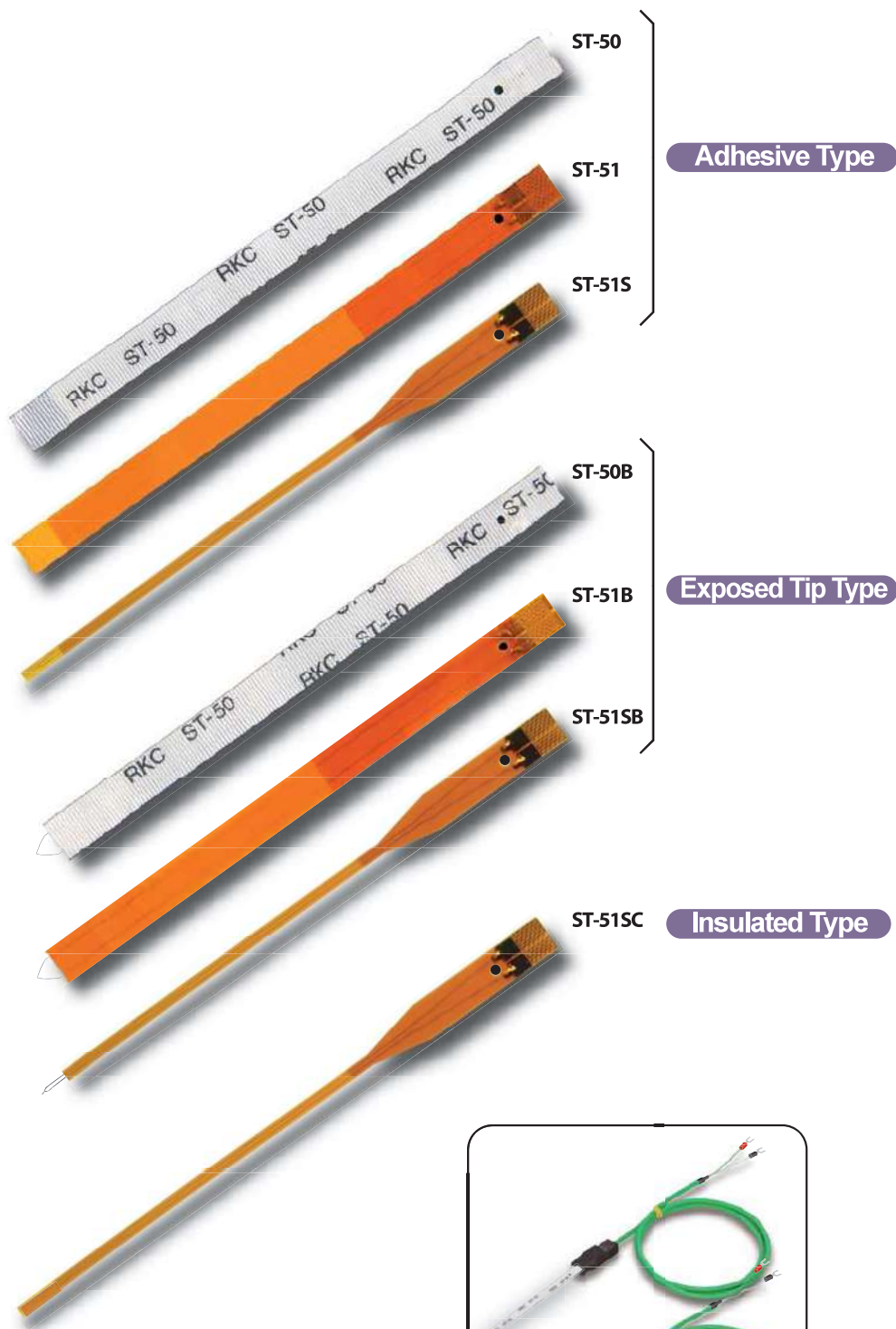


Film Type TEMPERATURE SENSORS

Film Type Temperature Sensors
(Type K Thermocouple)

ST-50 Series



RKC RKC INSTRUMENT INC

1.888.610.7664

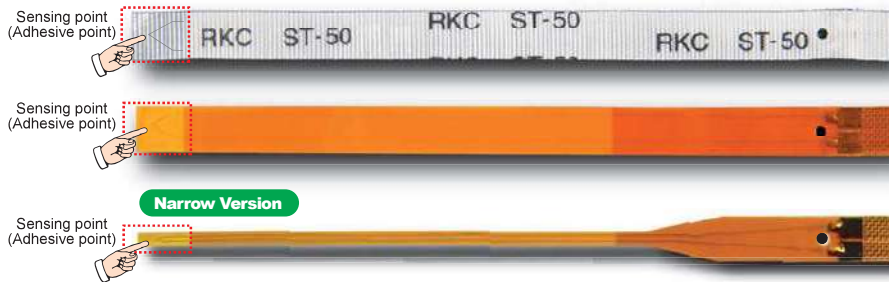


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「Self-Adhesive」「Thin Design」 Film Type Thermocouple Sensors

Adhesive Type

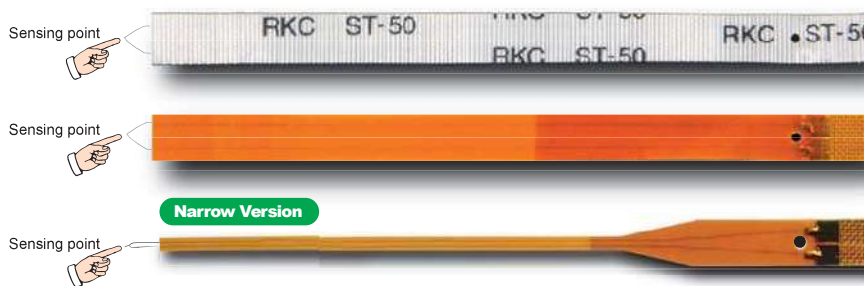


ST-50 **Max. 300°C**
Glass cloth base type

ST-51 **Max. 300°C**
Polyimide sheet type

ST-51S **Max. 300°C**
Polyimide sheet type

Exposed Tip Type

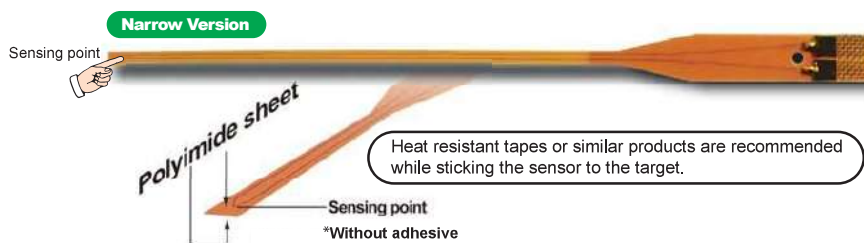


ST-50B **Max. 300°C**
Glass cloth base type

ST-51B **Max. 300°C**
Polyimide sheet type

ST-51SB **Max. 300°C**
Polyimide sheet type

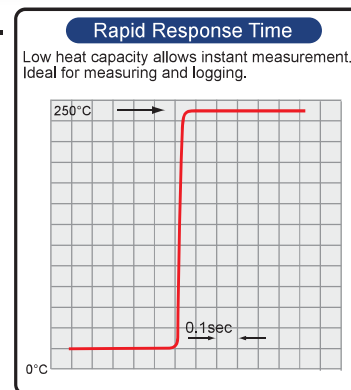
Insulated Type



NEW
ST-51SC **Max. 300°C**
Polyimide sheet type

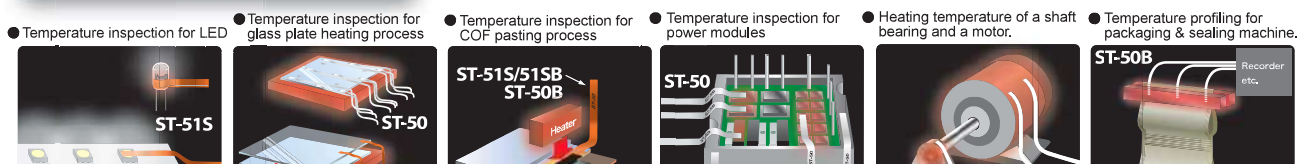
Features

- Ideal for measuring hard-to-reach target with its thin film design.
- Compatible with all Type K Thermocouple Input instruments.
- Easily stick on target with Self-Adhesive Type or insert between two touching surfaces with Exposed Tip Type. Use Polyimide (PI) Insulated Type for applications where electrical insulation is needed.



< ST-50B / ST-51B / ST-51SB characteristic curve >

Measuring Examples



0.34-mm-thick glass cloth.

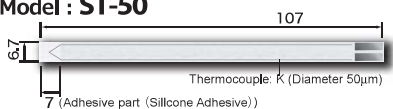

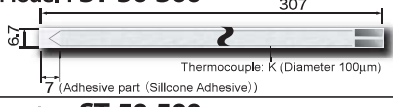

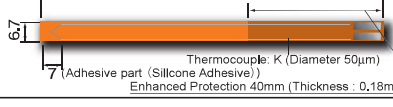
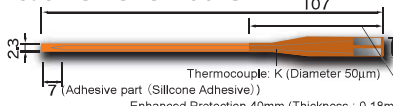
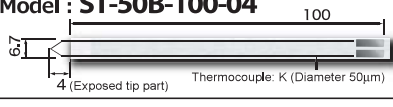
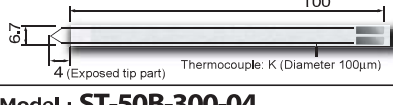
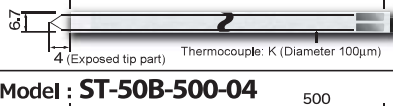
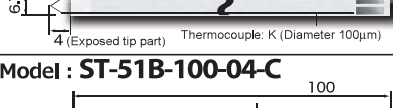
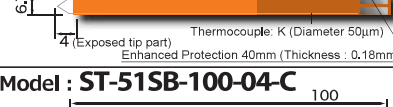

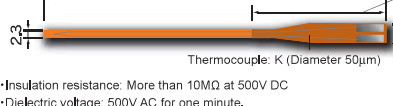
Available in lengths of 100/300/500mm.

- Thermocouple wire diameter of 50 μ m and 100 μ m are available with 100mm long sensor.
- Thermocouple wire diameter of 100 μ m is available with 300mm and 500mm long sensors.

0.13-mm-thick Polyimide (PI) film.

Ideal for using in cleanroom facilities.

- Please consult our sales representative for length of 300mm or 500mm

Model/Dimensions Unit : mm	Specification										
	Type	Film Thickness (mm)	Film Material	Measuring Range(*1)	95% of Response Time(*2)	Resistance with 1m of extension wire	Accuracy (*3)	Packaging			
Model : ST-50 	Adhesive Type	0.34	Glass cloth base	0~300°C	0.08sec.	51Ω	±1.3°C	5 pieces/pack			
Model : ST-50-100-D 						17Ω	±1.5°C	5 pieces/pack			
Model : ST-50-300 						41Ω	±1.5°C	1 piece/pack			
Model : ST-50-500 						66Ω	±1.5°C	1 piece/pack			
Model : ST-51-100-C 						51Ω	±1.3°C	5 pieces/pack			
Model : ST-51S-100-C 						0.13	Polyimide sheet	-40~+300°C	51Ω	±1.2°C	5 pieces/pack
Model : ST-50B-100-04 	Exposed Tip Type	0.34	Glass cloth base	0~300°C	0.03sec.				51Ω	±1.3°C	5 pieces/pack
Model : ST-50B-100-04-D 									17Ω	±1.5°C	5 pieces/pack
Model : ST-50B-300-04 									41Ω	±1.5°C	1 piece/pack
Model : ST-50B-500-04 									66Ω	±1.5°C	1 piece/pack
Model : ST-51B-100-04-C 									51Ω	±1.3°C	5 pieces/pack
Model : ST-51SB-100-04-C 						0.13	Polyimide sheet	-40~+300°C	51Ω	±1.2°C	5 pieces/pack
Model : ST-51SC-100-C 	Insulated Type			0.32sec.	51Ω				±1.2°C	5 pieces/pack	
<div>•Insulation resistance: More than 10MΩ at 500V DC</div> <div>•Dielectric voltage: 500V AC for one minute.</div>											

Type of sensor: Type K thermocouple element class 2

(*1) Self-Adhesive section is good for multiple uses under following conditions: 1. Object temperature $\leq 150^{\circ}\text{C}$. 2. Object temperature is maintained between 150°C and 200°C . 3. Object temperature is maintained between 250°C and 300°C .

*Result may be affected by environment and object surface condition.

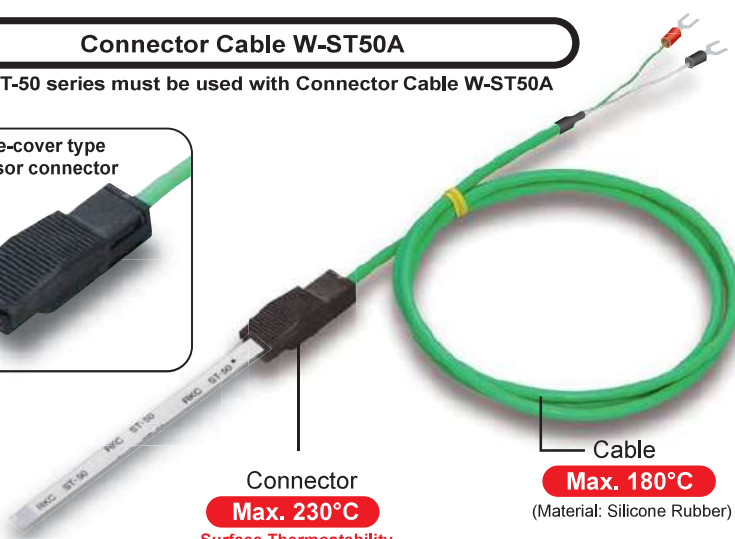
*Silicone adhesive is used and no siloxane is generated.

(*2) While measuring paraffin wax temperature of 250°C .

Connector Cable W-ST50A

* All ST-50 series must be used with Connector Cable W-ST50A

Slide-cover type
sensor connector



Connector

Max. 230°C

Surface Thermostability

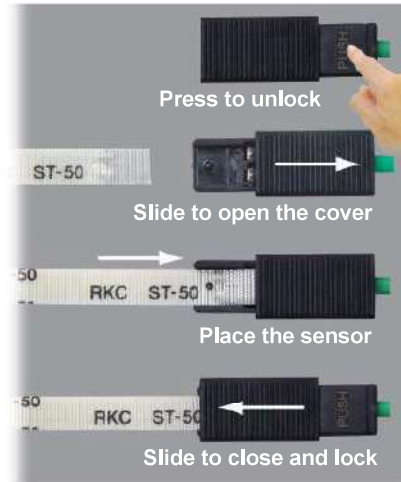
(Material: Polyphenylene sulfide (PPS))

Cable

Max. 180°C

(Material: Silicone Rubber)

Easy for sensor installation and exchange
Slide-cover type sensor connector



Connector Cable Models

ST-50 Series



Connector Cable

Cable length : 1m (Standard)

*Please consult our sales representative for cable length other than 1m

Connector Cable Specification

Connector material: Polyphenylene sulfide (PPS)

Connector Surface thermostability: 230°C

Cable material: Silicone Rubber(Green)

Cable thermostability: 180°C

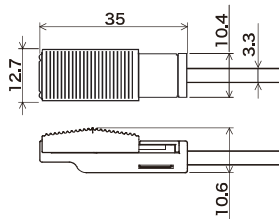
Thermocouple Extension Wire: KX Class 1, $\Phi 3.3\text{mm}$ Standard 1m

Resistance with 1m cable: 8.5 Ω or less

Weight: Approx. 20g (1m cable, Y-shaped terminal lug)

● Connector Cable Dimensions

Unit : mm



W-ST50A-1000-Y3

Y-shaped terminal lug

W-ST50A-1000-N

Solder

W-ST50A-1000-C

Non-treatment

W-ST50A-1000-TM1

Miniature-Thermocouple connector plug (CMP-01)

W-ST50A-1000-6C

Connector for DP-700

W-ST50A-1000-3C

Connector for DP-350

Indicator, Controller, Recorder

AG500, etc

FZ Series, etc

VGR-B100, etc

Temperature measuring instrument (Thermocouple K Input type)

Handheld Thermometer

DP-700

DP-350



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 installed.
Do not touch the sensor with high-voltage connections or high-current line such as power supply terminals, or do not stick the sensor to avoid electric shock or failure.

Caution for the export trade

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

RKC RKC INSTRUMENT INC.
(RIKA KOGYO CO.,LTD)

1.888.610.7664

www.calcert.com

sales@calcert.com