

Flat Leaf Probes

胶带状温度传感器

ST series

一体型 ST 系列

New

Tape replaceable type

STN series

胶带交换型 STN 系列

5pcs/set



ST series
一体型 ST 系列

Tape replaceable type
STN series
胶带交换型 STN 系列

Tape part 胶带部
5pcs/set

Extension cable
延长导线
(另售)



安立計器株式会社
ANRITSU METER CO.,LTD.



JQA-2721



JQA-EM6215

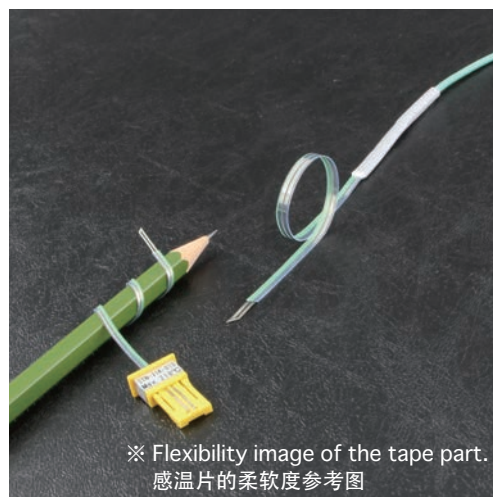
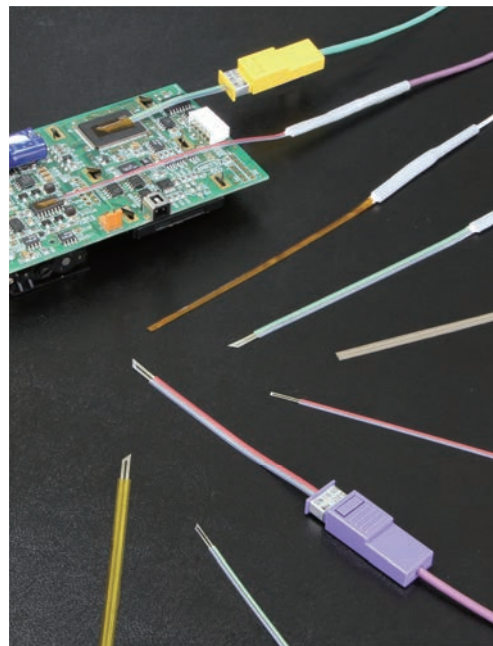
It is possible to attach the probe on a measurement object with an adhesive tape, so it becomes easy to temperature measurement.

可用胶带贴在电子零部件的表面进行温度测量。

- The heat capacity of the probe is small, so it is suitable for measured objects with low heat capacity.
将传感器的热容量控制在最小值，适合测量微小物品的表面温度。
- It can be measured in the state inserted into measured objects.
可夹于被测物中间进行测量。
- The feature of the tape part is very thin and flexible, and it is possible to be passed through to narrow gap.
感温片厚度极其微薄及柔软，微小缝隙也可插入。
- Temperature distribution can be measured by attaching more than one probes.
可用多只传感器测量温度分布。

Tape width	: 2mm (Min.)	胶带宽度	: 2mm (最小)
Thickness	: approx.0.2mm (Tape part) 0.05mm (Thermocouple)	厚度	: 约0.2mm (胶带部) 0.05mm (热电偶线)
Temp.range	: Max.400℃* (Polyimide coating)	使用温度	: Max.400℃* (聚酰亚胺外膜)
Sheath material	: Teflon, Polyimide	包覆材质	: 铁氟龙, 聚酰亚胺

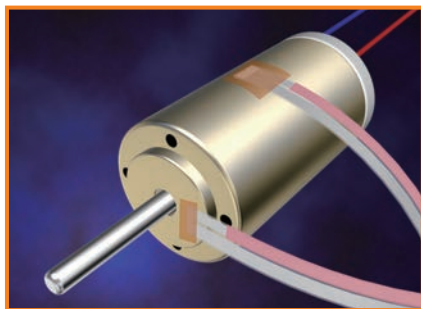
* Make sure to refer to the notes about the operating temperature range for the probes.
These notes are listed in the back of this catalog.
可使用最高温度的注意事项请参考商品目录的最后一页。



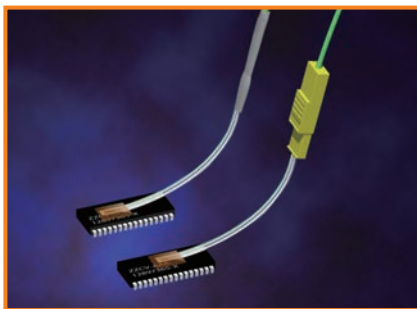
※ Flexibility image of the tape part.
感温片的柔软度参考图

Applications 产品用途例

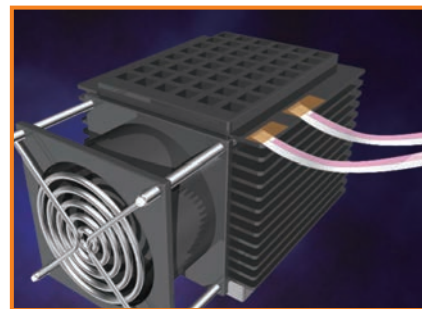
Thermal control of motors
发动机的发热管理



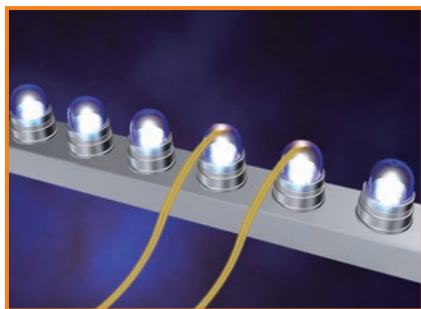
Measuring the temperature of
electronic components
电子零件的温度测量



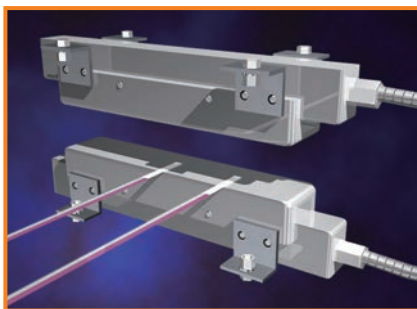
Measuring the heat dissipation
of heat sinks
散热器的放热测试



Measuring the heat production of LEDs
LED的发热测试



Measuring the heat-sealing temperature
热封装设备的温度检测



Custom temperature probes

We can also provide custom products tailored to specific needs. Please contact us for details.

特制品温度传感器

按照客户的要求，可以特制各种产品，请随时来电查询。

It can be chosen the tape with a cable type or the tape replaceable type according to application.

可根据用途选择一体型或可交换型。

Specific componets(Tape tip shape, width, coating, and length) may be combined to manufacture for the needs of customer's specific application.

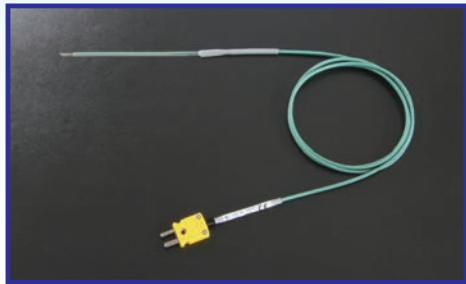
感温片的宽度和前端的形状，包膜种类，胶带的长度等可根据用途自由选配。

ST series

page 4

ST 系列（一体型）

第 4 页



- Tape with cable type.
一体型

STN series (Tape replaceable type)

page 8

STN 系列（胶带交换型）

第 8 页

An extension cable is required for the tape replaceable type. 使用胶带交换类型时，需要延长导线。

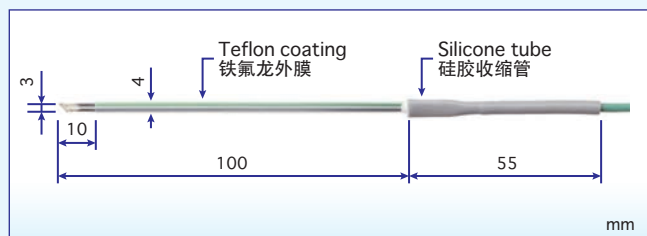
Tape part (5pcs/set)
胶带部 (5pcs/set)

Extension cable
延长导线

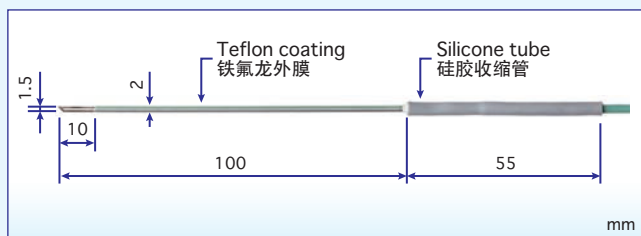


- The tape part is 5pieces per set.
可交换型感温片为5只1组

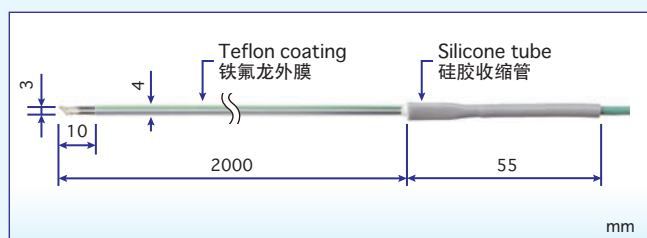
- It is possible to exchange the tape part.
可更换专用感温片

Type E model : **ST-11E-010-TS1-ANP**Type K model : **ST-11K-010-TS1-ANP**

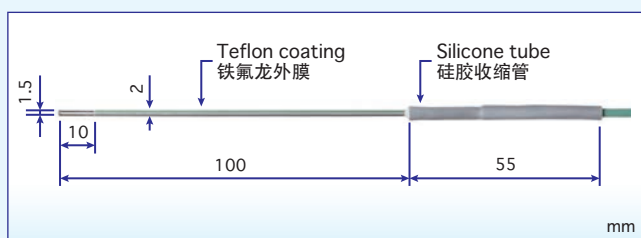
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **ST-31E-010-TS1-ANP**Type K model : **ST-31K-010-TS1-ANP**

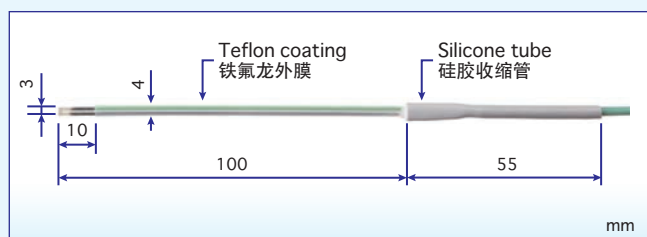
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **ST-11E-200-TS1-ANP**Type K model : **ST-11K-200-TS1-ANP**

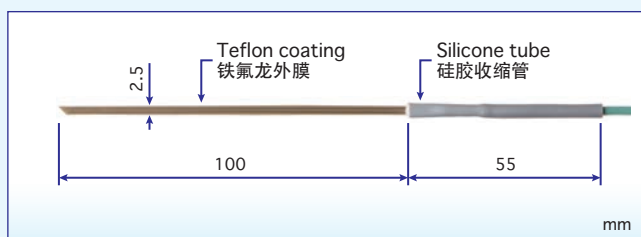
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **ST-41E-010-TS1-ANP**Type K model : **ST-41K-010-TS1-ANP**

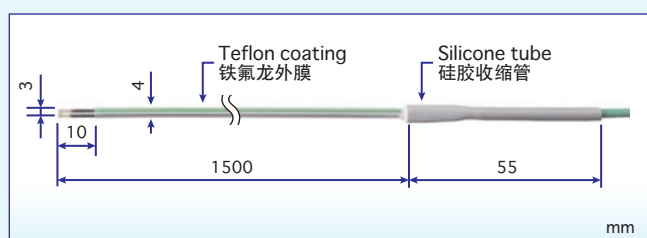
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **ST-21E-010-TS1-ANP**Type K model : **ST-21K-010-TS1-ANP**

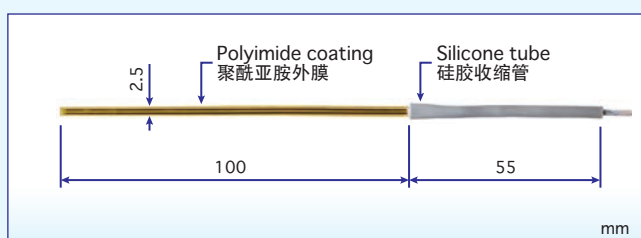
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **ST-32E-010-TS1-ANP**Type K model : **ST-32K-010-TS1-ANP**

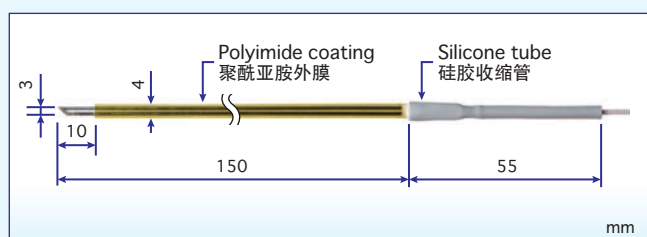
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	8s

Type E model : **ST-21E-150-TS1-ANP**Type K model : **ST-21K-150-TS1-ANP**

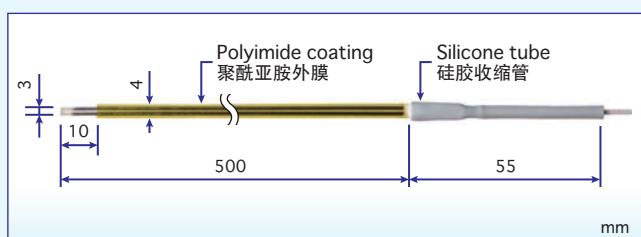
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **ST-44E-010-GW1-ANP**Type K model : **ST-44K-010-GW1-ANP**

Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~400℃ *1	±2.5℃ (at 100℃) (在 100℃)	8s

Type E model : **ST-13E-015-GW1-ANP**Type K model : **ST-13K-015-GW1-ANP**

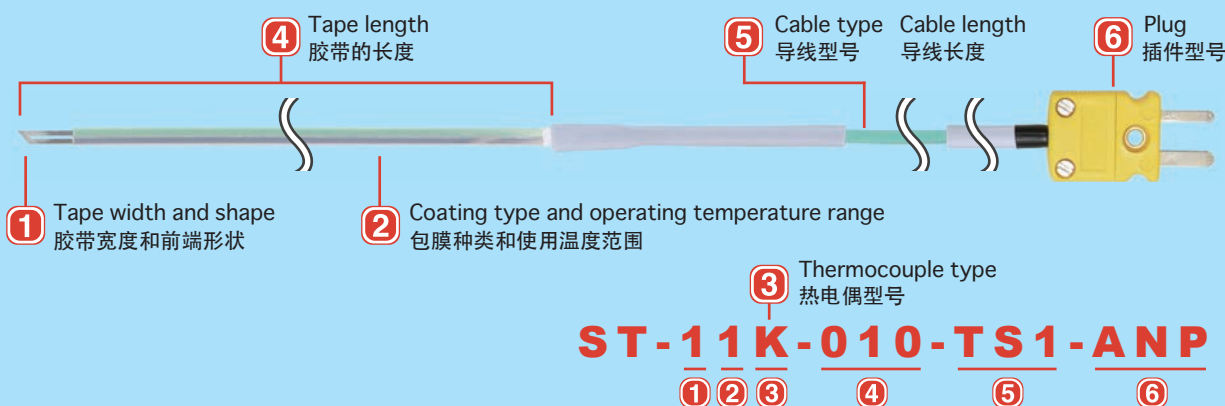
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~400℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **ST-23E-050-GW1-ANP**Type K model : **ST-23K-050-GW1-ANP**

Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~350℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

*1 Make sure to refer to the notes about the operating temperature range. These notes are listed in the back of this catalog.
使用温度范围注意事项记载在卷尾，请务必参照。

How to order 如何选择



① Tape width and shape 胶带宽度和前端形状

② Coating type and operating temperature range 包膜种类和使用温度范围

Select the type best-suited to the shape of the measured object and service conditions.

请按测量对象的形状·环境，选择产品。

		①	
		Tape width Standard type 胶带宽度 标准型	Tape width Narrow type 胶带宽度 狭窄型
		Shape Sharp 前端形状 尖形 ST-1* Features 特长 • Recognizable hot junction (The sharp tip is the hot junction.) • 热接触点一目了然 (尖端部分是热接触点)	Shape Flat 前端形状 平形 ST-2* Features 特长 • Easy to insert • 容易夹住
		Shape Sharp 前端形状 尖形 ST-3* Features 特长 • Recognizable hot junction (The sharp tip is the hot junction.) • Suitable for measured objects with low heat capacity • 热接触点一目了然 (尖端部分是热接触点) • 适用于热容量较小的测试对象	Shape Flat 前端形状 平形 ST-4* Features 特长 • Easy to insert • Suitable for measured objects with low heat capacity • 容易夹住 • 适用于热容量较小的测试对象
Low temperature Teflon coating 低温用 铁氟龙外膜	Open 前端露出 ST-*1 Temp. range : -50~210°C ※1 Features 特长 • High response speed • 响应速度快	ST-11 Thickness t=0.2mm 厚度	ST-21 Thickness t=0.2mm 厚度
	All coating 绝缘 ST-*2 Temp. range : -50~210°C ※1 Features 特长 • Resistance to chemicals • High noise immunity • 耐药品性 · 耐干扰	ST-12 Thickness t=0.2mm 厚度 Thickness (Tip) t=0.26mm 厚度(前端)	ST-22 Thickness t=0.2mm 厚度 Thickness (Tip) t=0.26mm 厚度(前端)
	Open 前端露出 ST-*3 Temp. range : -50~400°C ※1 Max. temperature of 350°C when the tape length exceeds 150mm 胶带的长度超过 150mm 时, MAX.350°C Features 特长 • High response speed • 响应速度快	ST-13 Thickness t=0.17mm 厚度	ST-23 Thickness t=0.17mm 厚度
	All coating 绝缘 ST-*4 Temp. range : -50~400°C ※1 Max. temperature of 350°C when the tape length exceeds 150mm 胶带的长度超过 150mm 时, MAX.350°C Features 特长 • Resistance to chemicals • High noise immunity • 耐药品性 · 耐干扰	ST-14 Thickness t=0.17mm 厚度 Thickness (Tip) t=0.22mm 厚度(前端)	ST-24 Thickness t=0.17mm 厚度 Thickness (Tip) t=0.22mm 厚度(前端)
High temperature Polyimide coating 高温用 聚酰亚胺外膜	Open 前端露出 ST-*3 Temp. range : -50~400°C ※1 Max. temperature of 350°C when the tape length exceeds 150mm 胶带的长度超过 150mm 时, MAX.350°C Features 特长 • High response speed • 响应速度快	ST-13 Thickness t=0.17mm 厚度	ST-23 Thickness t=0.17mm 厚度
	All coating 绝缘 ST-*4 Temp. range : -50~400°C ※1 Max. temperature of 350°C when the tape length exceeds 150mm 胶带的长度超过 150mm 时, MAX.350°C Features 特长 • Resistance to chemicals • High noise immunity • 耐药品性 · 耐干扰	ST-14 Thickness t=0.17mm 厚度 Thickness (Tip) t=0.22mm 厚度(前端)	ST-24 Thickness t=0.17mm 厚度 Thickness (Tip) t=0.22mm 厚度(前端)

※1 Make sure to refer to the notes about the operating temperature range. These notes are listed in the back of this catalog.
使用温度范围注意事项记载在卷尾，请务必参照。

About products made of polyimide 关于含聚酰亚胺的产品

Some Anritsu Meter products are made of polyimide. Since polyimide may adversely affect humans, avoid using such products in applications where they may come into contact with food, internal organs, or bodily fluids.
本公司提供的一部分产品中使用了聚酰亚胺。聚酰亚胺有可能对身体带来不良影响，在与食品和体内液体直接接触的情况下，请避免使用。

③ Thermocouple type 热电偶型号

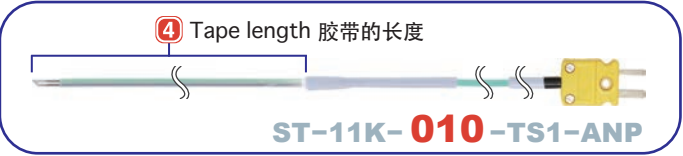
Select the same type of thermocouple as thermometer.
选择与温度计主机同型号的热电偶

Select a Type-E or Type-K thermocouple.
选择热电偶种类，E 型或 K 型。

When thermocouple type of thermometer is Type-E 温度计主机的热电偶型号 [E 型]	When thermocouple type of thermometer is Type-K 温度计主机的热电偶型号 [K 型]
E Chromel-Constantan	K Chromel-Alumel

④ Tape length 胶带的长度

Select a tape length suited to the specific application.
根据用途，请选择适合的长度。

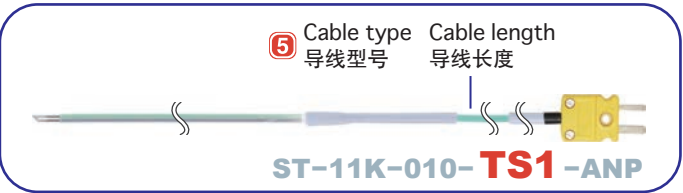


Tape length	胶带的长度
	30mm 003
	50mm 005
	80mm 008
	100mm 010
	150mm 015
	200mm 020
	300mm 030
	400mm 040
	500mm 050
	1000mm 100
	1500mm 150
	2000mm 200

⑤ Cable type Cable length 导线型号 导线长度

The cable length can be specified in 0.5m increments.
Standard specifications
Low temperature : [TS cable 1m]
High temperature : [GW cable 1m]

可以指定导线长度，单位为 0.5m。
标准导线
低温用 : [TS 导线 1m]
高温用 : [GW 导线 1m]



	Thermocouple type 对应热电偶种类	Cable outer diameter 导线外径 (mm)	Sheath material 材质	Heat resistant 耐温 (°C)	Notes 备注
TS	E , K	φ 2.3	Silicone rubber 硅胶	240	Low temperature 低温用 ST- * 1、ST- * 2
GW	E , K	1.2 × 1.7	Grass fiber 玻璃纤维	300	High temperature 高温用 ST- * 3、ST- * 4
0	E , K	—	—	—	Without cable. Tape is directly attached to the plug. 无导线，直接安装插件

⑥ Plug 插件型号

Select the type that best fits the shape of the plug of the thermometer.
请选择与温度计主机的插件形状符合的插头。



ASP	ANP	W	WT3 WT4 WT5	WC3 WC4 WC5
Anritsu standard plug	Miniature plug	Without plug	Spade terminal for φ 3mm Spade terminal for φ 4mm Spade terminal for φ 5mm	Ring terminal for φ 3mm Ring terminal for φ 4mm Ring terminal for φ 5mm
				

Specifications of ST ST 系列的使用说明

Model number 型号 ^{※1}		ST- * 1 ■	ST- * 2 ■	ST- * 3 ■	ST- * 4 ■
Thermocouple type 热电偶型号		Type K or E			
Temp. range ^{※2} 温度范围		-50~210℃	-50~210℃	Tape length 胶带的长度 ≤150mm: -50 ~ 400℃ Tape length 胶带的长度 >150mm: -50 ~ 350℃	
Tolerance ^{※3} 精度	-50℃ ≤ t < -40℃	±3.5℃	±3.5℃	±3.5℃	±3.5℃
	0℃	±2.5℃	±2.5℃	±2.5℃	±2.5℃
	100℃	±2.5℃	±2.5℃	±2.5℃	±2.5℃
	200℃	±2.5℃	±2.5℃	±2.5℃	±2.5℃
	300℃	—	—	±2.5℃	±2.5℃
	400℃	—	—	±3.0℃	±3.0℃
	Tolerance calculation method 精度的计算方法 t: Temperature 温度	-50℃ ≤ t < -40℃: ±3.5℃ -40℃ ≤ t < 333℃: ±2.5℃ 333℃ ≤ t ≤ 400℃: (0.0075 × t)℃			
Response time 响应速度 ^{※4}		2s	8s	2s	8s
Durability 耐久性		Can not evaluate because of special-application 由于特殊构造无法评价			
Repair 修理		Non-repairable 不可修理品			

※1 The asterisk (*) is replaced by the number of the model name you selected. The (■) symbol is replaced by the corresponding thermocouple type (E or K). The rest of the type name is omitted.

型号的 * 里, 输入能选择型号的数字, ■里输入热电偶种类 (E 型或 K 型)。并, 省略热电偶种类以下的型号。

※2 The operating temperature limit is determined by the allowable temperature limit of the sensor head contacts the measurement target. Note that the operating temperature limit is not the same as the allowable temperature limits of the grip, cord, and plug. Make sure to refer to the notes about the operating temperature range for the Model ST/STN series probes. These notes are listed in the back of this catalog. 使用极限温度是根据传感器前端的耐热温度来决定。请注意, 夹扣, 导线和插头等部分的耐热温度与使用极限温度有一定的差异。ST/STN 系列的使用温度范围记载在卷尾, 请务必参照。

※3 Tolerances are defined based on the inner temperature of measured objects with sufficient heat capacity that falls within in the specified operating temperature range. To determine tolerances for -40℃ and above that are not listed in the table above, refer to the "Tolerance calculation method" section. 精度规定在有充分热容量的内部温度使用温度范围内。-40℃以上, 未列表的精度请参照精度的计算方法。

※4 The response speed is the time required to detect 99% of the true value when measuring the temperature of boiling water or vapor. 响应速度是指, 测量沸腾水或沸腾蒸气时, 到达真值的 99% 时所需要的时间。

How to order 如何选择

ST-11K-010-TS1-ANP

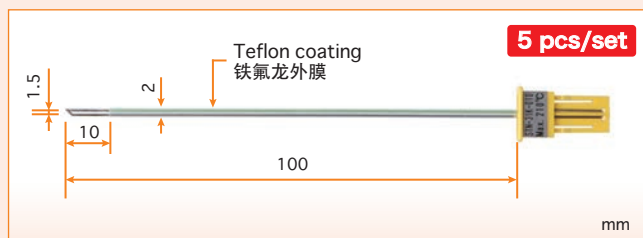
① ② ③ ④ ⑤ ⑥

①	Tape width and shape 胶带宽度和前端形状	1	Standard type: Sharp 标准型 尖形
		2	Standard type: Flat 标准型 平形
		3	Narrow type: Sharp 狭窄型 尖形
		4	Narrow type: Flat 狭窄型 平形
②	Coating type and operating temperature range 包膜种类和使用温度范围	1	Low temperature: Teflon coating (open) 低温用 铁氟龙接地 (前端露出)
		2	Low temperature: All Teflon coating 低温用 铁氟龙绝缘
		3	High temperature: Polyimide coating (open) 高温用 聚酰亚胺接地 (前端露出)
		4	High temperature: All Polyimide coating 高温用 聚酰亚胺绝缘
③	Thermocouple type 热电偶型号	E	Chromel-Constantan
		K	Chromel-Alumel
④	Tape length 胶带的长度	003	30mm
		005	50mm
		008	80mm
		010	100mm
		015	150mm
		020	200mm
		⋮	⋮
		100	1000mm
		⋮	⋮
		200	2000mm

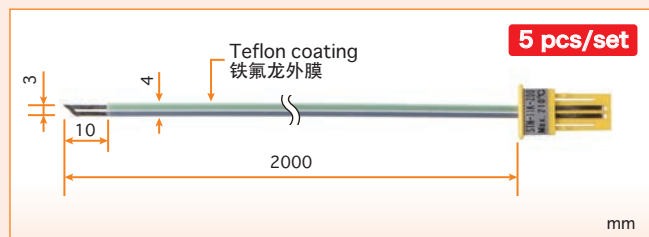
⑤	Cable type 导线型号	TS	φ 2.3mm Silicone rubber insulated cable φ 2.3mm 硅胶
		GW	1.2×1.7mm Garass fiber insulated cable 1.2×1.7mm 玻璃纤维
		0	Without cable 无导线
	Cable length 导线长度	1	1m
		1.5	1.5m
		2	2m
		2.5	2.5m
⋮		⋮	
⑥	Plug 插件型号	ASP	Anritsu standard plug
		ANP	Miniature plug
		W	Without plug
		WT3	Spade terminal for φ 3mm
		WT4	Spade terminal for φ 4mm
		WT5	Spade terminal for φ 5mm
		WC3	Ring terminal for φ 3mm
		WC4	Ring terminal for φ 4mm
		WC5	Ring terminal for φ 5mm

Type E model : **STN-11E-010**Type K model : **STN-11K-010**

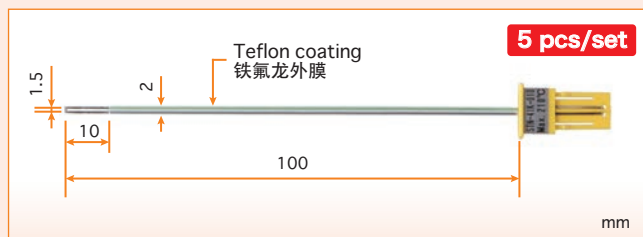
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **STN-31E-010**Type K model : **STN-31K-010**

Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **STN-11E-200**Type K model : **STN-11K-200**

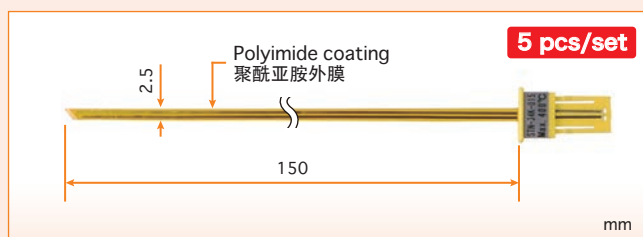
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **STN-41E-010**Type K model : **STN-41K-010**

Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **STN-21E-010**Type K model : **STN-21K-010**

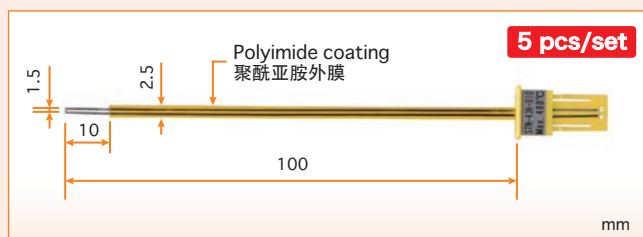
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **STN-34E-015**Type K model : **STN-34K-015**

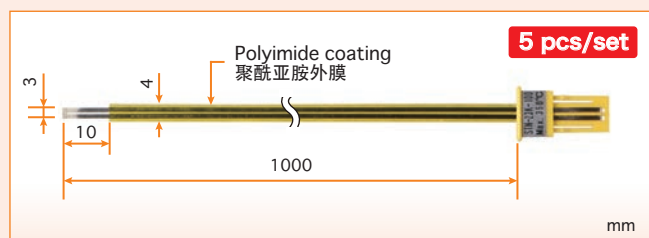
Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~400℃ *1	±2.5℃ (at 100℃) (在 100℃)	8s

Type E model : **STN-11E-015**Type K model : **STN-11K-015**

Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~210℃ *1	±2.5℃ (at 100℃) (在 100℃)	8s

Type E model : **STN-43E-010**Type K model : **STN-43K-010**

Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~400℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Type E model : **STN-23E-100**Type K model : **STN-23K-100**

Temp.range 温度范围	Tolerance 精度	Response time 响应速度
-50~350℃ *1	±2.5℃ (at 100℃) (在 100℃)	2s

Extension cable

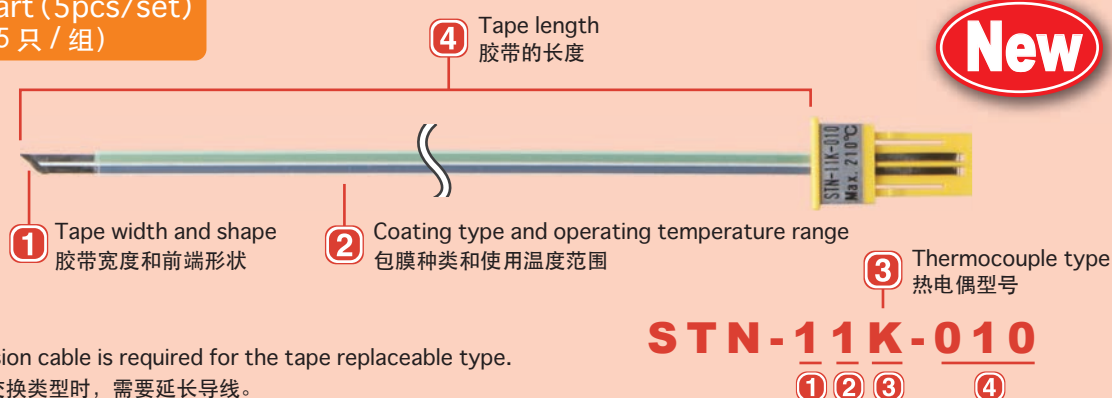
Type E model : **STN-E-TS1-ANP**Type K model : **STN-K-TS1-ANP**

*1 Make sure to refer to the notes about the operating temperature range. These notes are listed in the back of this catalog.
使用温度范围注意事项记载在卷尾，请务必参照。



How to order 如何选择

Tape part (5pcs/set)
胶带部 (5只 / 组)



An extension cable is required for the tape replaceable type.
使用胶带交换类型时，需要延长导线。

① Tape width and shape 胶带宽度和前端形状

② Coating type and operating temperature range 包膜种类和使用温度范围

Select the type best-suited to the shape of the measured object and service conditions.
请按测量对象的形状·环境，选择产品。

	Tape width Standard type 胶带宽度 标准型	Tape width Narrow type 胶带宽度 狭窄型
	Shape Sharp 前端形状 尖形 STN-1 * Features 特长 - Recognizable hot junction (The sharp tip is the hot junction.) - 热接触点一目了然 (尖端部分是热接触点)	Shape Flat 前端形状 平形 STN-2 * Features 特长 - Easy to insert - 容易夹住
	Shape Sharp 前端形状 尖形 STN-3 * Features 特长 - Recognizable hot junction (The sharp tip is the hot junction.) - Suitable for measured objects with low heat capacity - 热接触点一目了然 (尖端部分是热接触点) - 适用于热容量较小的测试对象	Shape Flat 前端形状 平形 STN-4 * Features 特长 - Easy to insert - Suitable for measured objects with low heat capacity - 容易夹住 - 适用于热容量较小的测试对象
Low temperature Teflon coating 低温用 铁氟龙外膜	Open 前端露出 STN- * 1 Temp. range : -50~210°C ※1 Features 特长 - High response speed - 响应速度快 STN-11 Thickness t=0.2mm 厚度	STN-21 Thickness t=0.2mm 厚度
	STN-12 Thickness t=0.2mm 厚度 Thickness (Tip) t=0.26mm 厚度 (前端)	STN-22 Thickness t=0.2mm 厚度 Thickness (Tip) t=0.26mm 厚度 (前端)
	STN-13 Thickness t=0.17mm 厚度	STN-23 Thickness t=0.17mm 厚度
High temperature Polyimide coating 高温用 聚酰亚胺外膜	Open 前端露出 STN- * 3 Temp. range : -50~400°C ※1 Max. temperature of 350°C when the tape length exceeds 150mm 胶带的长度超过 150mm 时，MAX.350°C Features 特长 - High response speed - 响应速度快 STN-14 Thickness t=0.17mm 厚度 Thickness (Tip) t=0.22mm 厚度 (前端)	STN-31 Thickness t=0.2mm 厚度
	STN-12 Thickness t=0.2mm 厚度 Thickness (Tip) t=0.26mm 厚度 (前端)	STN-32 Thickness t=0.2mm 厚度 Thickness (Tip) t=0.26mm 厚度 (前端)
	STN-13 Thickness t=0.17mm 厚度	STN-33 Thickness t=0.17mm 厚度
	STN-14 Thickness t=0.17mm 厚度 Thickness (Tip) t=0.22mm 厚度 (前端)	STN-34 Thickness t=0.17mm 厚度 Thickness (Tip) t=0.22mm 厚度 (前端)

※1 Make sure to refer to the notes about the operating temperature range.
These notes are listed in the back of this catalog.
使用温度范围注意事项记载在卷尾，请务必参照。

About products made of polyimide 关于含聚酰亚胺的产品

Some Anritsu Meter products are made of polyimide.
Since polyimide may adversely affect humans, avoid using such products in applications where they may come into contact with food, internal organs, or bodily fluids.
本公司提供的一部分产品中使用了聚酰亚胺。
聚酰亚胺有可能对身体带来不良影响，在与食品和体内液体直接接触的情况下，请避免使用。

③ Thermocouple type 热电偶型号

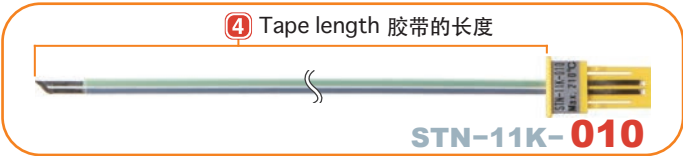
Select the same type of thermocouple as thermometer, tape part, and extension cable.
请选择同种热电偶的温度计主机·胶带部·延长导线。

Select a Type-E or Type-K thermocouple.
选择热电偶种类，E 型或 K 型。

When thermocouple type of thermometer and extension cable is Type-E 温度计主机·胶带部·延长导线的热电偶型号 [E 型]	When thermocouple type of thermometer and extension cable is Type-K 温度计主机·胶带部·延长导线的热电偶型号 [K 型]
E Chromel-Constantan	K Chromel-Alumel

④ Tape length 胶带的长度

Select a tape length suited to the specific application.
根据用途，请选择适合的长度。



Tape length	胶带的长度
	30mm 003
	50mm 005
	80mm 008
	100mm 010
	150mm 015
	200mm 020
	300mm 030
	400mm 040
	500mm 050
	1000mm 100
	1500mm 150
	2000mm 200

Specifications of STN STN 系列的使用说明

Model number 型号※1	STN-※1■	STN-※2■	STN-※3■	STN-※4■
Thermocouple type 热电偶型号	Type K or E			
Temp. range※2 温度范围	-50~210℃	-50~210℃	Tape length 胶带的长度 ≤150mm: -50 ~ 400℃ Tape length 胶带的长度 >150mm: -50 ~ 350℃	
Tolerance 精度※3	-50℃ ≤ t < -40℃	±3.5℃	±3.5℃	±3.5℃
	0℃	±2.5℃	±2.5℃	±2.5℃
	100℃	±2.5℃	±2.5℃	±2.5℃
	200℃	±2.5℃	±2.5℃	±2.5℃
	300℃	—	±2.5℃	±2.5℃
	400℃	—	±3.0℃	±3.0℃
Tolerance calculation method 精度的计算方法 t: Temperature 温度	-50℃ ≤ t < -40℃: ±3.5℃ -40℃ ≤ t < 333℃: ±2.5℃ 333℃ ≤ t ≤ 400℃: (0.0075 × t)℃			
Response time 响应速度※4	2s	8s	2s	8s
Durability 耐久性	Can not evaluate because of special-application 由于特殊构造无法评价			
Repair 修理	Non-repairable 不可修理品			

- ※1 The asterisk (*) is replaced by the number of the model name you selected. The (■) symbol is replaced by the corresponding thermocouple type (E or K).
The rest of the type name is omitted.
型号的 * 里，输入能选择型号的数字，■里输入热电偶种类 (E 型或 K 型)。并，省略热电偶种类以下的型号。
- ※2 The operating temperature limit is determined by the allowable temperature limit of the sensor head contacts the measurement target.
Note that the operating temperature limit is not the same as the allowable temperature limits of the grip, cord, and plug. Make sure to refer to the notes about the operating temperature range for the Model ST/STN series probes. These notes are listed in the back of this catalog.
使用极限温度是根据传感器前端的耐热温度来决定。请注意，夹扣、导线和插头等部分的耐热温度与使用极限温度有一定的差异。ST/STN 系列的使用温度范围记载在卷尾，请务必参照。
- ※3 Tolerances are defined based on the inner temperature of measured objects with sufficient heat capacity that falls within in the specified operating temperature range.
To determine tolerances for -40℃ and above that are not listed in the table above, refer to the "Tolerance calculation method" section.
精度规定在有充分热容量的内部温度使用温度范围内。-40℃ 以上，未列表的精度请参照精度的计算方法。
- ※4 The response speed is the time required to detect 99% of the true value when measuring the temperature of boiling water or vapor.
响应速度是指，测量沸腾水或沸腾蒸气时，到达真值的 99% 时所需要的时间。

How to order 如何选择

STN-11K-010

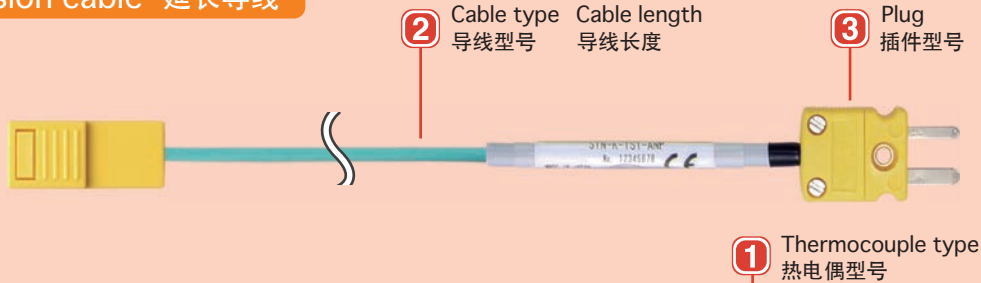
① ② ③ ④

①	Tape width and shape 胶带宽度和前端形状	1	Standard type: Sharp 标准型 尖形
		2	Standard type: Flat 标准型 平形
		3	Narrow type: Sharp 狭窄型 尖形
		4	Narrow type: Flat 狭窄型 平形
②	Coating type and operating temperature range 包膜种类和使用温度范围	1	Low temperature: Teflon coating (open) 低温用 铁氟龙接地 (前端露出)
		2	Low temperature: All Teflon coating 低温用 铁氟龙绝缘
		3	High temperature: Polyimide coating (open) 高温用 聚酰亚胺接地 (前端露出)
		4	High temperature: All Polyimide coating 高温用 聚酰亚胺绝缘
③	Thermocouple type 热电偶型号	E	Chromel-Constantan
		K	Chromel-Alumel
		003	30mm
		005	50mm
④	Tape length 胶带的长度	008	80mm
		010	100mm
		015	150mm
		020	200mm
		...	...
		100	1000mm
		...	...
		200	2000mm



How to order 如何选择

Extension cable 延长导线



STN-K-TS1-ANP

① ② ③

① Thermocouple type 热电偶型号

Select the same type of thermocouple as thermometer, tape part, and extension cable.

请选择同种热电偶的温度计主机·胶带部·延长导线。

Select a Type-E or Type-K thermocouple.
选择热电偶种类，E 型或 K 型。

When thermocouple type of thermometer and tape part is Type-E
温度计主机·胶带部·延长导线的热电偶型号 [E 型]

E Chromel-Constantan

When thermocouple type of thermometer and tape part is Type-K
温度计主机·胶带部·延长导线的热电偶型号 [K 型]

K Chromel-Alumel

② Cable type Cable length

The cable length can be specified in 0.5m increments.
Standard specifications : [TS cable 1m]

导线型号 导线长度

可以指定导线长度，单位为 0.5m。
标准导线：[TS 导线 1m]

	Thermocouple type 对应热电偶种类	Cable outer diameter 导线外径 (mm)	Sheath material 材质	Heat resistant 耐温 (°C)	Notes 备注
TS	E, K	φ 2.3	Silicone rubber 硅胶	240	Standard cable 标准导线

③ Plug 插件型号

Select the type that best fits the shape of the plug of the thermometer. 请选择与温度计主机的插件形状符合的插头。

ASP	ANP	W	WT3 WT4 WT5	WC3 WC4 WC5
Anritsu standard plug	Miniature plug	Without plug	Spade terminal for φ 3mm Spade terminal for φ 4mm Spade terminal for φ 5mm	Ring terminal for φ 3mm Ring terminal for φ 4mm Ring terminal for φ 5mm

How to order 如何选择

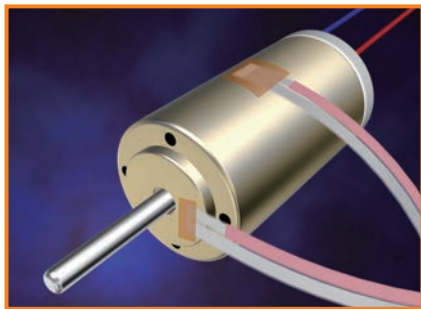
STN-K-TS1-ANP

① ② ③

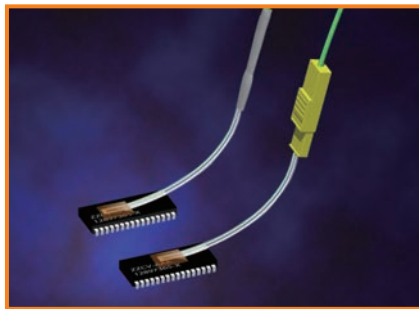
①	Thermocouple type 热电偶型号	E Chromel-Constantan K Chromel-Alumel
②	Cable type 导线型号	TS φ 2.3mm Silicone rubber insulated cable φ 2.3mm 硅胶
②	Cable length 导线长度	1 1m 1.5 1.5m 2 2m 2.5 2.5m ⋮ ⋮
③	Plug 插件型号	ASP Anritsu standard plug ANP Miniature plug W Without plug WT3 Spade terminal for φ 3mm WT4 Spade terminal for φ 4mm WT5 Spade terminal for φ 5mm WC3 Ring terminal for φ 3mm WC4 Ring terminal for φ 4mm WC5 Ring terminal for φ 5mm

Applications 产品用途例

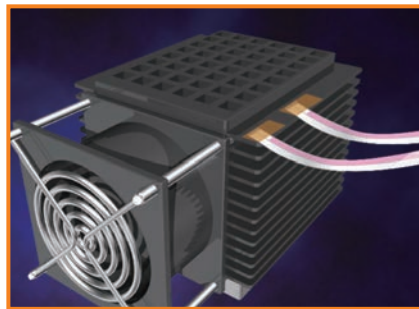
Thermal control of motors
发动机的发热管理



Measuring the temperature of
electronic components
电子零件的温度测量



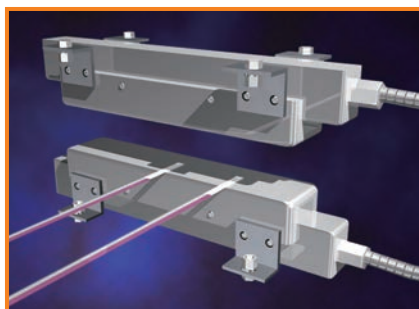
Measuring the heat dissipation
of heat sinks
散热器的放热测试



Measuring the heat production of LEDs
LED的发热测试



Measuring the heat-sealing temperature
热封装设备的温度检测



Custom temperature probes

We can also provide custom products tailored to specific needs. Please contact us for details.

特制品温度传感器

按照客户的要求，可以特制各种产品，请随时来电查询。

Operating temperature range for ST series/STN series

The ST series/STN series probes are designed to be used with the tape part glued to the surface of measured objects. The tape part can also be inserted into measured objects.

Note that when the tape part is NOT glued or inserted, the operating temperature limits are as shown in the table below.

The ST series/STN series coating is welded with a Teflon resin or glued with adhesive. If you leave the tape part exposed to open air at a temperature which exceeds the operating temperature limits shown in the table below, the coating might peel off, and the thermocouple might short out at a point other than the hot junction.

Exercise care and make sure to follow the directions for use.

关于ST系列/STN系列的使用温度范围

ST系列/STN系列适用于用胶带贴在被测物上，或夹入被测物里测量。

除了使用胶带粘贴或夹入被测物以外，请参考下表的使用温度范围。

ST系列/STN系列的外膜是以铁氟龙树脂融合，或粘贴剂粘合的。如胶带部分放置于空中，温度上升到下表使用温度范围以上时，外膜有可能脱落导致内部热电偶短路。

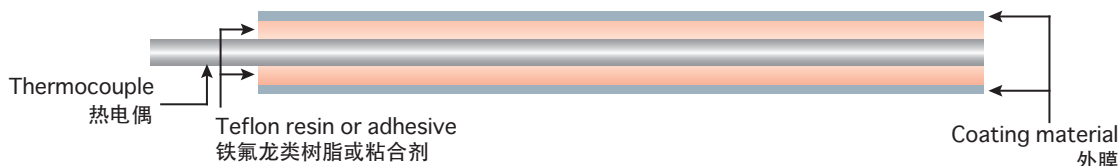
使用时，请注意使用方法。

Operating temperature limits when the ST series/STN series probes are NOT glued or inserted for use
使用于粘贴，或夹入以外时的ST系列/STN系列使用温度范围

	ST- * 1 STN- * 1	ST- * 2 STN- * 2	ST- * 3 STN- * 3	ST- * 4 STN- * 4
Tape length ≤ 150mm 胶带的长度 ≤ 150mm	200℃	180℃	200℃	200℃
150mm < Tape length 150mm < 胶带的长度	200℃	180℃	180℃	180℃

The asterisk (*) is replaced by the number of the model name you selected.
输入可选择类型名的数字在 * 里

Outline drawing of ST series/STN series ST系列/STN系列简图



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