

# 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 insertion use, and other uses.

特殊感应器

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、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、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 40 to page 44 are available with customer-specified thermocouples, compensating lead wire lengths (cord section), and connection plug types.

40页至44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。

40ページから44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:

### 123K-TC1-ANP



Thermocouple type	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
Cable length	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
Plug	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

### 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.

※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。

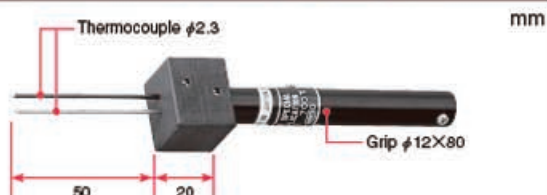
## Molten metal surface probes

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



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

### No Junction type probes applications

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



## Micro sensor probes (Thin head type)

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



Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°C (at 100°C surface)	0.5 s	B

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



Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°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	Tolerance	Response time	Durability
-50~600°C	±2.5°C (at 100°C surface)	2.5 s	B

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



Temp. range	Tolerance	Response time	Durability
-50~600°C	±2.5°C (at 100°C surface)	2.5 s	B

## High temperature probes

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



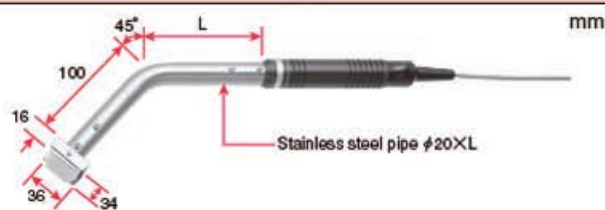
Temp. range	Tolerance	Response time	Durability
-50~1200°C	±2.5°C (at 100°C surface)	15 s	B

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



Temp. range	Tolerance	Response time	Durability
-50~1200°C	±2.5°C (at 100°C surface)	15 s	B

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



Temp. range	Tolerance	Response time	Durability
-50~1200°C	±2.5°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.



## Pipe outside probes

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



mm

Temp. range	Tolerance	Response time	Durability
-50~250°C	±2.5°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
	$\phi$ 9~15mm	±1mm
	$\phi$ 16~39mm	±2mm
	$\phi$ 40~100mm	±5mm

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

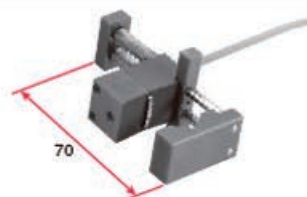


mm

For  $\phi$ 20~ $\phi$ 50

Temp. range	Tolerance	Response time	Durability
-50~210°C	±2.5°C (at 100°C surface)	3.0 s	B

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



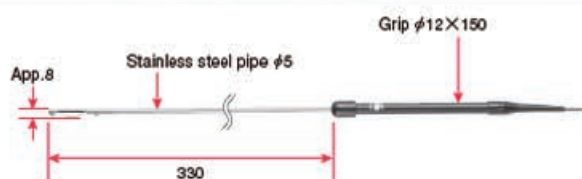
mm

For  $\phi$ 6~ $\phi$ 25

Temp. range	Tolerance	Response time	Durability
-50~100°C	±2.5°C (at 100°C surface)	2.0 s	S

## Pipe inside probes

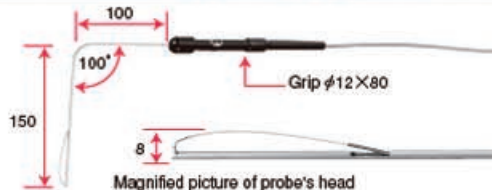
**Model 344K-TC1-ANP**  
**Model 344E-TC1-ANP**



mm

Temp. range	Tolerance	Response time	Durability
-50~400°C	±2.5°C (at 100°C surface)	5.0 s	C

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



mm

Magnified picture of probe's head

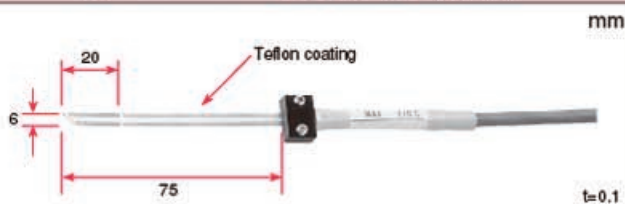
Temp. range	Tolerance	Response time	Durability
-50~220°C	±2.5°C (at 100°C surface)	2.0 s	C

### Pipe inside probes applications



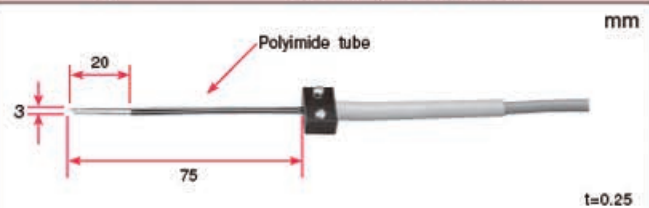
## Flat leaf probes

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



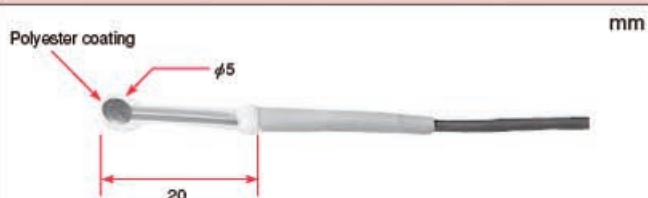
Temp. range	Tolerance	Response time	Durability
-50~210°C	±2.5°C (at 100°C)	3.0 s	S

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



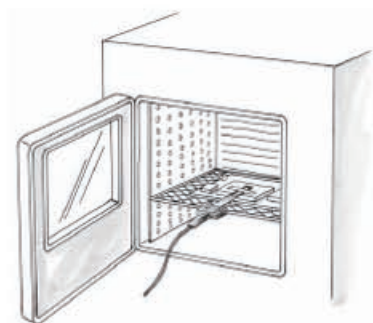
Temp. range	Tolerance	Response time	Durability
-50~400°C	±2.5°C (at 100°C)	6.0 s	S

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



Temp. range	Tolerance	Response time	Durability
-50~100°C	±2.5°C (at 100°C)	8.0 s	S

### Flat leaf probes applications



## Insertion probes

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



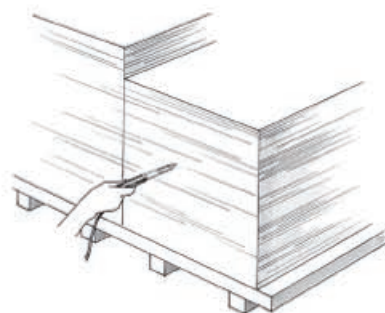
Temp. range	Tolerance	Response time	Durability
-50~210°C	±2.5°C (at 100°C)	3.0 s	S

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



Temp. range	Tolerance	Response time	Durability
-50~500°C	±2.5°C (at 100°C)	6.0 s	S

### Insertion probes applications





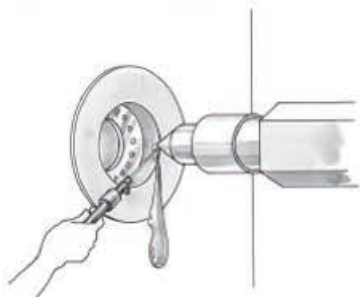
## Depth adjustable probes

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



Temp. range	Tolerance	Response time	Durability
-200~300°C	±2.5°C (at 100°C)	1.5 s	B

### Depth adjustable probes applications



## Heavy duty moving surface probes

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



Temp. range	Tolerance	Response time	Durability
-50~600°C	±2.5°C (at 100°C)	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

## Soft body probes

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



Temp. range	Tolerance	Response time	Durability
0~200°C	±2.5°C (at 100°C)	4.0 s	S

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



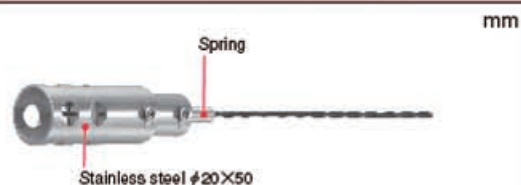
Temp. range	Tolerance	Response time	Durability
0~200°C	±2.5°C (at 100°C)	4.0 s	S

### Soft body probes applications



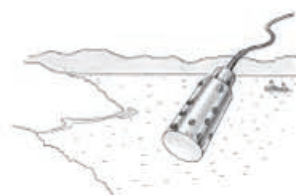
## Drop probes

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



Temp. range	Tolerance	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.