 s	B

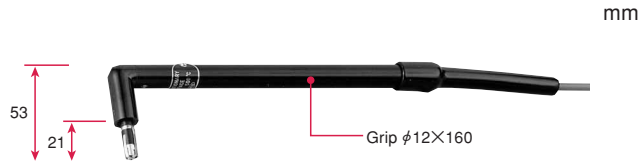
## Micro Sensor Probes (Strongly-built)

**Model 348K-TC1-ANP**  
**Model 348E-TC1-ANP**



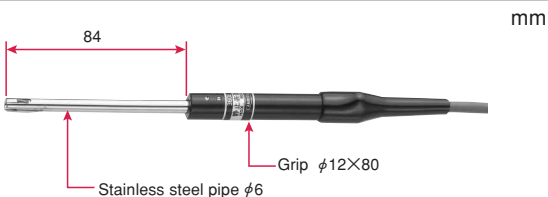
Temp. Range	Accuracy	Response time	Durability
-50~500°C	±1.8°C (at 100°C Surface)	2.4 s	B

**Model 349K-TC1-ANP**  
**Model 349E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~500°C	±1.8°C (at 100°C Surface)	2.4 s	B

**Model 360K-TC1-ANP**  
**Model 360E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~600°C	±1.8°C (at 100°C Surface)	2.5 s	B

## High Temperature Probes

**Model 619K-010-TC1-ANP**  
L



Temp. Range	Accuracy	Response time	Durability
-50~1200°C	±2°C (at 100°C Surface)	15 s	B

**Model 620K-010-TC1-ANP**  
L



Temp. Range	Accuracy	Response time	Durability
-50~1200°C	±2°C (at 100°C Surface)	15 s	B

**Model 621K-010-TC1-ANP**  
L



Temp. Range	Accuracy	Response time	Durability
-50~1200°C	±2°C (at 100°C Surface)	15 s	B

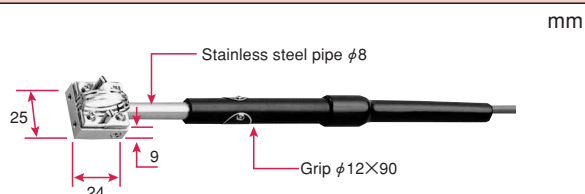
Specify the pipe length "L".

L	Pipe Length
010	100mm
020	200mm
030	300mm
050	500mm
100	1000mm

※ These probes are suitable for high temperature measurement of stationary metallic surface.

## Flat Head Probes (Head thickness : App.20mm)

**Type K Model 107K-TC1-ANP**  
**Type E Model 107E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~500°C	±1.2°C (at 100°C Surface)	1.5 s	A

**Type K Model 119K-TC1-ANP**  
**Type E Model 119E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~500°C	±1.2°C (at 100°C Surface)	1.5 s	A

## Flat Head Probes (Head thickness : App.15mm)

**Type K Model 309K-TC1-ANP**  
**Type E Model 309E-TC1-ANP**



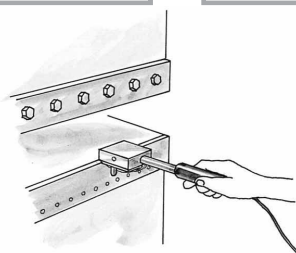
Temp. Range	Accuracy	Response time	Durability
-50~300°C	±1.2°C (at 100°C Surface)	1.5 s	A

**Type K Model 347K-TC1-ANP**  
**Type E Model 347E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~300°C	±1.2°C (at 100°C Surface)	1.5 s	A

### Flat Head Probes Applications



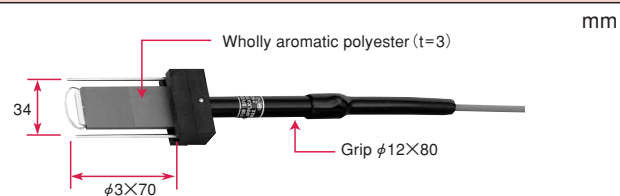
## Slit Type Probes

**Type K Model 304K-TC1-ANP**  
**Type E Model 304E-TC1-ANP**



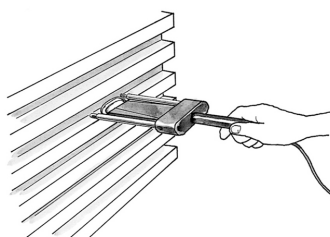
Temp. Range	Accuracy	Response time	Durability
-50~220°C	±1.3°C (at 100°C Surface)	1.5 s	B

**Type K Model 362K-TC1-ANP**  
**Type E Model 362E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~350°C	±1.3°C (at 100°C Surface)	1.5 s	B

### Slit Type Probes Applications



## Pipe Outside Probes

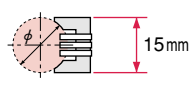
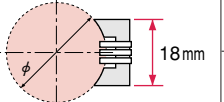
**Model 123K- $\phi$ 50-TC1-ANP**  
**Model 123E- $\phi$ 50-TC1-ANP**



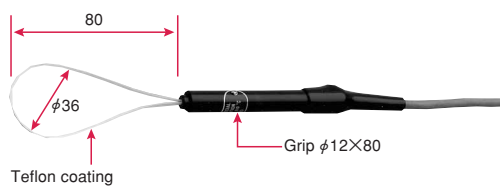
Temp. Range	Accuracy	Response time	Durability
-50~250°C	±1.4°C (at 100°C Surface)	2.0 s	B

These probes are ideal for measuring the temperatures of surfaces having a small-radius bend, such as pipes.

Choose the most appropriate guard, based on the diameter of the measurement target.

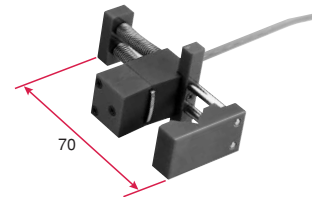
Guard form	Producible range	Tolerance when specified
	φ9~15mm	±1mm
	φ16~39mm	±2mm
	φ40~100mm	±5mm

**Model 528K-TC1-ANP**  
**Model 528E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~210°C	±1.3°C (at 100°C Surface)	3.0 s	B

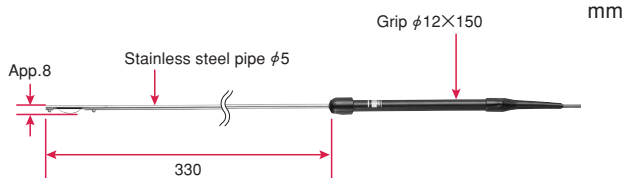
**Model 1811K-TS1-ANP**  
**Model 1811E-TS1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~100°C	±2.0°C (at 100°C Surface)	2.0 s	S

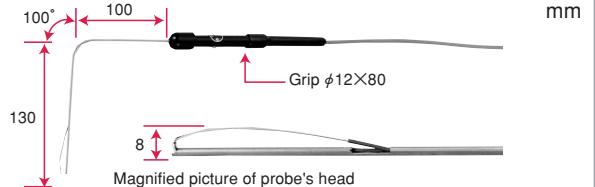
## Pipe Inside Probes

**Model 344K-TC1-ANP**  
**Model 344E-TC1-ANP**



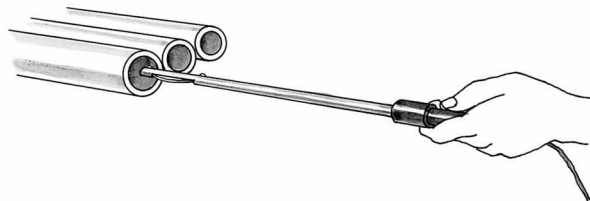
Temp. Range	Accuracy	Response time	Durability
-50~400°C	±2.0°C (at 100°C Surface)	5.0 s	C

**Model 305K-TC1-ANP**  
**Model 305E-TC1-ANP**



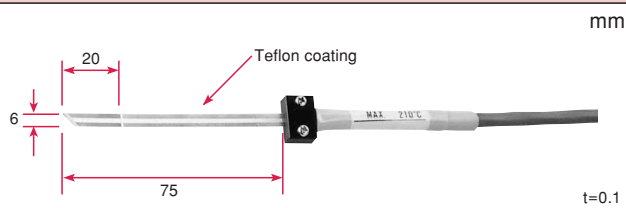
Temp. Range	Accuracy	Response time	Durability
-50~220°C	±1.5°C (at 100°C Surface)	2.0 s	C

### Pipe Inside Probes Applications



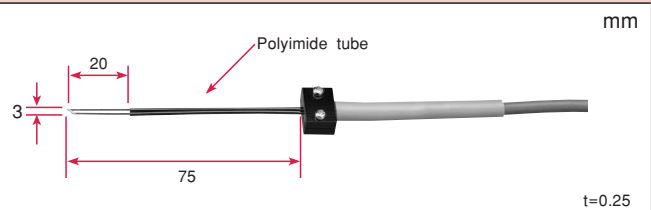
## Flat Leaf Probes

**Type K Model 503K-TC1-ANP**  
**Type E Model 503E-TC1-ANP**



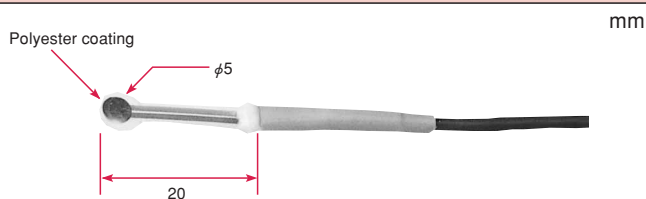
Temp. Range	Accuracy	Response time	Durability
-50~210°C	±1.3°C (at 100°C)	3.0 s	S

**Type K Model 505K-TS1-ANP**  
**Type E Model 505E-TS1-ANP**



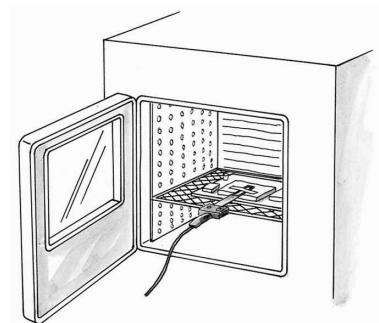
Temp. Range	Accuracy	Response time	Durability
-50~400°C	±1.5°C (at 100°C)	6.0 s	S

**Type K Model 540K-TS1-ANP**  
**Type E Model 540E-TS1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~100°C	±1.4°C (at 100°C Surface)	8.0 s	S

### Flat Leaf Probes Applications



## Insertion Probes

**Type K Model 502K-TC1-ANP**  
**Type E Model 502E-TC1-ANP**



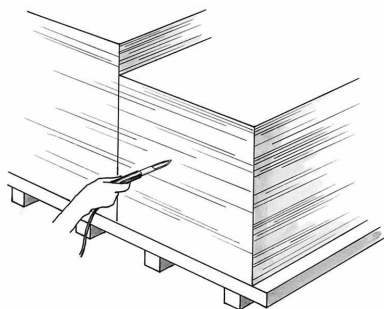
Temp. Range	Accuracy	Response time	Durability
-50~210°C	±1.3°C (at 100°C)	3.0 s	S

**Type K Model 504K-TC1-ANP**  
**Type E Model 504E-TC1-ANP**



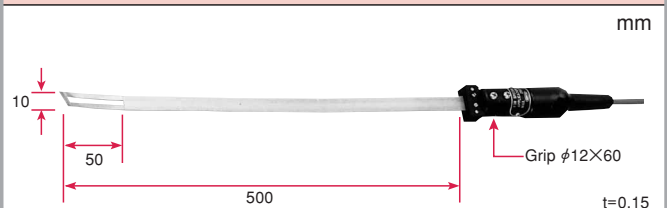
Temp. Range	Accuracy	Response time	Durability
-50~500°C	±1.5°C (at 100°C Surface)	6.0 s	S

### Insertion Probes Applications



## Sheet Probes

**Type K Model 501K-TC1-ANP**  
**Type E Model 501E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~250°C	±1.4°C (at 100°C Surface)	4.0 s	S

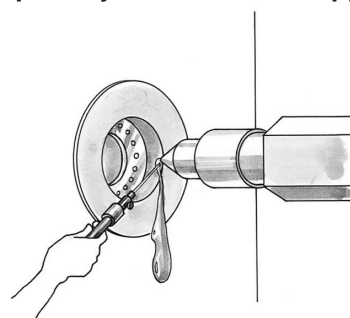
## Depth Adjustable Probes

**Model 520K-TC1-ANP**  
**Model 520E-TC1-ANP**



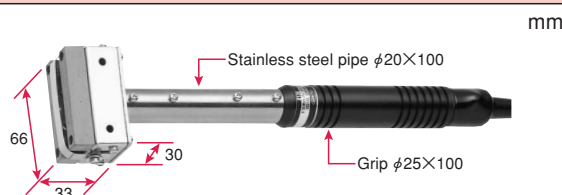
Temp. Range	Accuracy	Response time	Durability
-200~300°C	±1.3°C (at 100°C)	1.5 s	B

### The Depth Adjustable Probes Applications



## Heavy Duty Moving Surface Probes

**Type K Model 213K-TC1-ANP**  
**Type E Model 213E-TC1-ANP**



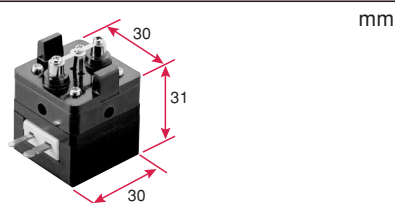
Temp. Range	Accuracy	Response time	Durability
-50~600°C	±1.5°C (at 100°C Surface)	5.0 s	B

The following model designations are used, based on the length of the stainless pipe:

Stainless Pipe Length	Model
100mm	213K-TC1-ANP
200mm	214K-TC1-ANP
300mm	215K-TC1-ANP
500mm	216K-TC1-ANP
1000mm	217K-TC1-ANP

## Soldering Iron Probes (for Lead Free Solder)

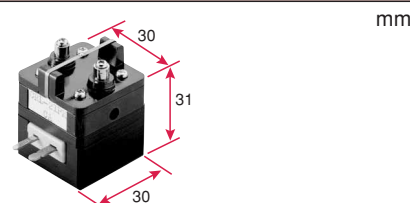
**Type K Model 756K-ANP**  
**Type E Model 756E-ANP**



Temp. Range	Accuracy	Response time	Durability
0~500°C	±4.0°C (at 300°C)	2.0 s	S

※Suitable for 1.5~4mm iron tips.

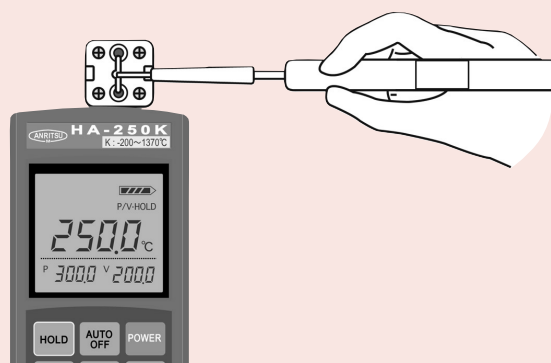
**Type K Model 757K-ANP**  
**Type E Model 757E-ANP**



Temp. Range	Accuracy	Response time	Durability
0~500°C	±4.0°C (at 300°C)	2.0 s	S

※Suitable for less than 1.5mm iron tips.

### Soldering iron Probes Applications



Soldering iron probes offer greater temperature measurement accuracy when measurements are made while melting solder.

Lead-free solder is used in the manufacture of the 756K-ANP and 757K-ANP.

Probe models using lead solder are as follows:

For Lead Free solder	For Lead solder
756K-ANP	754K-ANP
757K-ANP	755K-ANP

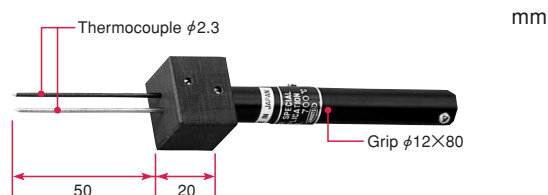
## Molten Metal Surface Probes

**Type K Model 518K-TC1-ANP**  
**Type E Model 518E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
0~700°C	±2.5°C (at 100°C)	2.0 s	S

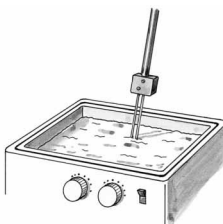
**Type K Model 524K-TC1-ANP**  
**Type E Model 524E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
0~700°C	±2.5°C (at 100°C)	2.0 s	S

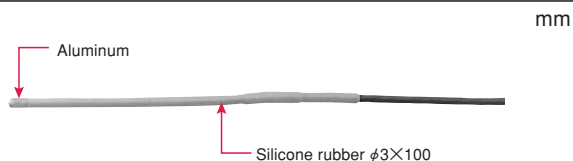
### No Junction Type Probe Applications

This probe can not measure the internal temperature of molten metal because the junction is formed on the surface of molten metal.



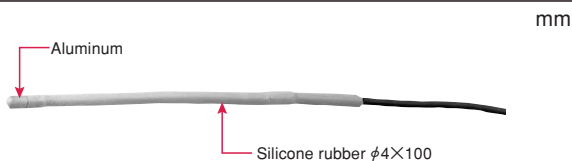
## Soft Body Probes

**Type K Model 1600K-TS1-ANP**  
**Type E Model 1600E-TS1-ANP**



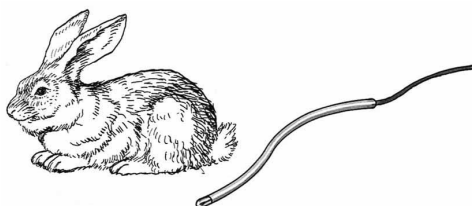
Temp. Range	Accuracy	Response time	Durability
0~200°C	±1.5°C (at 100°C)	4.0 s	S

**Type K Model 1601K-TS1-ANP**  
**Type E Model 1601E-TS1-ANP**



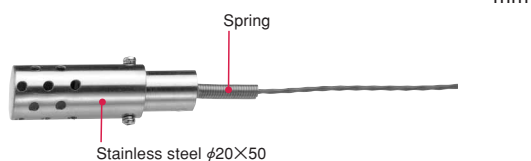
Temp. Range	Accuracy	Response time	Durability
0~200°C	±1.5°C (at 100°C)	4.0 s	S

### Soft Body Probes Applications



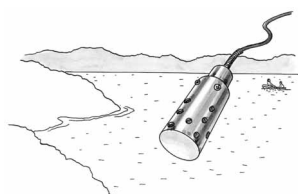
## Drop Probes

**Type K Model 530K-TF5-ANP**  
**Type E Model 530E-TF5-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~150°C	±2.5°C (at 100°C)	3.0 s	S

### Drop Probes Applications

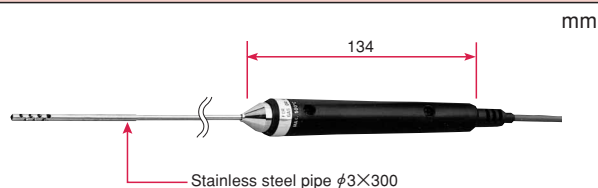


Strong lead cable enable this probe to throw into sea, bath and tank. 5 meters lead cable is provided for standard order.



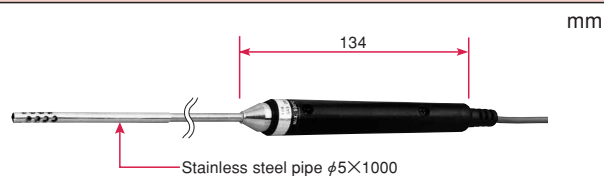
## Air Temperature Probes (Protection Pipe Type)

**Model 510K-TC1-ANP**  
**Model 510E-TC1-ANP**



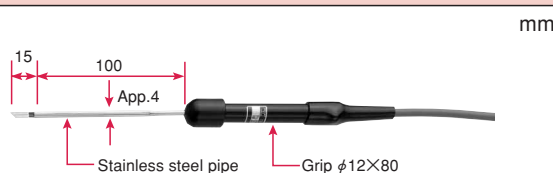
Temp. Range	Accuracy	Response time	Durability
-200~500°C	$\pm 1.3^\circ\text{C}$ (at 100°C)	0.3 s	S

**Model 511K-TC1-ANP**  
**Model 511E-TC1-ANP**



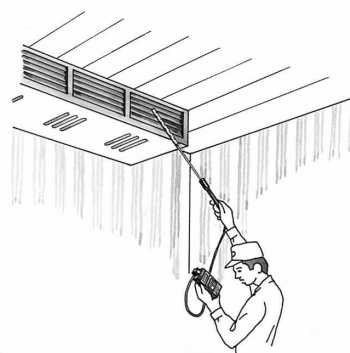
Temp. Range	Accuracy	Response time	Durability
-200~500°C	$\pm 1.3^\circ\text{C}$ (at 100°C)	0.3 s	S

**Type K Model 527K-TC1-ANP**  
**Type E Model 527E-TC1-ANP**



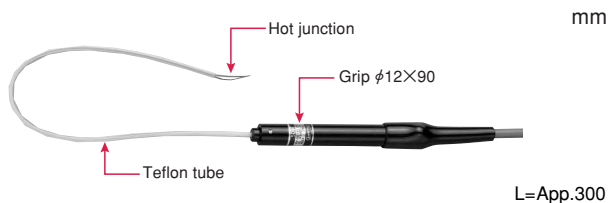
Temp. Range	Accuracy	Response time	Durability
-200~500°C	$\pm 1.3^\circ\text{C}$ (at 100°C)	2.0 s	S

### Air Temp. Probes (Protection Pipe Type) Applications



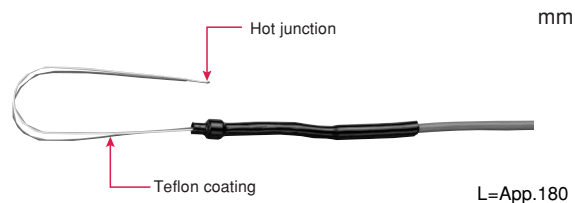
## Air Temperature Probes (Flexible Type)

**Type K Model 509K-TC1-ANP**  
**Type E Model 509E-TC1-ANP**



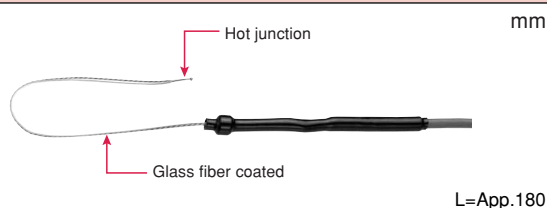
Temp. Range	Accuracy	Response time	Durability
-50~260°C	$\pm 1.3^\circ\text{C}$ (at 100°C)	0.3 s	S

**Type K Model 522K-TC1-ANP**  
**Type E Model 522E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~210°C	$\pm 1.3^\circ\text{C}$ (at 100°C)	0.3 s	S

**Type K Model 523K-TC1-ANP**  
**Type E Model 523E-TC1-ANP**



Temp. Range	Accuracy	Response time	Durability
-50~500°C	$\pm 1.3^\circ\text{C}$ (at 100°C)	0.3 s	S