When the precise measurement of temperature is a critical aspect to the safety of a process, the utilization of high-precision and best quality thermocouple material is a major factor. Thermo Sensor offers an extensive range of high quality temperature sensors to meet these demands.

Apart from the quality of the materials used, the results will be the guarantee as evidenced by the calibration tests in the company owned inhouse calibration laboratory. At Thermo Sensor, the calibration laboratory is operated according to DIN EN ISO/IEC 17025. In addition, it is accredited by the national accreditation body for the Federal Republic of Germany (DAkkS). Companies, who are in need of temperature sensors for SAT- or TUS-measurements according to the requirements of AMS 2750E or CQI-9, receive from Thermo Sensor not only the sensors but also the correspondent certificates of the traceable calibration with the appropriate certificates of conformity.
Straight Thermocouple
with Metallic Protection Tube

Available Options

<table>
<thead>
<tr>
<th>THERMOCOUPLE according to EN 60584</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermocouple</td>
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<tr>
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</tr>
<tr>
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<td>Type B</td>
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</table>

Number of Thermocouples
Single, twofold, threefold

Wire Strength
0.35 mm, 0.5 mm, 1.5 mm, 3.0 mm

Connection Head
Form A, Form B

Protection Tube
Steel, M.-No. 1.0305, 1.4571, heat resistant Steel, M.-No. 1.4749, 1.4762, 1.4841, 2.4816

Dimensions of Protection Tube
15 × 2 mm, 22 × 2 mm, special dimensions on request

Nominal Length L1
Selectable

Inner Protection Tube
Ceramic C610 or C799

Optional
Gas tight threaded sleeve, flange assembly
Straight Thermocouple
with Metallic Protection Tube and Mineral Insulated Measuring Insert

Available Options

THERMOCOUPLE according to EN 60584

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<tr>
<td>Type J</td>
<td>Fe</td>
<td>CuNi</td>
</tr>
</tbody>
</table>

Number of Thermocouples
Single, twofold, threefold

Measuring Insert
3.0 mm, 6.0 mm, 8.0 mm

Connection Head
Form A, Form B

Protection Tube
Steel, M.-No. 1.0305, 1.4571, heat resistant Steel, M.-No. 1.4749, 1.4762, 1.4841, 2.4816

Dimensions of Protection Tube
15 × 2 mm,
22 × 2 mm,
special dimensions on request

Nominal Length L1
Selectable

Inner Protection Tube
Ceramic C610 or C799

Optional
Gas tight threaded sleeve, flange assembly
Straight Thermocouple
with Ceramic Protection Tube

Available Options

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<td>Pt</td>
</tr>
<tr>
<td>Type R</td>
<td>Pt13Rh</td>
<td>Pt</td>
</tr>
<tr>
<td>Type B</td>
<td>Pt30Rh</td>
<td>Pt6Rh</td>
</tr>
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Number of Thermocouples
Single, twofold, threefold

Wire Strength
0.35 mm, 0.5 mm, 1.5 mm, 3.0 mm

Connection Head
Form A, Form B

Protection Tube
Ceramic C530, C610 or C799

Dimensions of Protection Tube
10 \times 1.5 \text{ mm},
10 \times 2.0 \text{ mm},
15 \times 2.0 \text{ mm},
15 \times 2.5 \text{ mm},
24 \times 2.0 \text{ mm},
24 \times 3.0 \text{ mm},
special dimensions on request

Nominal Length L1
Selectable

Supporting Tube Length L2
Selective

Inner Protection Tube
Ceramic C610 or C799

Optional
Gas tight threaded sleeve, flange assembly, vacuum-tight flange, vacuum-sealed measuring insert
Mineral Insulated Thermocouple
Screw-In Thermocouple

Available Options

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</table>

Number of Thermocouples
- Single, twofold, threefold

Measuring Insert
- 3.0 mm, 6.0 mm, 8.0 mm

Connection Head
- Form A, Form B

Protection Tube
- Steel, M.-No. 1.0305, 1.4571,
  heat resistant Steel, M.-No.
  1.4749, 1.4762, 1.4841, 2.4816

Dimensions of Protection Tube
- (Without)
  - 9 × 1 mm,
  - 11 × 1 mm,
  - 11 × 2 mm,
  - 15 × 2 mm,
  - 22 × 2 mm,
  - special dimensions on request

Nominal Length L1
- Selectable

Supporting Tube Length L2
- Selectable

Process Connection
- M18 × 1.5,
- M24 × 1.5,
- G1/2” A,
- G3/4” A,
- G1” A,
- special dimensions on request
Available Options

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<td>Pt10Rh</td>
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Number of Thermocouples

- Single, duplex

Sheath Material

- 2.4816,
- 1.4841,
- Platinum,
- Nicrobel,
- Nimonic 75,
- Pyrosil

Probe Diameter

- 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm, 4.5 mm

Probe Length

- Selectable

Execution

- Without lead wire,
- with connector,
- with lead wire and bare ends,
- with lead wire and connector

Lead Wire

- PVC, Teflon (e.g. FEP), glass fiber, silicone

Process Connection

- Thermocouple Connector type miniature or standard, High-Temperature Thermocouple Connector type miniature or standard, Lemo connector size 0, 1, 2
Angled Thermocouple

Available Options

THERMOCOUPLE according to EN 60584

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Number of Thermocouples

Single, twofold

Wire Strength

0.35 mm, 0.5 mm, 1.5 mm, 3.0 mm, on special demand with mineral insulated thermocouple insert

Connection Head

Form A, Form B

Execution

Screwed, bent, welded

Protection Tube

Steel enameled – 22 × 2 mm,
Pure Iron – 22 × 5 mm,
SL25 – 30 × 9 mm, swaged to 24 mm,
Graphite – 40 × 11 mm,
Titan – 18 × 1.5 mm,
Cast Iron 30 × 6 mm,
1.0305 – 15 / 22 × 2 mm,
1.4571 – 15 / 22 × 2 mm,
1.4762 – 15 / 22 × 2 mm,
1.4841 – 15 / 22 × 2 mm,

Protection Tube Length

500 mm, 710 mm, 1000 mm, special dimensions on request

Supporting Tube

Without,
Steel M.-No. 1.0305, 1.4571,
heat resistant Steel, M.-No. 1.4762, 1.4841

Supporting Tube Length

Selectable

Inner Protection Tube

Ceramic C610 or C799
A modern and future-oriented Temperature Measuring Technology Company: THERMO SENSOR

Thermo Sensor is well-known in various industries for the development of high quality- and cutting-edge products in the field of temperature, measuring, and control engineering. Since 1994, it is our main target to satisfy and outreach customer requirements. Hence, we have specialized in the development of individual solutions, always tailored to the particular measuring task.

At the manufacturing site in Germany, Thermo Sensor produces temperature sensors which come into operation worldwide on all continents. The production range includes not only thermocouples and resistance thermometers but also a wide range of accessories, e.g. connectors and turned parts like compression fittings or ferrules, which are produced in the in-house machinery pool. Available are standard and special designs, as well as sensors especially built for use in potentially explosive atmospheres (ATEX or IECEx).

Since 1996, Thermo Sensor is certified according to the respectively valid quality management system (currently complying with ISO 9001: 2015). The combination of the most modern production methods and the skills of our staff is the root of our success and guarantees a product quality which meets even the most sophisticated requirements.