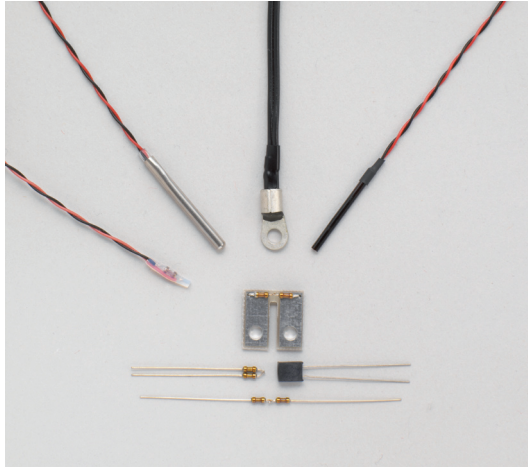


## THERMAL SENSORS THIN FILM PLATINUM SENSORS CUSTOMIZED ST



### FEATURES

- All ST-series thermal sensors are custom-made products. ST-series thermal sensors are designed in various shapes in accordance with your application using a platinum thin-film thermal sensor (SDT101 • SDT310series) as an element. Shapes of sensor parts can be designed flexibly to meet your shapes and dimensional needs, from simple resin mold parts to sensor sealed in metal protective tubes made of SUS316.

### APPLICATIONS

- Industrial Equipment: Environment testing machines, Constant-temperature ovens, pH meters, temperature controllers, mass flow meters, etc.
- Service Applications: Vending machines, fryers, steam convection ovens, etc.
- Automotive: Intake air temperature detection, water temperature detection, oil temperature detection, etc.

Products with Pb-free symbol "F" meet EU-RoHS requirements

### TYPE DESIGNATION (HOW TO ORDER)

#### ST3000 series

ST	31050201	F	A	X	1K	B	D
PRODUCT CODE	PRODUCT NO.	PB FREE SYMBOL	ELEMENT TYPE A: SDT101	REFERENCE TEMPERATURE X: 0°C	NOMINAL RESISTANCE 100: 100Ω 500: 500Ω 1K: 1kΩ	RESISTANCE TOLERANCE B: (±0.1%), C: (±0.2%) D: (±0.5%), F: (±1%)	T.C.R. TOLERANCE D: (±0.5%) F: (±1%) G: (±2%)

ST3000 series products with a reference temperature of 25°C (T.C.R. will be calculated between 0°C/100°C) are also available. Contact us.

#### ST8100 series

ST	8102201	F	B	X	1K	B
PRODUCT CODE	PRODUCT NO.	PB FREE SYMBOL	ELEMENT TYPE B: SDT310LTC C: SDT310P	REFERENCE TEMPERATURE X: 0°C	NOMINAL RESISTANCE 100: 100Ω 500: 500Ω 1K: 1kΩ	CLASS B: (±0.3+0.005  t  ) C: (±1.0+0.001  t  )

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS

### SPECIFICATIONS

① Elements used for Thermal Sensors ST3000 and ST 8100 Series, and Manufacturing Ranges.

Series	Element	Resistance Value	Class: Tolerance to Measuring Temp.	Resistance Tolerance	T.C.R.	T.C.R. Tolerance
ST3000 series	SDT101A SDT101B	100Ω 500Ω 1kΩ	—	B: ±0.1% C: ±0.2% D: ±0.5% F: ±1 %	3500	D: ±0.5% F: ±1 % G: ±2 %
ST8100 series	SDT310LTC SDT310P	100Ω 500Ω 1kΩ	B: ±(0.3+0.005  t  ) °C C: ±(1.0+0.01  t  ) °C	—	3850	—

ST3000 Series, 1kΩ, resistance tolerance B·C are produced in pair of SDT101Series.

The combination of ST3000 series, resistance tolerance B-T.C.R. and tolerance D is equivalent to class B of SDT310 tolerance to the measuring temperature.

② Shapes and particulars of ST3000 and ST8100 series.

ST3000 and ST8100 series are partially presented on the next page. Refer to our nearest sales office for the specifications on the separate catalogs.

③ Example of Processing Protective Tubes

Material
PPS
Epoxy Resin Coating
Fluorine Resin Shrinkage Tube
Polyimide
SUS304
SUS316
Cu
Processing of Fitting Terminals

④ Example of Processing External Conductors

Material
Polyurethane Coated Wire
Parallel Heat-Resistant Vinyl Chloride Wire
Fluorine Resin Coated Wire
Form
2-Wire System
3-Wire • 4-Wire System
Shielded Wire

⑤ Example of Processing of Terminals

Processing of Connecting Terminals
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⑥ Others

Mounting on Printed Circuit Board
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Contact our sales representatives before you use our products for applications including automobiles, medical equipment and aerospace equipment. Malfunction or failure of the products in such applications may cause loss of human life or serious damage.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order or use.