

Temperature Sensors for Packaging Machines

E52

Accurately Measure Seal Temperature.
Temperature Sensors for Packaging
Machines.

- Heat resistance (up to 375°C) and direct installation to heat bars.
- Protective tubing diameter of 1 mm for high-speed response.
- Usage together with the automatic filter adjustment function of E5□D Digital Temperature Controllers is recommended.



Ordering information

| Sensor type | Sensing tube | | Temperature sensor range | Cable length | Order code |
|----------------|--------------|--------|--------------------------|--------------|--------------------|
| | Diameter | Length | | | |
| Thermocouple J | 1mm | 120mm | −80...600°C | 2000 mm | E52-ETJ1-120-2-P-A |
| | | 100mm | 0...760°C | | E52-ETJ1-100-2-P-B |

Specifications

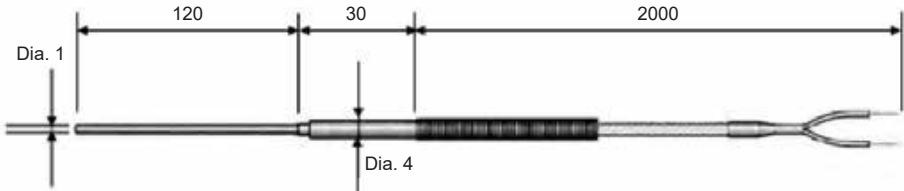
| | E52-ETJ1-120-2-P-A | E52-ETJ1-100-2-P-B |
|-----------------------------|---------------------------------|----------------------------------|
| Calibration/accuracy | EN 60584 class 2 | |
| Operating temperature range | −80...600°C - Sensors head | 0...760°C - Sensors head |
| | −80...350°C - Transition sleeve | −20...375°C. - Transition sleeve |
| | 0...400°C - Cable | −50...260°C - Cable |
| Measuring point | Isolated (ungrounded) | |
| Minimum bending radius | 3 times the diameter | 2 times the diameter |
| Sheath material | AISI 316 | |
| Cable material | Fiberglass | Kapton ^{*1} |

^{*1}: This material has no Volatile Compounds, water nor organic, when exposed to 105°C; this material is classified as 0% VOC.

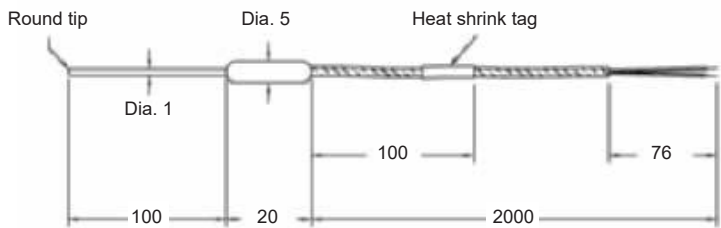
Dimensions

(Unit: mm)

E52-ETJ1-120-2-P-A



E52-ETJ1-100-2-P-B

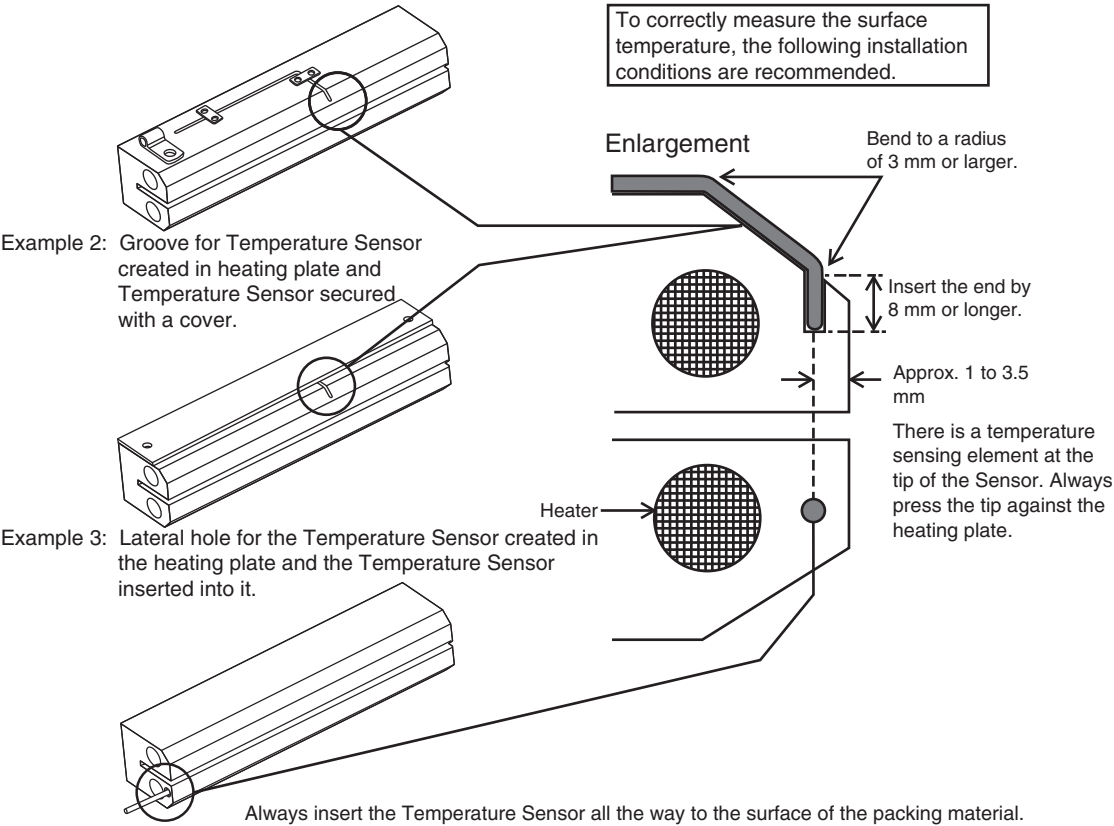


Installation Method

A Temperature Sensor for Packing Machines has a diameter of 1.0 mm.
To measure the temperature close to the seal surface, mount the Sensor as close as possible to the surface.

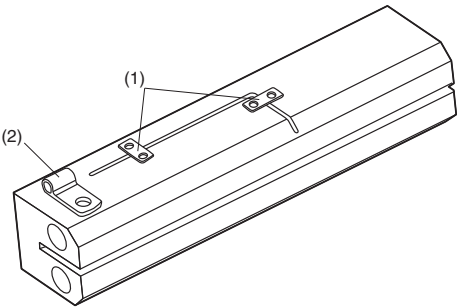
The following installation methods are assumed.

Example 1: Groove for Temperature Sensor created in heating plate and Temperature Sensor secured with mounting brackets.



Use the following brackets or the equivalent to mount a Temperature Sensor for Packaging Machines to a hot plate.

| Mounting bracket | Application | Manufacturer | Model number |
|------------------|-----------------------------------|--------------------|---------------------------|
| (1) | 1-mm-dia. protective tube bracket | Misumi Corporation | Square Shims ASFCS-series |
| (2) | Sleeve bracket (S1) | Misumi Corporation | Cable Clips COPU3-20P |
| | | Digi-Key | Cable Clamp RPC1156-ND |
| | Sleeve bracket (S2) | Misumi Corporation | Cable Clips COPU4-20P |
| | | Digi-Key | Cable Clamp RPC1474-ND |



Note: All of the above mounting brackets are SUS304.

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