# EPIC® SENSORS T-106 / W-106
**Temperature sensor for food industry**

## Features

- temperature range −200...+300 °C
- sharp tip
- handle
- Pt100 resistance thermometer as sensing element
- Pt100 accuracy class A as standard delivery
- AISI 316L as standard delivery material, other materials on request
- tailored solutions according to customer specific needs
- 3D step models available on request.

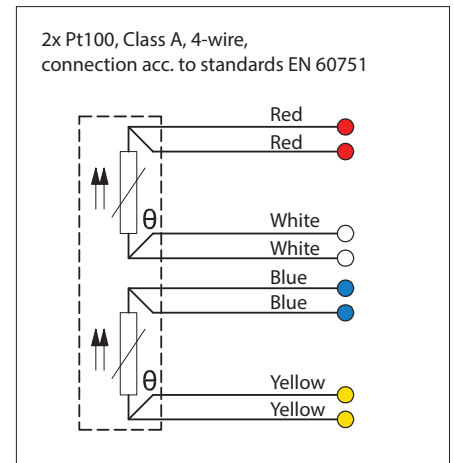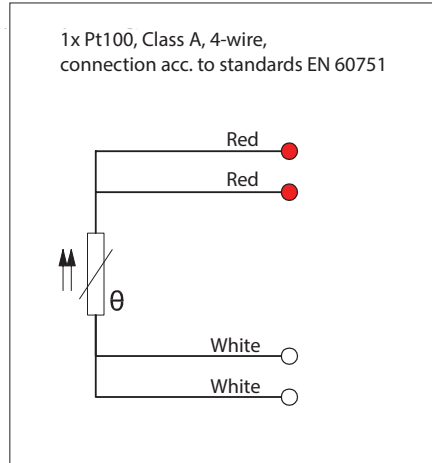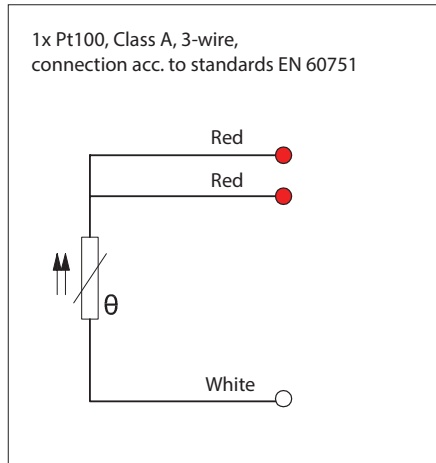## Typical applications

- food industry
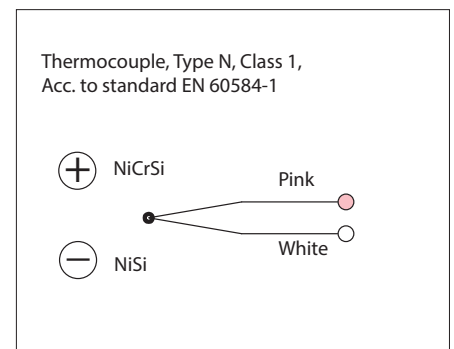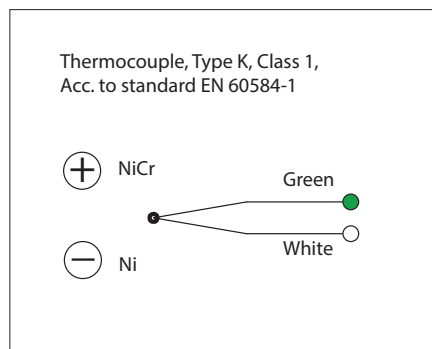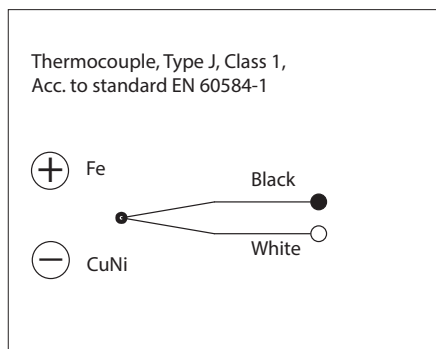- chemical industry.



## Technical data

| | |
|---|---|
| **Materials** | AISI 316L, maximum temperature +250 °C, temporarily +300 °C, other materials on request (Note: plastic covered handle max. temperature +110 °C) |
| **Tip diameter** | 3, 4 or 6 mm, other diameters and tip shapes on request |
| **Handle material** | Plastics as standard delivery material, maximum temperature + 110 °C<br>Available also in acid proof stainless steel |
| **Cable material** | SIL = silicone, max. +180 °C<br>FEP = fluoropolymer, max. +205 °C<br>GGD = glass silk cable/metal braid jacket, max. +350 °C<br>FDF = FEP wire insulation/braid shield/FEP jacket, max. +205 °C<br>SDS = silicone wire insulation/braid shield/silicone jacket, only available as 2 wire cable, max. +180 °C<br>TDT = fluoropolymer wire insulation/braid shield/fluoropolymer jacket, max. +205 °C<br>FDS = FEP wire insulation/braid shield/silicone jacket, max. +180 °C<br>FS = FEP wire insulation/silicone jacket, max. +180 °C |
| **Tolerances Pt100 (IEC 60751)** | A tolerance ±0.15 + 0.002 x t, operating temperature −100...+450 °C<br>B tolerance ±0.3 + 0.005 x t, operating temperature −196...+600 °C<br>B 1/3 DIN, tolerance ±1/3 x (0.3 + 0.005 x t), operating temperature −196...+600 °C<br>B 1/10 DIN, tolerance ±1/10 x (0.3 + 0.005 x t), operating temperature −196...+600 °C |
| **Tolerances thermocouple (IEC 60584)** | Type J tolerance class 1 = −40...375 °C ±1.5 °C, 375...750 °C ±0.004 x t<br>Type K and N tolerance class 1 = −40...375 °C ±1.5 °C, 375...1000 °C ±0.004 x t |
| **Temperature range Pt100** | −200...+300 °C, depending on material |
| **Temperature range thermocouple** | −200...+300 °C, depending on thermocouple type and material |
| **Approvals** | METROLOGICAL PATTERN APPROVAL |
| **Quality certificate** | ISO 9001:2015 and ISO 14001:2015 issued by DNV |

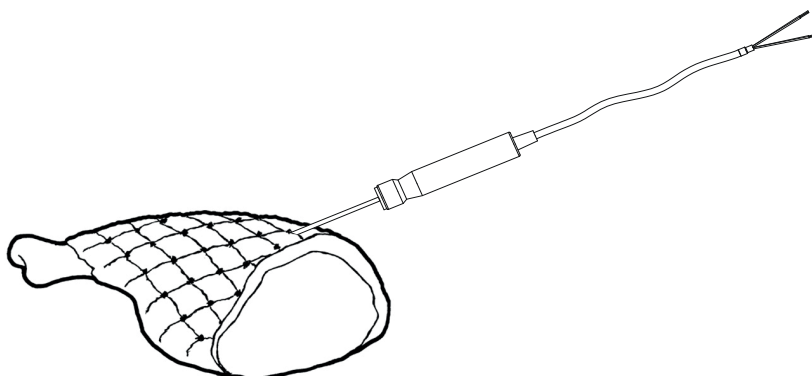# EPIC® SENSORS T-106 / W-106
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## Pt100 connections

1x Pt100, Class A, 3-wire,
connection acc. to standards EN 60751

Red
Red

θ

White

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1x Pt100, Class A, 4-wire,
connection acc. to standards EN 60751

Red
Red

θ

White
White

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2x Pt100, Class A, 4-wire,
connection acc. to standards EN 60751

Red
Red

θ

White
White
Blue
Blue

θ

Yellow
Yellow

## Thermoelement connections

Thermocouple, Type J, Class 1,
Acc. to standard EN 60584-1

+ Fe

Black

White

− CuNi

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Thermocouple, Type K, Class 1,
Acc. to standard EN 60584-1

+ NiCr

Green

White

− Ni

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Thermocouple, Type N, Class 1,
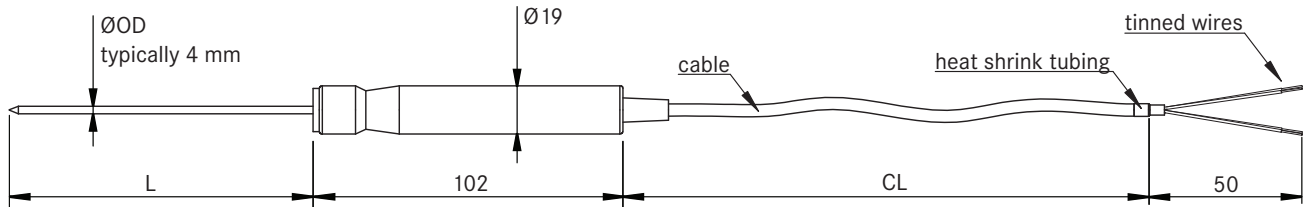Acc. to standard EN 60584-1

+ NiCrSi

Pink

White

− NiSi

## Installation examples

# EPIC® SENSORS T-106 / W-106
## Temperature sensor for food industry

**Drawing**



**Product code key**

Example code:   W — 106 — 4 / 100 — 5000 / SIL — 4 — A — X

| | |
|---|---|
| W | = Pt100 resistance thermometer |
| 2xW | = 2 x Pt100 resistance thermometer |
| T | = thermocouple |
| 2xT | = 2 x thermocouple |
| 106 | = sensor for food industry (constant in code) |
| 3, 4, 6 | = outer diameter of sensor element (ØOD) [mm] |
| 100 | = sensor element length, L [mm] |
| 5000 | = cable length, CL [mm] |
| SIL, FEP, GGD, FDF, TDT, SDS, FDS, FS | = cable material (for more information, look technical data on first page of the datasheet) |
| 4,3,2 | = Pt100 wire count |
| K,N,J | = thermocouple type |
| A,B | = Pt100 accuracy class, (class A as standard delivery) |
| 1,2,3 | = thermocouple accuracy class, (class 1 as standard delivery) |
| X | = additional details on the text line |