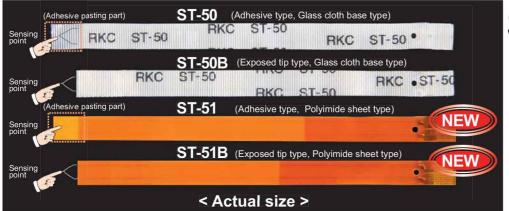
## Easy temperature measurement of tiny objects and gaps

Adhesive and exposed tip type temperature sensors (Thermocouple Type K)



ST-50/51 Series

ST-50

Adhesive type, Glass cloth base type

ST-50B

Exposed tip type, Glass cloth base type

ST-51



Adhesive type, Polyimide sheet type

ST-51B



Thickness : 0.3mm

Thickness : 0.15mm

Adhesive pasting part

Adhesiv

ST-51

Exposed tip type, Polyimide sheet type

#### Easy temperature measurement

Temperature can be measured by simply applying the tip of the sensor to a tiny object or inserting the sensor into tiny gaps.

- No dust generation (Polyimide sheet type)
- Durable adhesive tape

The adhesive tape can be repeatedly applied to and detached from various types of surfaces.

Ourability of adhesive tape>
Up to 150°C (302°F): Repeated use and detachment is available.
Up to 200°C (393°F)
When temperature stays above 150°C (302°F), repeated use and detachment is available

Up to 250°C (482°F)

When temperature stays above 200°C (392°F), repeated use and detachment is available.

Higher than 250°C (482°F)
Adhesive part will be burnt. Repeated use is not available.

Frequency of repeated use can be different based on the working conditions.

# As the heat capacity of the sensor is very small, temperature can be measured instantly. 0.1sec < ST-50 >

Fast Response

#### **Sensor Specifications**

Sheet Material	ST-50/50B : Glass cloth base sheet ST-51/51B : Polyimide sheet			
Max.Temperature	300°C (577°F)			
Thermocouple	Type K			
Size (Length x Width x Thickness)	S1-50-500 : 507 x 6.7 x 0.3 mm   ST-50B : 104 x 6.7 x 0.3 mm   ST-50B-500 : 304 x 6.7 x 0.3 mm   ST-50B-500 : 504 x 6.7 x 0.3 mm   ST-51 : 107 x 6.7 x 0.15 mm   ST-51B : 104 x 6.7 x 0.15 mm   ST-51B : 104 x 6.7 x 0.15 mm			
Element wire diameter	ST-50/50B: 50μm/100μm ST-50-300/500, ST-51-300/500: 100μm ST-51/51B: 50μm			

	Response of 95.0%	se time Response of 63.0%	Resistance value (With cable 1m)	Accuracy *
ST-50/51 (50µm element wire)	0.4 sec (Metal surface)	0.04 sec (Metal surface)	51Ω	±0.3% ±1°C
ST-50 (100µm element wire)	0.9 sec (Metal surface)	0.2 sec (Metal surface)	17Ω	±0.5% ±1°C
<b>ST-50-300</b> (100µm element wire)	0.9 sec (Metal surface)	0.2 sec (Metal surface)	41Ω	±0.5% ±1°C
ST-50-500 (100µm element wire)	0.9 sec (Metal surface)	0.2 sec (Metal surface)	66Ω	±0.5% ±1°C

<sup>\*</sup> Accuracy when temperature on metal surface is 100°C (212°F).

ST-50

Sensing point

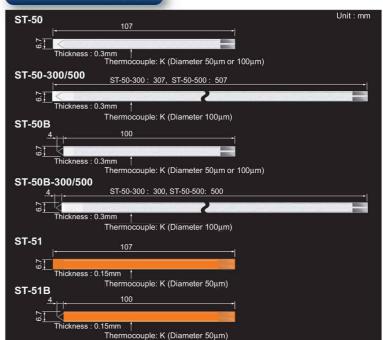
Adhesive type

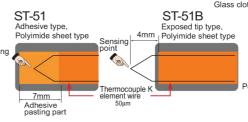
7mm

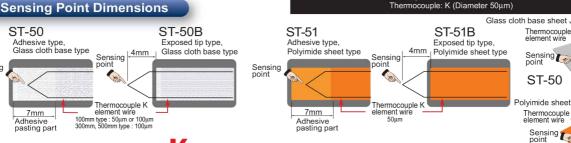
Adhesive basting part

Glass cloth base type

#### **External Dimensions**









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#### **Sensor Model Code**

■ ST-50 Adhesive type, Glass cloth base type

**ST-50** (Length : 107mm, Element Wire Diameter 50μm) 5 pieces per set

ST-50-100-D (Length : 107mm, Element Wire Diameter 100 $\mu$ m) 5 pieces per set

ST-50-300 (Length: 307mm, Element Wire Diameter 100µm) 1 piece per set

**ST-50-500** (Length : 507mm, Element Wire Diameter 100μm) 1 piece per set

■ ST-50B Exposed tip type, Glass cloth base type

ST-50B-100-04 (Length: 104mm, Element Wire Diameter 50μm) 5 pieces per set

**ST-50B-100-04-D** (Length : 104mm, Element Wire Diameter 100μm) 5 pieces per set

ST-50B-300-04 (Length: 304mm, Element Wire Diameter 100µm) 1 piece per set

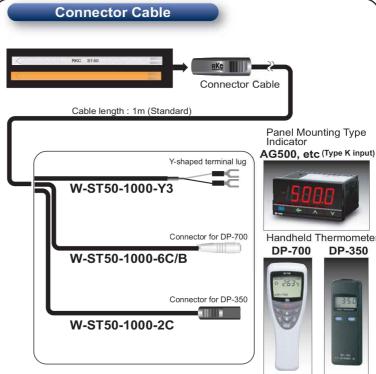
ST-50B-500-04 (Length: 504mm, Element Wire Diameter 100µm) 1 piece per set

■ **ST-51** Adhesive type, Polyimide sheet type

ST-51-100-C (Length: 107mm, Element Wire Diameter 50µm) 5 pieces per set

■ ST-51B Exposed tip type, Polyimide sheet type

ST-51B-100-04-C (Length: 104mm, Element Wire Diameter 50µm)



**Specifications** 

Connector material: Poly-carbonate Max.Temperature: 100°C (212°F)

Cable: ø0.1 x 30 Extended cable, Standard 1m

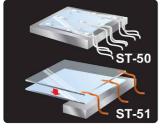
Material (Cable): Silicon coated

Approx. 40 x 12 x 13.5 mm (Length x Width x Thickness) Connector size :

#### applications

### periencing the Quality & Service Difference

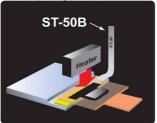
Temperature distribution on the



Temperature distribution on the surface of solar cells



Temperature inspection for



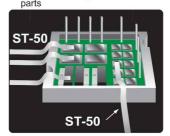
 Temperature distribution of heater (Sealing) for packing machine.



Temperature inspection for LED



Temperature inspection for electronic





- Before operating this product, read the instruction manual carefully to avoid incorrect operation.
- This product is intended for use with industrial machines, test and measuring equipment. It is not designed for use with medical equipment.
- If it is possible that an accident may occur as a result of the failure of the product or some other abnormality, an appropriate independent protection device must be

Caution for the export trade

All transactions must comply with laws, regulations, and treaties.

Caution for imitated products

As products imitating our product now appear on the market, be careful that you don't purchase these imitated products. We will not warrant such products nor bear the responsibility for any damage and/or accident caused by their use.

## $oldsymbol{\mathsf{C}}_{\scriptscriptstyle{oldsymbol{\mathsf{B}}}}$ RKC INSTRUMENT INC. (RIKA KOGYO CO.,LTD)

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