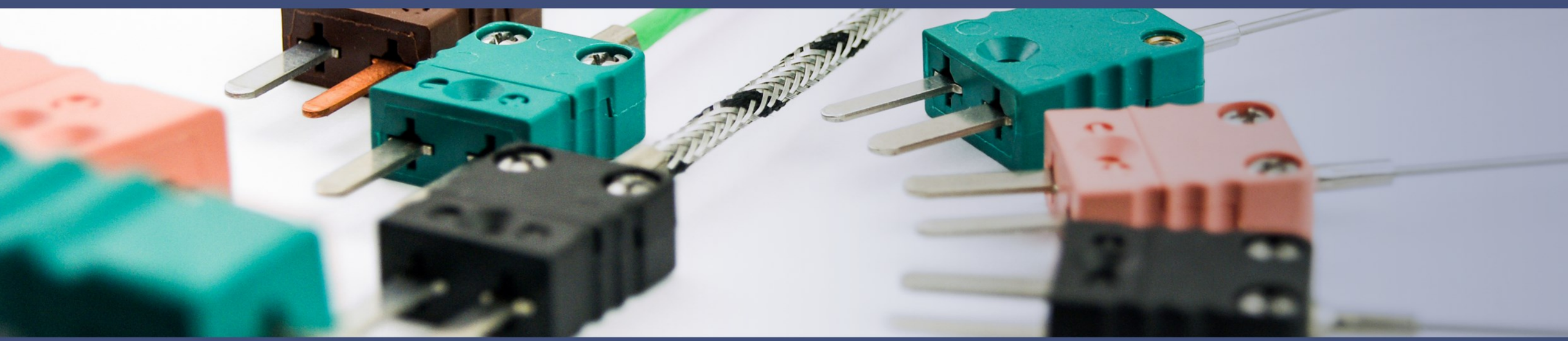
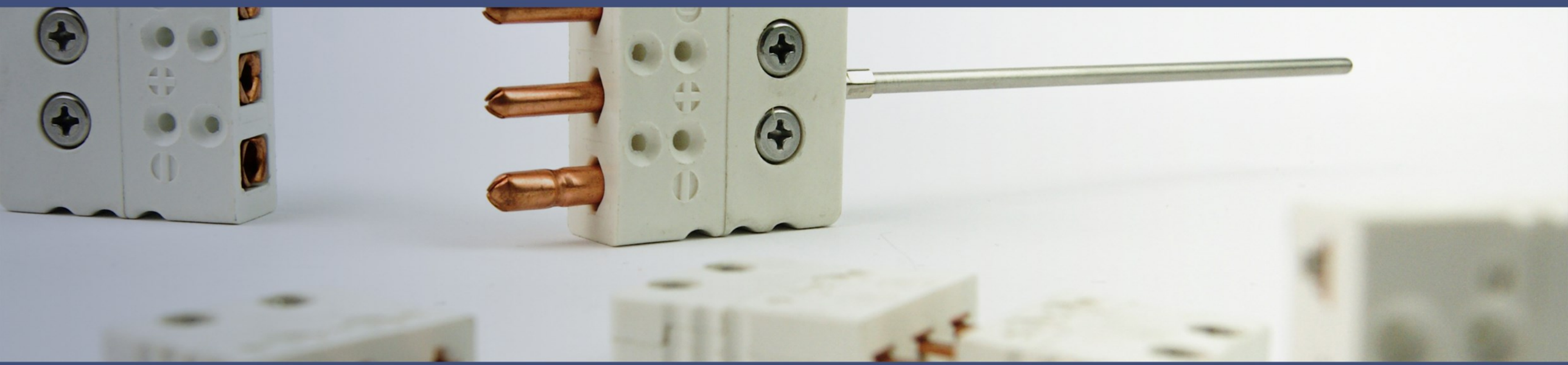
EuroSensors

Mineral insulated temperature sensors





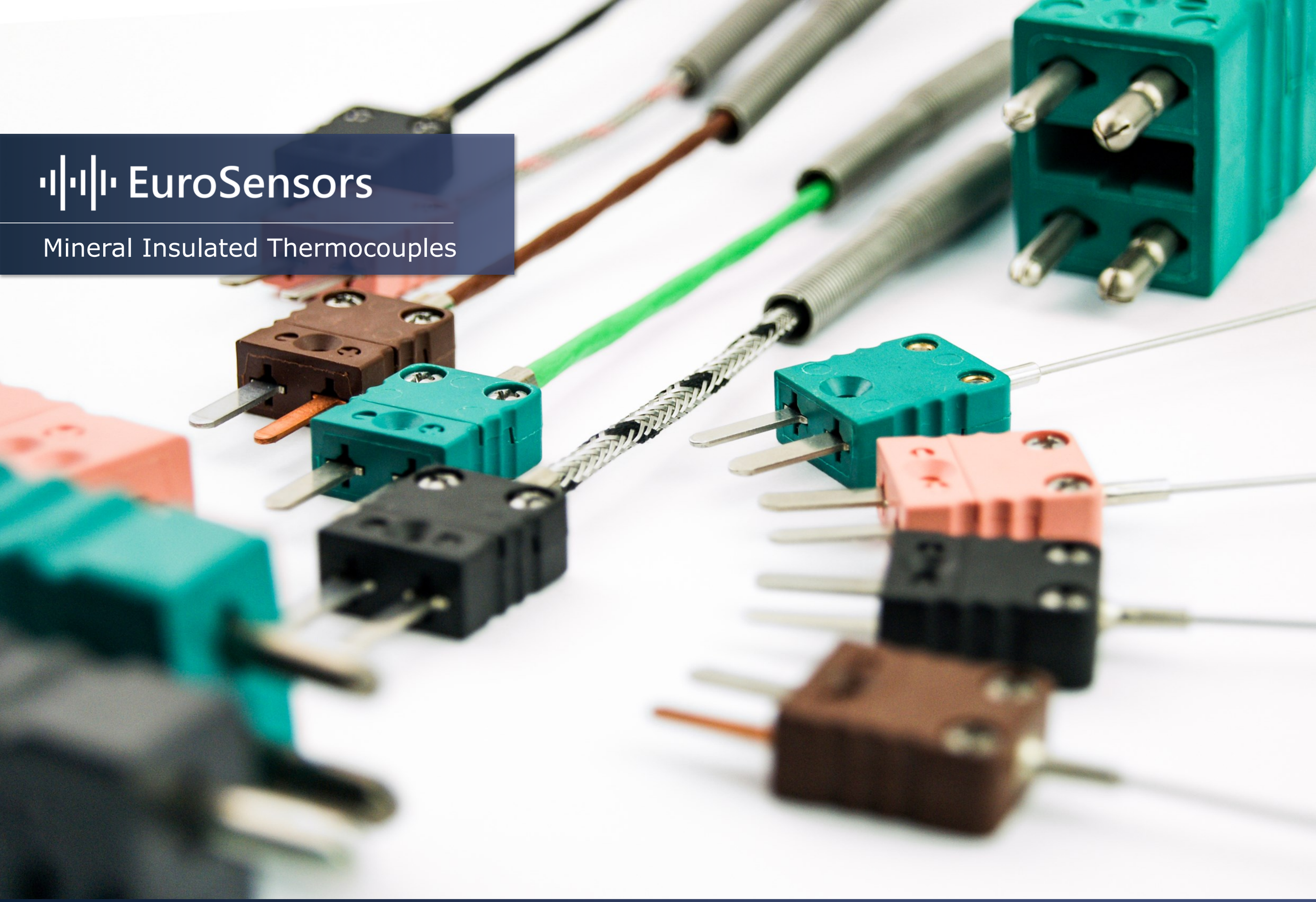
Contents

Mineral insulated thermocouples

Mineral insulated RTDs

EuroSensors

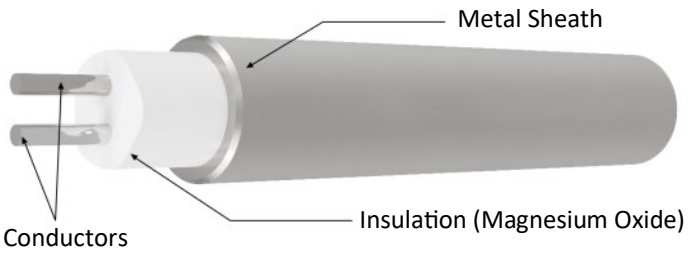
Mineral Insulated Thermocouples



Mineral insulated thermocouples - Technical information

What is a mineral insulated probe ?

Mineral insulated probes are made from mineral insulated cable. It has a metallic sheath and on the inside, the conductors are insulated with densely packed magnesium oxide (MgO).



This construction bears a lot of advantages for temperature sensors. Mineral insulated probes are often referred to as sheathed temperature sensors.

Characteristics of sheathed thermocouples

A sheathed thermocouple has an extremely wide temperature range: from below -200 °C up to more than 1600°C. Furthermore, sheathed thermocouples are resistant to vibration and scratches which proves their longevity.

At the same time, they are bendable.
Surprisingly, they are affordable as well: MI cable costs about the same as fiberglass cable.

We manufacture MI probes in diameters from 1mm up to 8mm. To ensure maximum water tightness, we make either a connector or a robust cable transition onto the probe.

Junction types

Exposed junction

This junction style provides the fastest possible response time but leaves the thermocouple wires unprotected against corrosive or mechanical damage.

Grounded junction

The grounded junction is recommended in the presence of liquids, moisture, gas or high pressure. The wire is protected from corrosive or erosive conditions. Response time with this style approaches that of the exposed junction.

Ungrounded junction

The ungrounded junction is excellent for applications where stray electric and magnetic fields (EMFs) would affect the reading and for frequent or rapid temperature cycling. Response time is longer than with the grounded junction.

Response time Diameter/Junction type

Sheath diameter (mm)	Isolated measuring junction	Grounded measuring junction
0.25	5 ms	2 ms
0.5	14 ms	8 ms
1.0	0.18 s	0.14 s
1.5	0.2 s	0.15 s
3.0	0.5 s	0.4 s
4.5	1.2 s	0.7 s
6.0	2.4 s	1.2 s
8.0	3.9 s	2.1 s

Mineral insulated thermocouples - Technical information

Sheath material types

When it comes to the production of mineral-insulated (MI) thermocouples, several materials are commonly used for the sheath and thermocouple wires. Let's explore four specific materials: *(see annex)*

- **AISI (American Iron and Steel Institute) Stainless Steel**
- **Inconel**
- **Nicrobell / Pyrosil**
- **Platinum-Rhodium (Pt-Rh) Alloy**

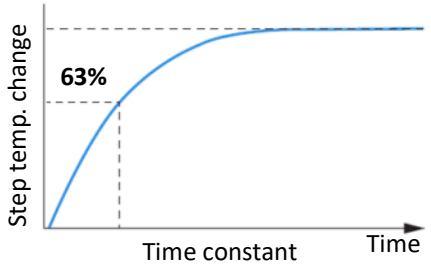
By utilizing these materials in the production of MI thermocouples, manufacturers can tailor the thermocouples to meet specific application requirements, considering factors such as temperature range, chemical exposure, mechanical stress, and accuracy needs.

This allows for reliable and accurate temperature measurements in diverse industrial processes, ensuring optimal control and monitoring.

Response time

Response is a function of the mass of the sensor and its efficiency in transferring heat from its outer surfaces to the wire sensing element. A rapid time response is essential for accuracy in a system with sharp temperature changes.
Time response varies with the probe's physical size and design. Response times indicated represent standard industrial probes.

Time constant (thermal response time)



The smaller the diameter, the faster the thermocouple responds. Grounding the junction also improves response time by approximately 50 percent based on the sensor achieving 63.2 percent of the final reading or to the first time constant. It takes approximately five time constants to obtain steady state readings.

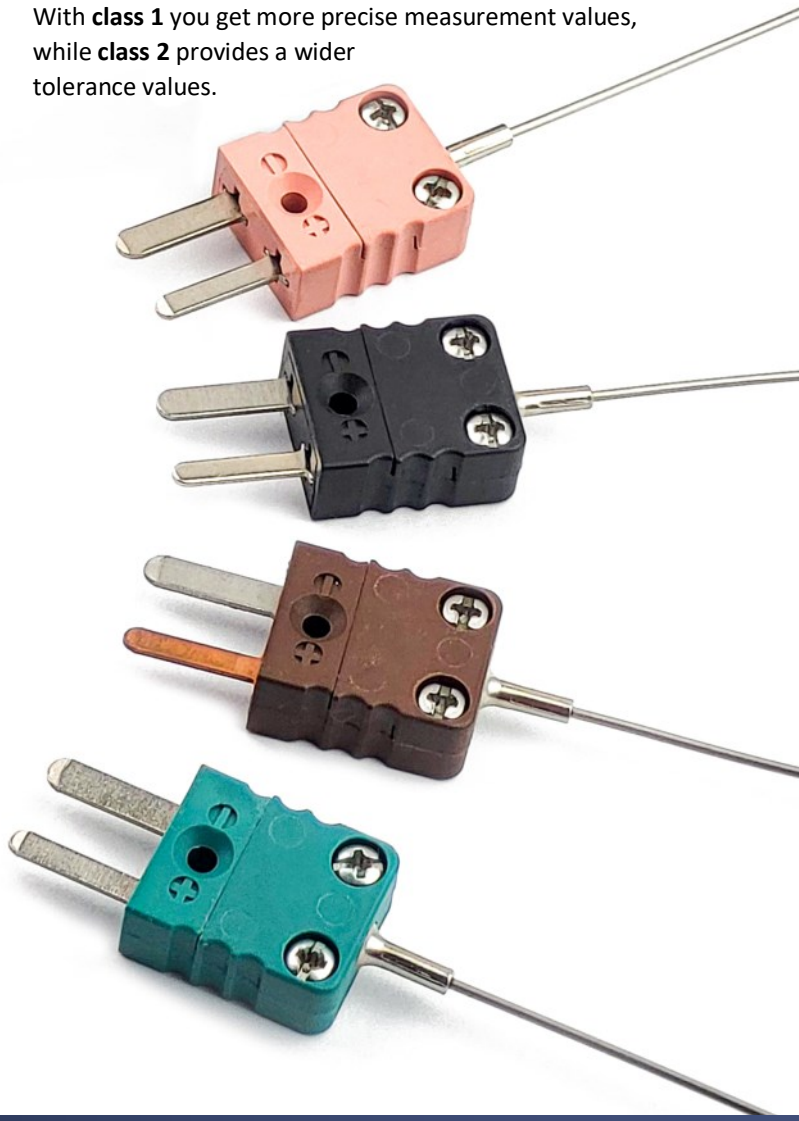
Types of thermocouples

Thermocouples are adapted to specific applications depending on the temperature range to be measured, the accuracy required and the environment in which they will be used. They are differentiated by letters (Type K, J, N, T, etc.…) which correspond to the presence of materials that can measure a certain temperature range.
The most commonly used is the type K which is capable of measuring temperatures from -40 to +1200 °C. It is made from a chrome and an aluminum wire.

Note that connector colors vary by standard and country. Check the ***"International Color Codes applied to temperature measuring engineering".***

Thermocouple classes

Classes of thermocouples have certain tolerance values and temperature limits of validity. The most common classes are **class 1** and **class 2**.
With **class 1** you get more precise measurement values, while **class 2** provides a wider tolerance values.



Mineral insulated thermocouples - Technical information

Thermocouple accessories

Temperature sensor accessories are equipment used to improve the performance of temperature measuring devices.
It is important to choose quality sensor accessories to ensure optimal performance and long-term reliability.
Our accessories are made of strong and resistant materials to guarantee maximum durability.
Eurosensors offers a wide selection of temperature sensor accessories to meet your specific needs.
Accessories include: thermocouple cables for reliable and accurate data transmission, compression fittings for easy installation, thermowells to protect sensors from mechanical damage, terminal heads for easy access to sensors, transmitters for networked data transmission, and ceramic terminal blocks for electrical isolation.

Terminal heads

Many alternative types of terminal head are available to meet the requirements of various applications. Variations exist in size, material, accommodation, resistance to media, resistance to fire or even explosion and in other parameters. Common types are shown below but there are many special variants available to meet particular requirements.

Terminal block located in a “head” allow for the connection of extension wires. Various materials are used for screw or solder terminations including copper, plated brass and, for the best performance in the case of thermocouples, thermoelement alloys. The various head styles cater for a wide variety of probe diameters and cable entries.

Types of thermocouple cables

For additional information about thermocouple cables and RTD cables see ***“Accessories - Cables”.***

Types of connectors

Thermocouple connectors plugs and sockets are available in two sizes (miniature and standard).
Miniature thermocouple connectors are smaller and have flat pins, these are usually found on small diameter thermocouples or fitted to the end of cables for connection to hand held and panel instruments. Standard connectors have larger round pins and tend to be used for more industrial applications.

How to choose your accessory ?

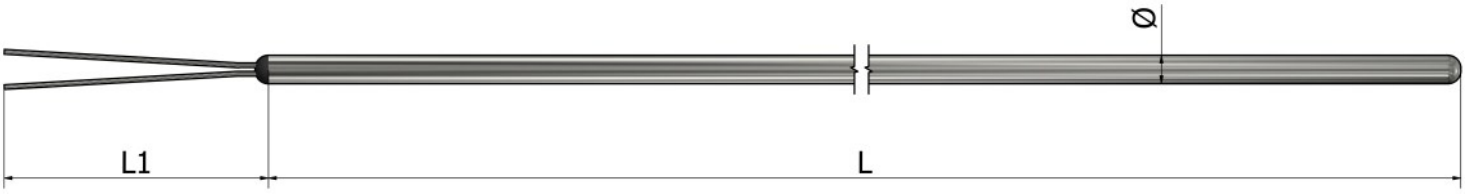
It is important to choose the right type of cable, fitting, thermowell, terminal head, connector and transmitter to ensure that your temperature sensor operates reliably and accurately.

The type of thermocouple cable must match the type of thermocouple you are using (e.g. type K, T, E, etc.).
The compression fittings must match the type of sensor you are using. It must also be compatible with the sensor diameter and location thread.
The thermowell protects the sensor from mechanical damage and high temperatures. It must be selected according to the operating temperature and the required mechanical strength.
The connection head must be compatible with the type of cable and the application. It must also be able to withstand the temperatures and environment in which it will be used.
The connector must be compatible with the type of cable and thermocouple used, as well as with the connection head. It must also be designed to withstand the temperatures and environment in which it will be used.
The thermocouple transmitter must be compatible with the type of sensor used and must be able to convert the signal to a standard electrical signal.
The ceramic terminal block is used to attach electrical cables to a control box. It must be compatible with the type of cable used and resistant to high temperatures.

Additional accessories

For more detailed information see ***“Accessories”.***

TM00 – Mineral insulated thermocouples
Stripped



Ordering information

1. Thermocouple:

☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:

☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:

☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:

☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:

☐ Ungrounded ☐ Grounded ☐ Exposed

7. Stripping length L1 (mm):

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

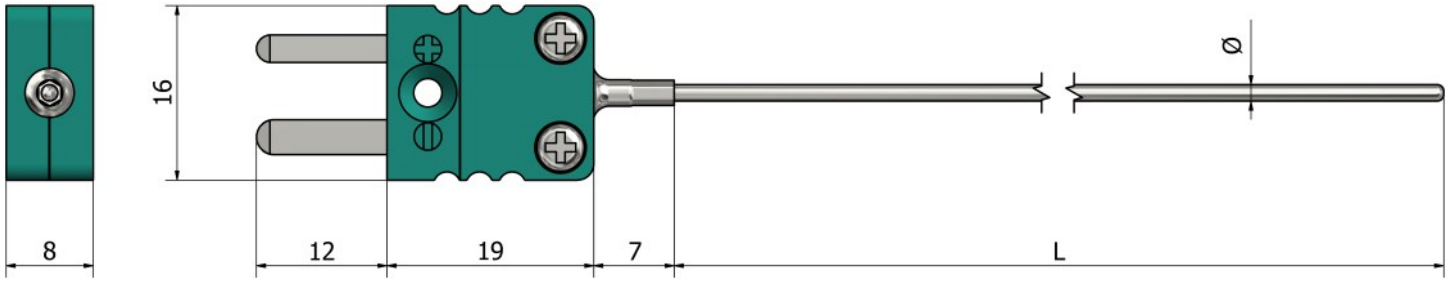
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM10 – Mineral insulated thermocouples
Miniature connector termination



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm
☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Miniature connector:
☐ Plug ☐ Socket

8. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

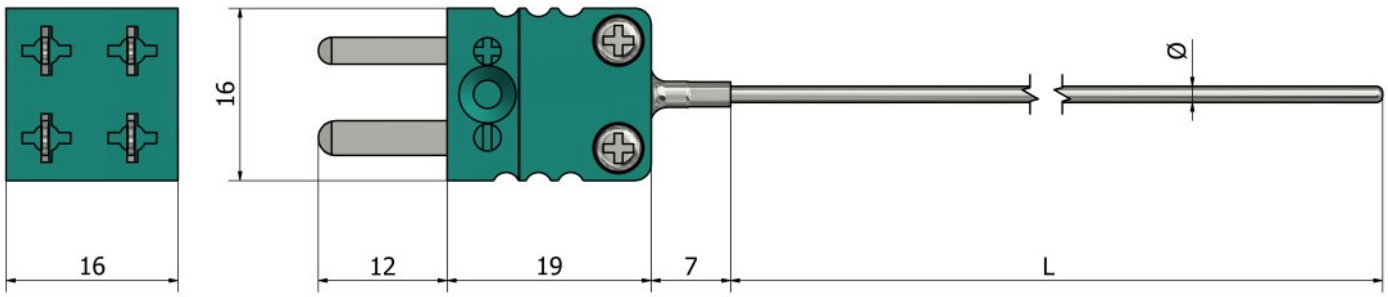
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM11 – Mineral insulated thermocouples
Miniature connector termination (duplex)



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm
☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Duplex miniature connector:
☐ Plug ☐ Socket

8. Connector temperature: ☐ 200°C

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

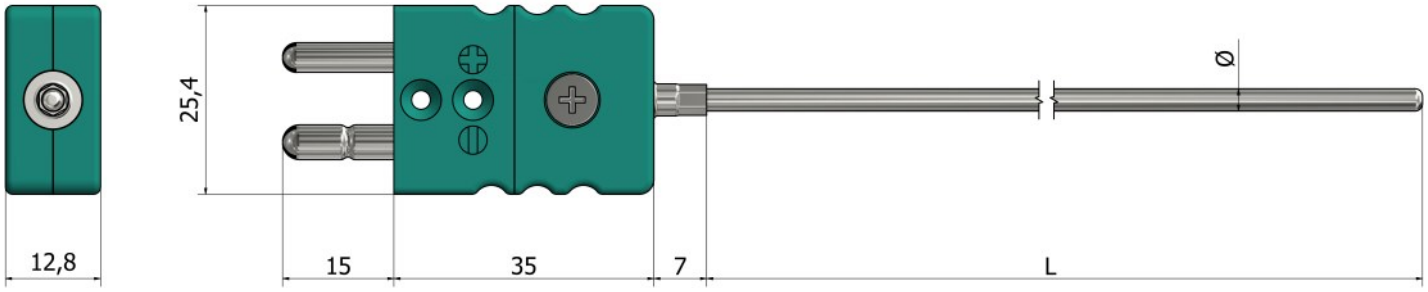
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM12 – Mineral insulated thermocouple
Standard connector termination



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Standard connector:
☐ Plug ☐ Socket

8. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

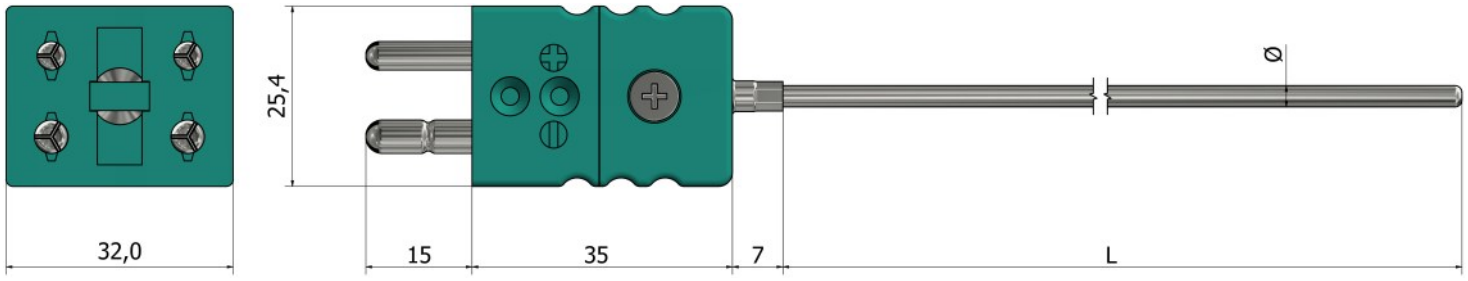
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM13 – Mineral insulated thermocouples
Standard connector termination (duplex)



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Duplex standard connector:
☐ Plug ☐ Socket

8. Connector temperature: ☐ 200°C

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM14 – Mineral insulated thermocouples
LEMO connector

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. LEMO connector type:
☐ Plug ☐ Socket

8. LEMO connector size: *(sheath from Ø mm to Ø mm)*
☐ S0 (1 mm) ☐ S1 (1,5 mm to 3 mm) ☐ S2 (4,5 mm to 6 mm)
☐ S3 (8mm) ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM20 – Mineral insulated thermocouples
Cable prolongation

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

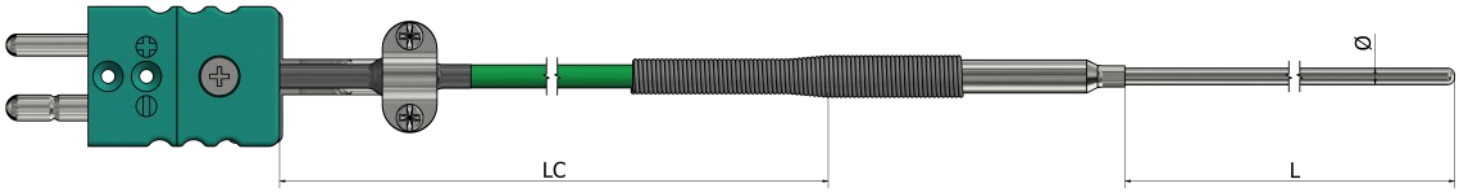
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM21 – Mineral insulated thermocouples
Cable prolongation with connector



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket

11. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

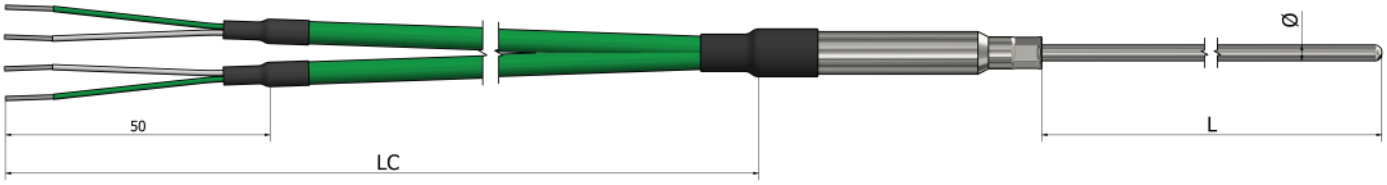
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM22 – Mineral insulated thermocouples
Cable prolongation (duplex)



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

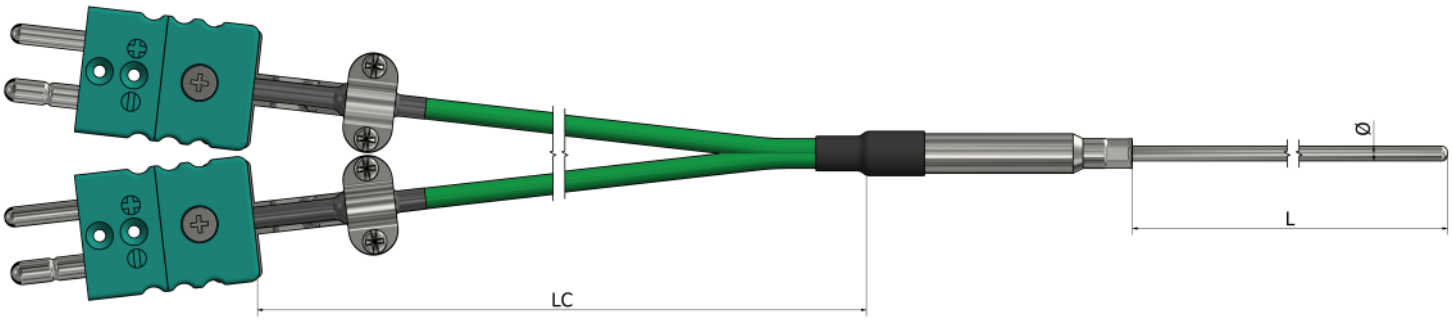
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM23 – Mineral insulated thermocouples
Cable prolongation with connector (duplex)



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket

11. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

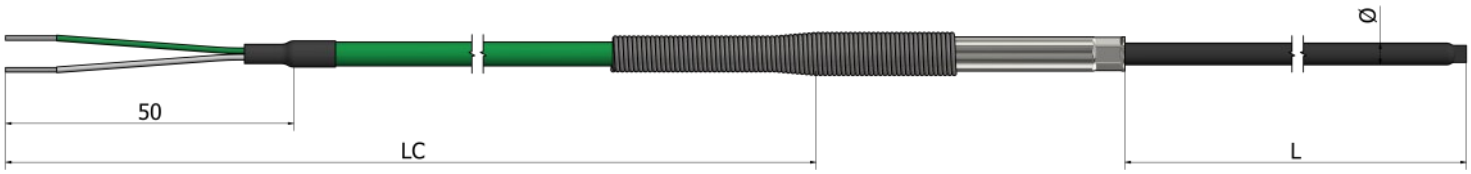
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM24 – Mineral insulated thermocouples
For aggressive environments (with PTFE protection up to 250°C)



Protection material **PTFE*

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø: *(diameter with PTFE protection Ø mm)*
☐ 1 mm (1,3mm) ☐ 1,5 mm (1,8mm) ☐ 2 mm (2,5mm)
☐ 3 mm (3,8mm) ☐ 4,5 mm (5,4mm) ☐ 6 mm (6,9mm)
☐ 8 mm (10mm) ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket ☐ Without

11. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

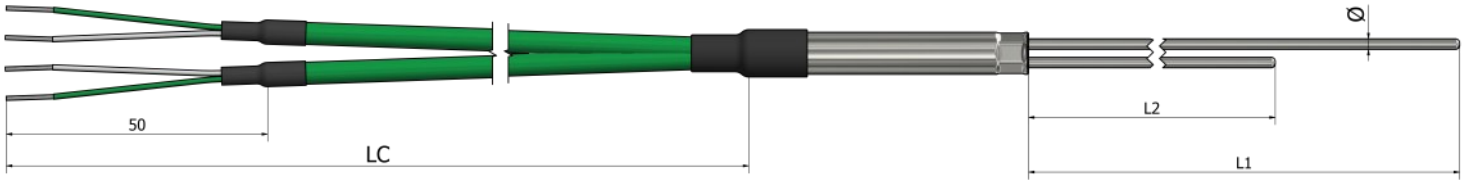
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM25 – Mineral insulated thermocouples
Multipoints with cable prolongation



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Number of sheaths and lengths L1, L2, L3 (mm):
☐ L1 _____ ☐ L2 _____ ☐ L3 _____

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket ☐ Without

11. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

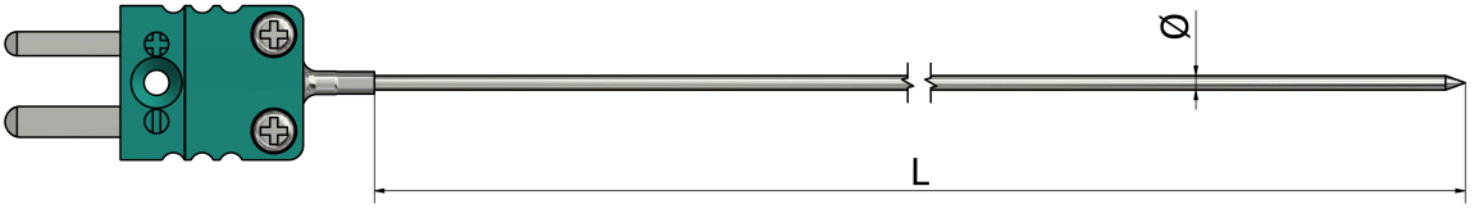
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM30 – Mineral insulated thermocouples
Penetration



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm
☐ Other:

5. Sheath material:
☐ SS316 ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded

7. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket ☐ Without

8. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM40 – Mineral insulated thermocouples
Cable prolongation with fixed threaded fitting

*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L or L1 (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Thread:
☐ 1/2'' BSPP ☐ 1/4'' BSPP ☐ 1/4'' BSPT ☐ M10
☐ 1/2'' NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

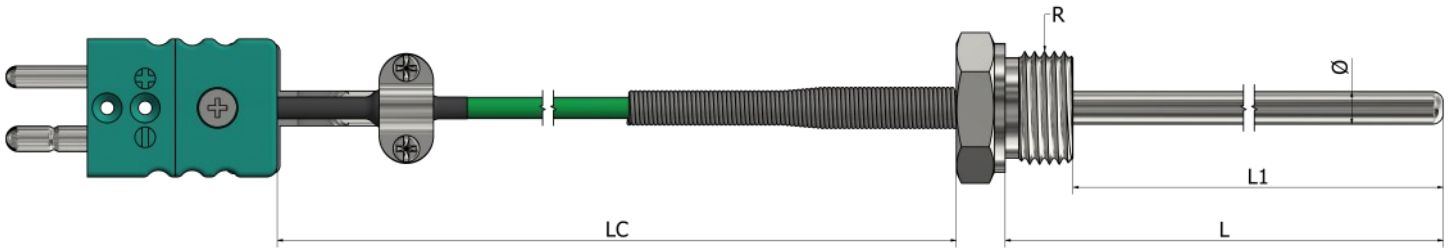
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM41 – Mineral insulated thermocouples
Cable prolongation with fixed threaded fitting and connector



*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L or L1 (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket

11. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

13. Thread:
☐ 1/2'' BSPP ☐ 1/4'' BSPP ☐ 1/4'' BSPT ☐ M10
☐ 1/2'' NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM42 – Mineral insulated thermocouples
Cables prolongation with fixed threaded fitting (duplex)

*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L or L1 (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Thread:
☐ 1/2'' BSPP ☐ 1/4'' BSPP ☐ 1/4'' BSPT ☐ M10
☐ 1/2'' NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

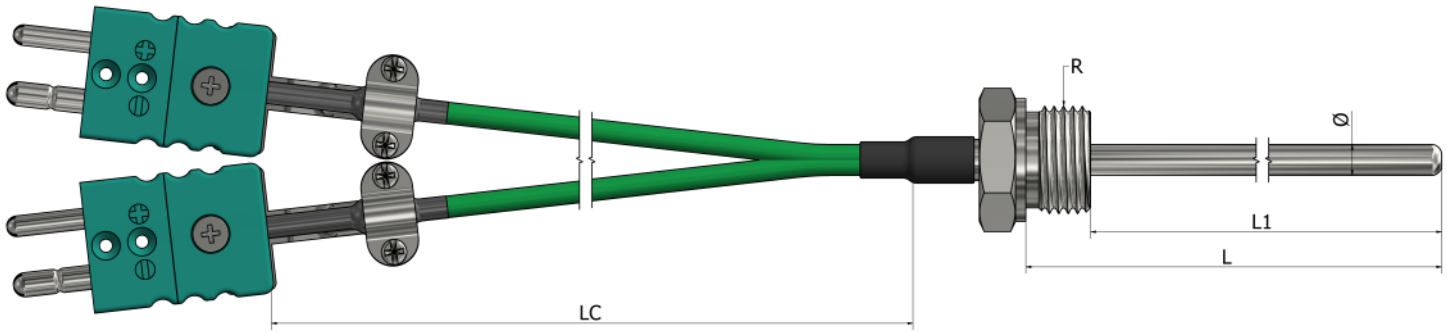
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM43 – Mineral insulated thermocouples
Cables prolongation with fixed threaded fitting and connectors (duplex)



*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L or L1 (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket

11. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

13. Thread:
☐ 1/2'' BSPP ☐ 1/4'' BSPP ☐ 1/4'' BSPT ☐ M10
☐ 1/2'' NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

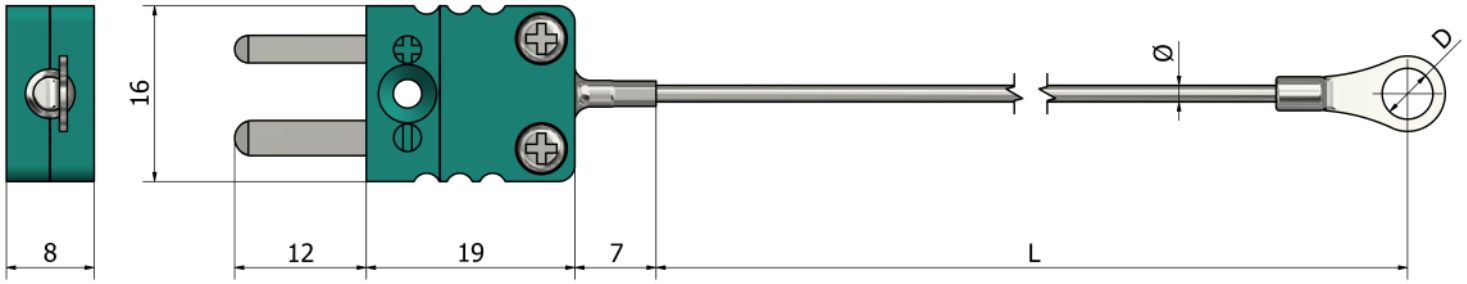
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM50 – Mineral insulated thermocouples
Washer mount



*Washer material **Tinned copper***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm
☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded

7. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket ☐ Without

8. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

9. Hole diameter D (mm):

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

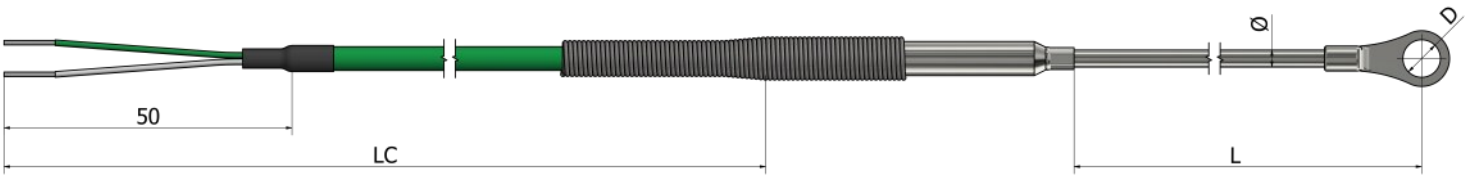
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM51 – Mineral insulated thermocouples
Cable prolongation with washer mount



*Washer material **Tinned copper***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm
☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Hole diameter D (mm):

11. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket ☐ Without

12. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

13. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

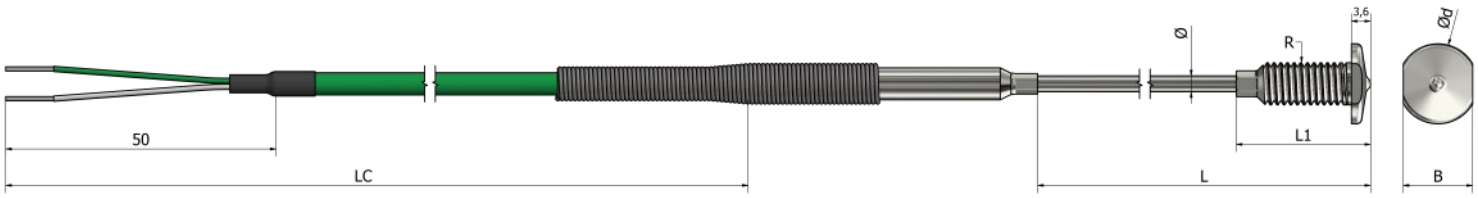
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM52 – Mineral insulated thermocouples
Built-in for tank containers



*Housing material **Stainless steel 316L***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm
☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket ☐ Without

11. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

13. Housing dimension (mm): *(material **Stainless steel 316L**)*
L1 _____ Ød _____ B _____

14. Thread:
☐ M8x1,25 ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

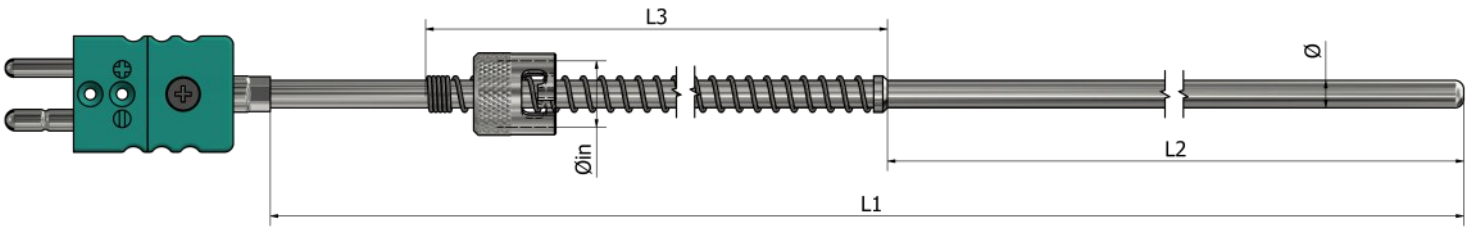
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM53 – Mineral insulated thermocouples
Bayonet



Bayonet cap* ***Nickel-plated brass*

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath lengths L1, L2, L3 (mm):
L1 _____ L2 _____ L3 _____

4. Sheath diameter Ø:
☐ 3 mm ☐ 4,5 mm ☐ 6 mm
☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Bayonet cap Øin: *(to suit sheath Ø mm)*
☐ 10,3 mm (3 mm) ☐ 12,4 mm (4,5 mm) ☐ 14,5 mm (6 mm)
☐ Other:

8. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket ☐ Without

9. Connector temperature: ☐ 200°C ☐ 350°C ☐ 650°C

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

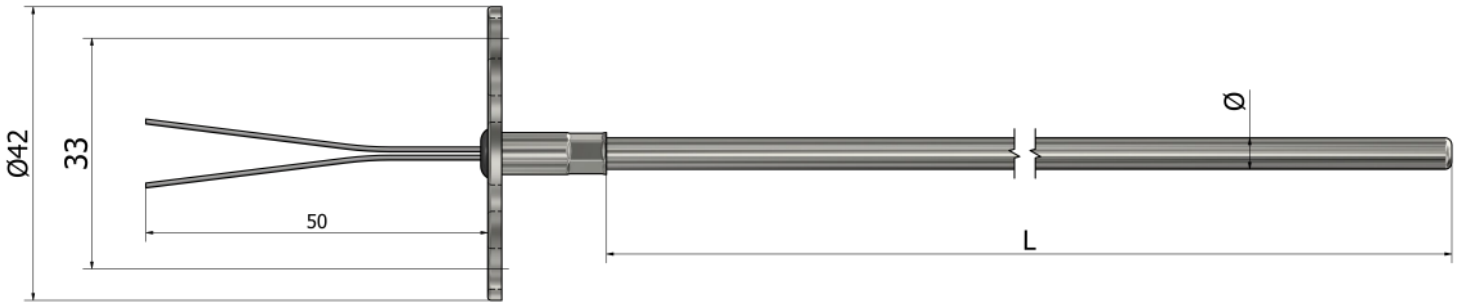
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM60 – Mineral insulated thermocouples
Disc plate insert



*Disc plate material **Stainless steel 304L***

Ordering information

1. Thermocouple:

☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Number of thermocouples: ☐ x 1 ☐ x 2

3. Class:

☐ Class 1 ☐ Class 2

4. Sheath length L (mm):

5. Sheath diameter Ø:

☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

6. Sheath material:

☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

7. Junction type:

☐ Ungrounded ☐ Grounded ☐ Exposed

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM61 – Mineral insulated thermocouples
Insert with terminal block (spring loaded)

Ordering information

1. Thermocouple:

☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Number of thermocouples: ☐ x 1 ☐ x 2

3. Class:

☐ Class 1 ☐ Class 2

4. Sheath length L (mm):

5. Sheath diameter Ø:

☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

6. Sheath material:

☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

7. Junction type:

☐ Ungrounded ☐ Grounded ☐ Exposed

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM62 – Mineral insulated thermocouples
Insert with transmitter (spring loaded)

Ordering information

1. Thermocouple:

☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:

☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:

☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:

☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:

☐ Ungrounded ☐ Grounded ☐ Exposed

7. Transmitter (°C):
Specify temperature range

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

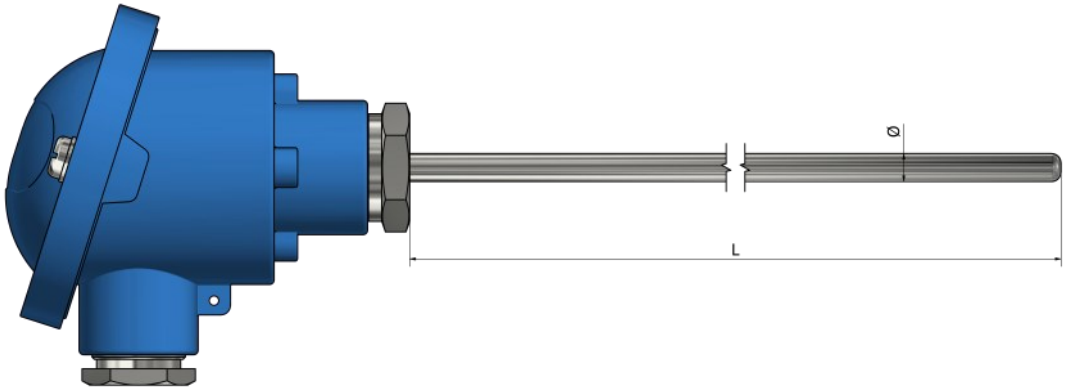
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM70 – Mineral insulated thermocouples
Connection head



Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Number of thermocouples: ☐ x 1 ☐ x 2

3. Class:
☐ Class 1 ☐ Class 2

4. Sheath length L (mm):

5. Sheath diameter Ø:
☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

6. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

7. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

8. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

9. Mounting:
☐ Wires ☐ Terminal block ☐ Transmitter (°C):
Specify temperature range

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

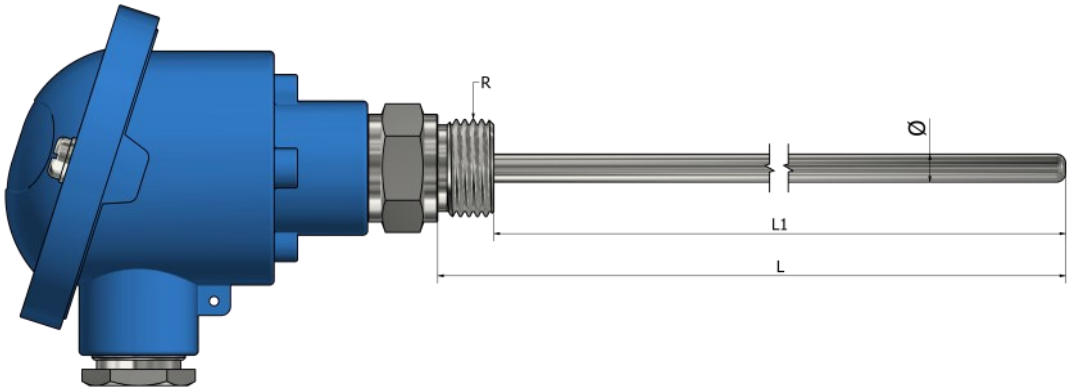
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM71 – Mineral insulated thermocouples
Connection head with fixed threaded fitting



*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Number of thermocouples: ☐ x 1 ☐ x 2

3. Class:
☐ Class 1 ☐ Class 2

4. Sheath length L or L1 (mm):

5. Sheath diameter Ø:
☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

6. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

7. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

8. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

9. Mounting:
☐ Wires ☐ Terminal block ☐ Transmitter (°C):
Specify temperature range

10. Thread:
☐ 1/2" BSPP ☐ 1/4" BSPP ☐ 1/4" BSPT ☐ M10
☐ 1/2" NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

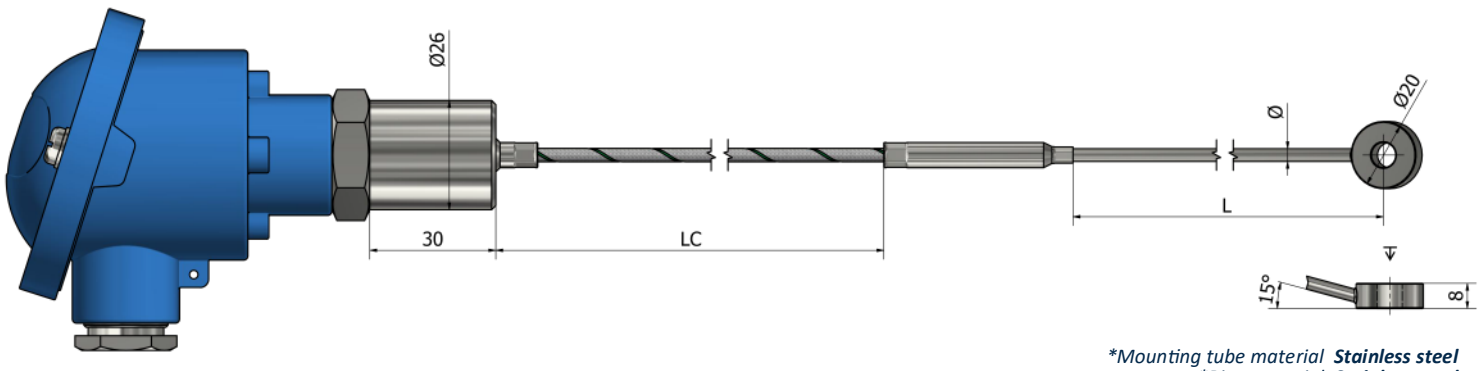
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM72 – Mineral insulated thermocouples
Skin type with ring



*Mounting tube material **Stainless steel**
*Ring material **Stainless steel**

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath length L (mm):

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded

7. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

8. Mounting:
☐ Wires ☐ Terminal block ☐ Transmitter (°C):
Specify temperature range

9. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

10. Cable length LC (mm):

11. Ring size: *(material **Stainless steel**)*
☐ M5 ☐ M6 ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

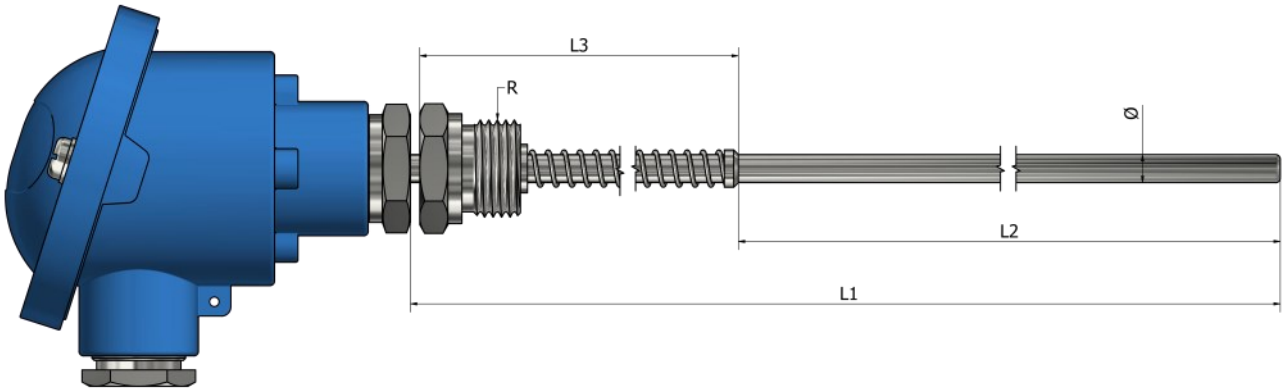
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM73 – Mineral insulated thermocouples
Connection head (spring loaded)



*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Sheath lengths L1 , L2 , L3 (mm):
L1 _____ L2 _____ L3 _____

4. Sheath diameter Ø:
☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

8. Mounting:
☐ Wires ☐ Terminal block ☐ Transmitter (°C):
Specify temperature range

9. Thread:
☐ 1/2" BSPP ☐ 1/4" BSPP ☐ 1/4" BSPT ☐ M10
☐ 1/2" NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

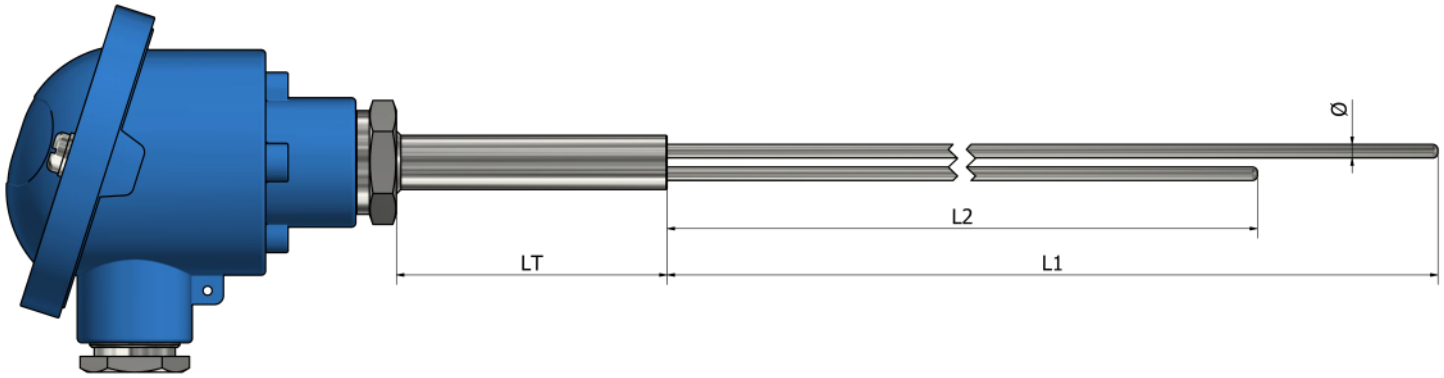
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

TM75 – Mineral insulated thermocouples
Multipoints with connection head



*Mounting tube material **Stainless steel 304L***

Ordering information

1. Thermocouple:
☐ Type K ☐ Type N ☐ Type J ☐ Type T ☐ Type E
☐ Type R ☐ Type S ☐ Type B ☐ Other:

2. Class:
☐ Class 1 ☐ Class 2

3. Number of sheaths and lengths L1, L2, L3 (mm):
☐ L1 _____ ☐ L2 _____ ☐ L3 _____

4. Sheath diameter Ø:
☐ 1 mm ☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm
☐ 6 mm ☐ 8 mm ☐ Other:

5. Sheath material:
☐ Inconel 600 ☐ AISI 310 ☐ AISI316 ☐ AISI321 ☐ Pt10%Rh
☐ Nicrobell/Pyrosil ☐ Other:

6. Junction type:
☐ Ungrounded ☐ Grounded ☐ Exposed

7. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

8. Mounting:
☐ Wires ☐ Terminal block

9. Mounting tube length LT (mm):

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

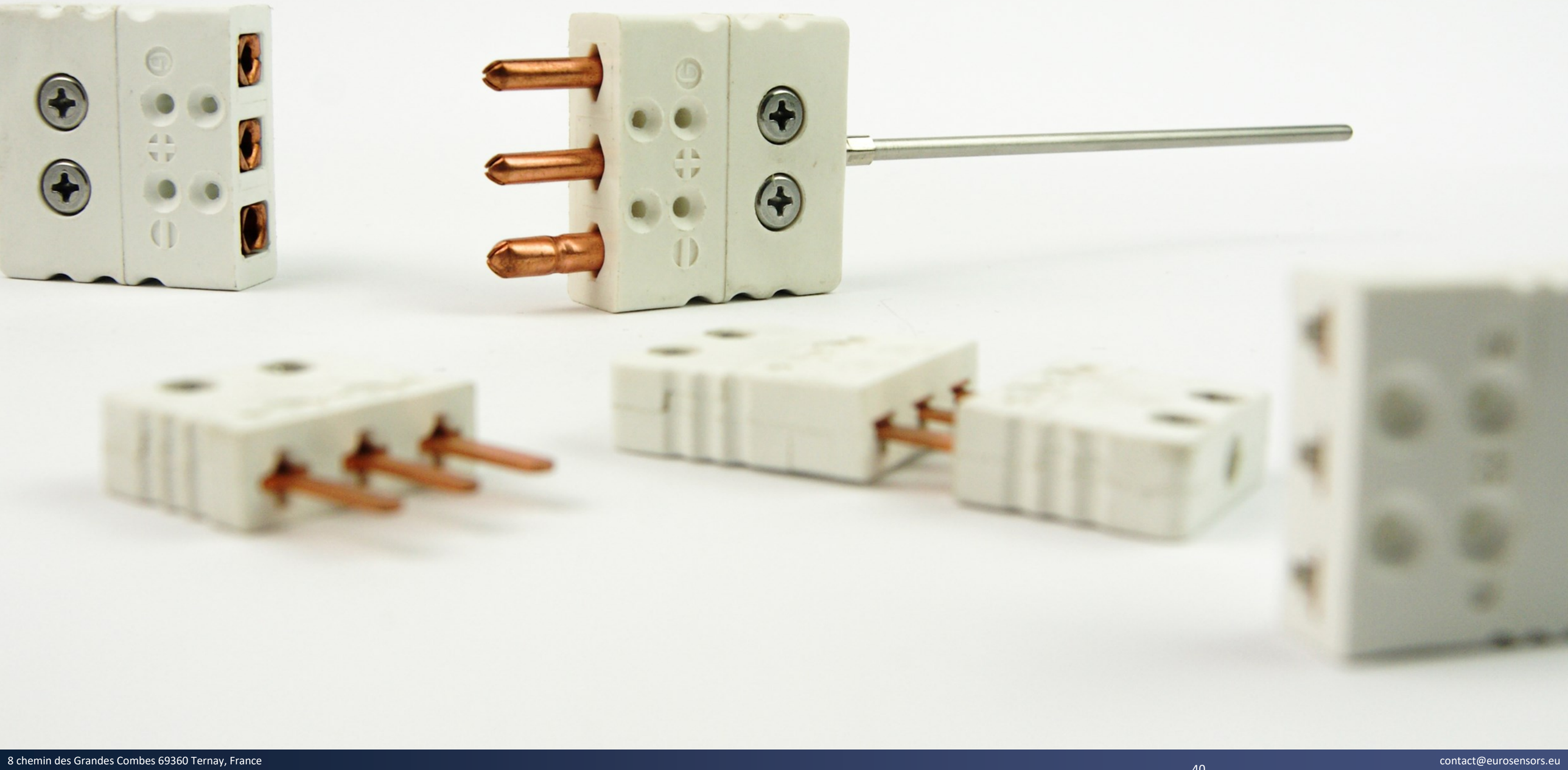
Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

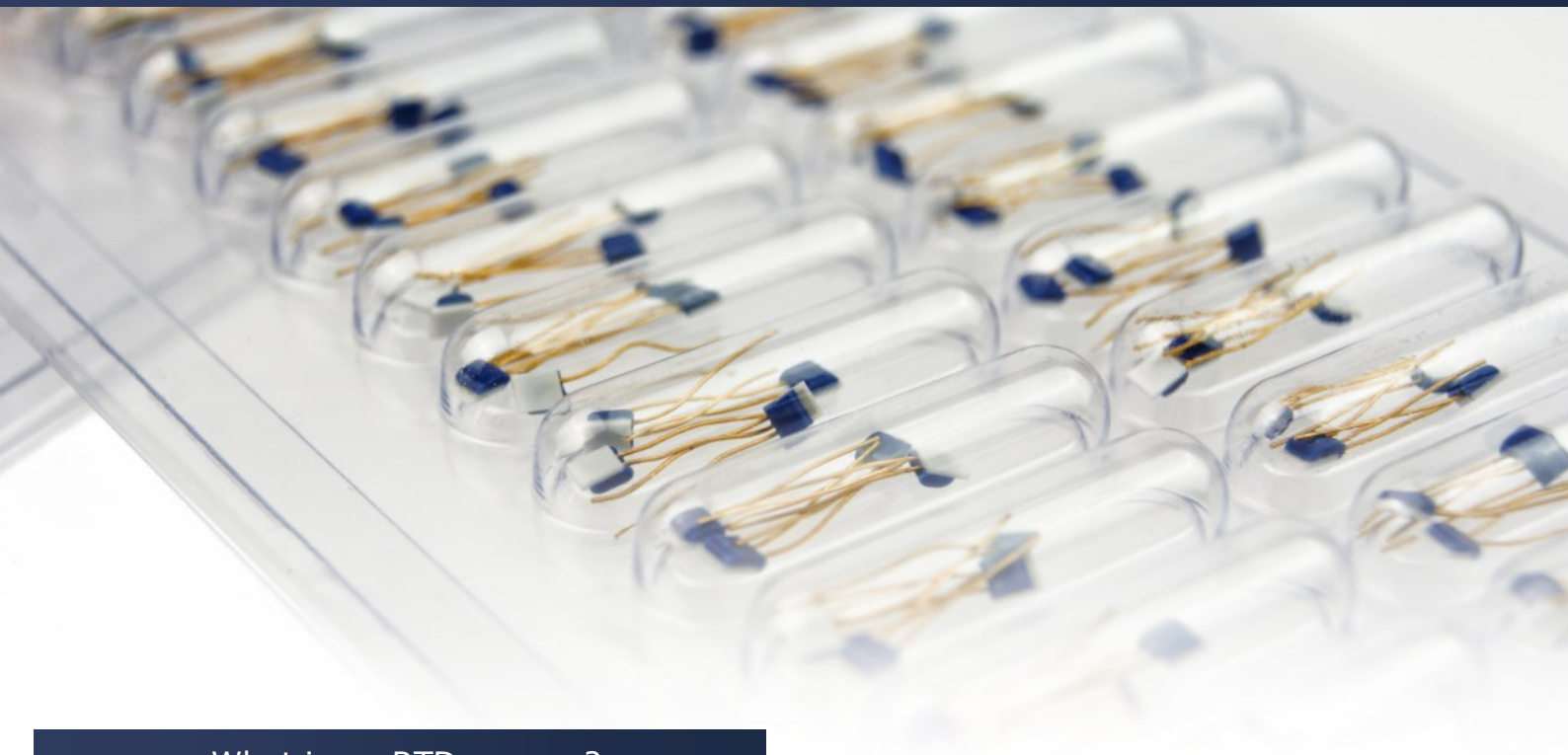
EuroSensors

Mineral insulated RTDs



EuroSensors

Mineral insulated RTDs - Technical information



What is an RTD sensor ?

An RTD (Resistance Temperature Detector) is a type of sensor used to measure temperature. It usually consists of a platinum material (PT100,PT500 or PT1000) which has a resistance that changes proportionally with temperature.
RTDs are used for accurate, stable and reliable temperature measurements in generally high temperature ranges.

RTDs advantages

RTDs have several advantages over other types of temperature sensors:

High precision

RTDs have high temperature sensitivity, typically in the range of 0.1 to 0.2% per °C, allowing for accurate temperature measurement.

Long term stability

RTDs have long-term stability and longer life than thermistors, making them more reliable for long-term applications.

Wide operating temperature range

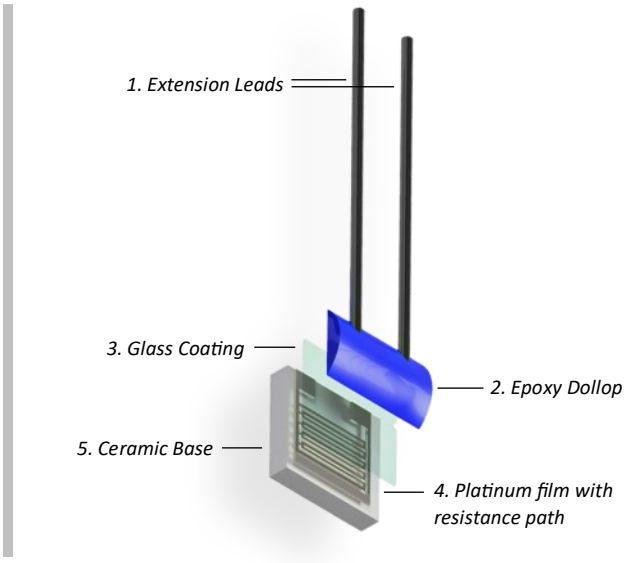
RTDs can operate in a temperature range of -200 to 850°C, making them suitable for many industrial applications.

Low ohmic resistance

RTDs have a low ohmic resistance compared to thermistors, which makes them easier to use with electronic circuits.

What is a PT probe ?

A PT (Platinum Resistance Thermometer) is a type of temperature sensor that uses a temperature deflection resistor (RTD) to measure temperature.



It is based on the principle that the electrical resistance of a conductive material increases when its temperature increases.

How does an RTD work ?

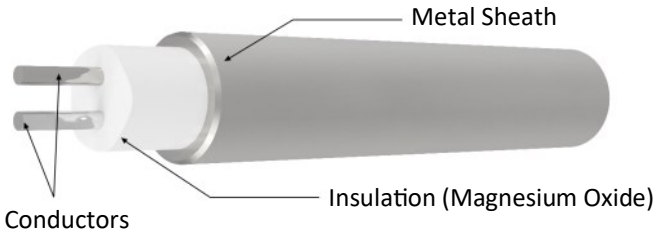
An RTD (variable temperature resistor) is a sensor that measures temperature using the variation of the electrical resistance of a conductive material. RTDs are usually made from platinum, gold or nickel. The operating principle of RTDs is based on Ohm's law of electrical resistance, which establishes a relationship between the electrical resistance of a conductor and its temperature. According to this law, the electrical resistance of a conductor generally increases when its temperature increases.

EuroSensors

Mineral insulated RTDs - Technical information

What is a mineral insulated probe ?

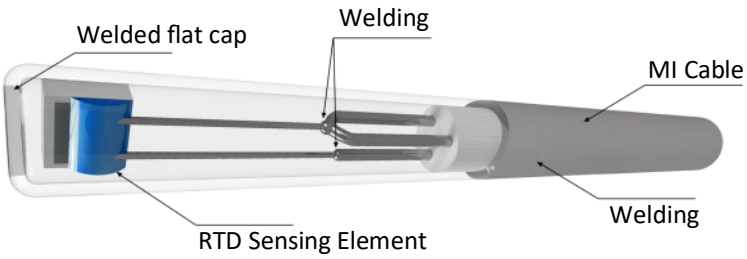
Mineral insulated probes are made from mineral insulated cable. It has a metallic sheath and on the inside, the conductors are insulated with densely packed magnesium oxide (MgO).



This construction bears a lot of advantages for temperature sensors. Mineral insulated probes are often referred to as sheathed temperature sensors.

Characteristics of sheathed probes

A sheathed RTD has an extremely wide temperature range: from below -200 °C up to more than 850 °C.
Furthermore, sheathed RTDs are resistant to vibration and scratches which proves their longevity. At the same time, they are bendable. Surprisingly, they are affordable as well: MI cable costs about the same as fiberglass cable.



We manufacture MI probes in diameters from 1.5 mm up to 8mm. To ensure maximum water tightness, we make either a connector or a robust cable transition onto the probe.

Sheath material types

When it comes to the production of mineral-insulated (MI) RTDs, two materials are commonly used for the sheath:

- **AISI 304L (up to 900°C)**

18% Chrome 8% Nickel (Reduced carbon content).
Reduced carbon content to improve weldability.

- **AISI 316L (up to 900°C)**

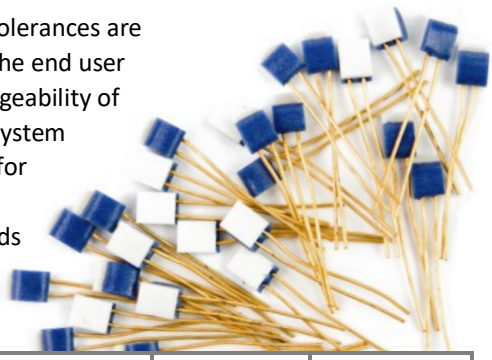
16% Chrome 10% Nickel 2-3% Molybdenum (Reduced carbon content). Reduced carbon content which improves corrosion resistance at low temperatures and better weldability.

Understanding the naming of Pt100, Pt500 and Pt1000 sensors

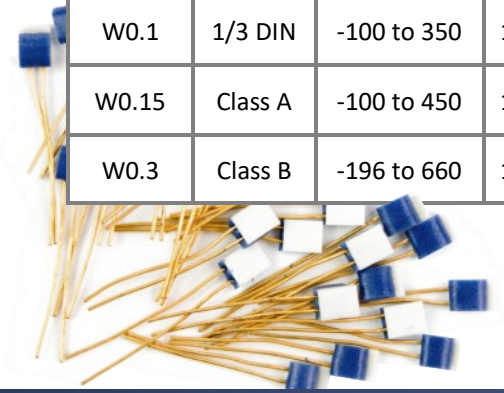
First of all, "Pt" is the chemical symbol for platinum because platinum is the basic material for making the measuring element. The naming conventions of P100, PT500, and PT1000 sensors are closely tied to the nominal resistance values they exhibit at 0°C.
P100 sensor has a nominal resistance of 100 Ω at 0°C,
Pt500 sensor has a nominal resistance of 500 Ω at 0°C and Pt1000 sensor has a nominal resistance of 1000 Ω at 0°C.
Understanding the meaning behind these designations allows us to discern their specific characteristics and applications.
Whether you require a standard PT100 sensor or a higher resistance variant like PT500 or PT1000, these RTD sensors provide reliable and accurate temperature measurements in a wide range of industries and applications.

Classes

Tolerances of RTD sensors can be tailored to customer specifics and thus manufactured to different tolerances. The higher the tolerance the smaller the margin of error relative to lower tolerances.
A system where these tolerances are classified is helpful for the end user and helps the interchangeability of these sensors. The IEC system is seen as the standard for the industry although there are other standards and other tolerance classes.



IEC Standard	DIN4370	Temperature Range ºC	Tolerance Ω at 0ºC	Tolerance ºC
W0.03	1/10 DIN	-100 to 350	100±0.012 Ω	±0.03 °C
/	1/5 DIN	-100 to 350	100±0.024 Ω	±0.06 °C
W0.1	1/3 DIN	-100 to 350	100±0.04 Ω	±0.10 °C
W0.15	Class A	-100 to 450	100±0.06 Ω	±0.15 °C
W0.3	Class B	-196 to 660	100±0.12 Ω	±0.30 °C



Mineral insulated RTDs - Technical information

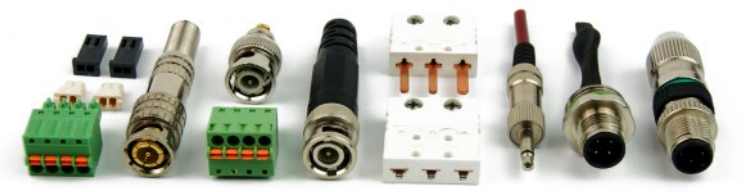
RTDs accessories

Temperature sensor accessories are equipment used to improve the performance of temperature measuring devices.
It is important to choose quality sensor accessories to ensure optimal performance and long-term reliability.
Our accessories are made of strong and resistant materials to guarantee maximum durability.
Eurosensors offers a wide selection of temperature sensor accessories to meet your specific needs.
Accessories include: thermocouple cables for reliable and accurate data transmission, compression fittings for easy installation, thermowells to protect sensors from mechanical damage, terminal heads for easy access to sensors, transmitters for networked data transmission, and ceramic terminal blocks for electrical isolation.

How to choose your accessory ?

It is important to choose the right type of cable, fitting, thermowell, terminal head, connector and transmitter to ensure that your temperature sensor operates reliably and accurately.
The compression fitting must match the type of sensor you are using. It must also be compatible with the sensor diameter and location thread.
The thermowell protects the sensor from mechanical damage and high temperatures. It must be selected according to the operating temperature and the required mechanical strength.
The connection head must be compatible with the type of cable and the application. It must also be able to withstand the temperatures and environment in which it will be used.
The connector can be diverse, due to the non-standardization of RTD sensors. Our company can make all the connectors you need according to your request
The RTD transmitter must be compatible with the type of sensor used and must be able to convert the signal to a standard electrical signal.
The ceramic terminal block is used to attach electrical cables to a control box. It must be compatible with the type of cable used and resistant to high temperatures.

RTD connectors



Due to the lack of standardization in RTD connectors, our company takes pride in its ability to produce a wide range of RTD connectors.

We understand that different industries and applications have unique requirements when it comes to temperature measurement, and that includes the connectors used. With our expertise and advanced manufacturing capabilities, we have the flexibility to design and produce various types of RTD connectors.

Terminal heads

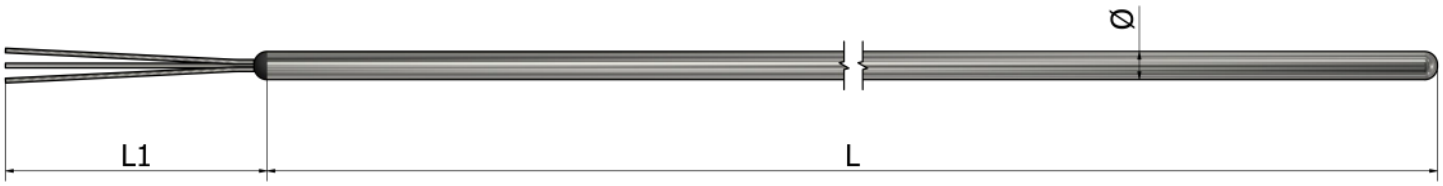
Many alternative types of terminal head are available to meet the requirements of various applications. Variations exist in size, material, accommodation, resistance to media, resistance to fire or even explosion and in other parameters. Common types are shown below but there are many special variants available to meet particular requirements.

Terminal block located in a "head" allow for the connection of extension wires. Various materials are used for screw or solder terminations including copper, plated brass and, for the best performance in the case of thermocouples, thermoelement alloys. The various head styles cater for a wide variety of probe diameters and cable entries.

Additional accessories

For more detailed information see ***"Accessories".***

PM00 – Mineral insulated RTDs
Stripped



Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath length L (mm):

6. Sheath diameter Ø: *(Ø 1,5 et 2 mm only for one element x1)*
☐ 1,5 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm ☐ 8 mm
☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

8. Stripping length L1 (mm):

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

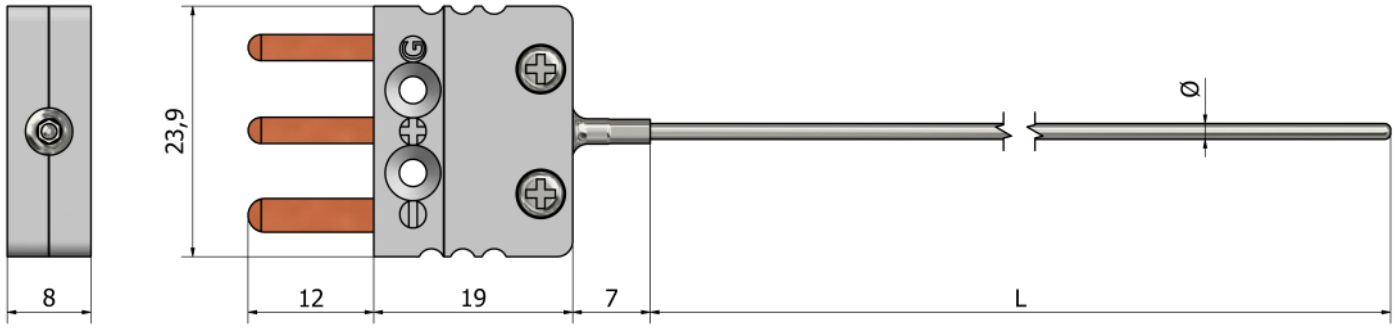
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM10 – Mineral insulated RTDs
Miniature connector termination



Ordering information

1. Element type:

☐ Pt 100 ☐ Pt 500 ☐ Pt 1000

☐ Other:

2. Element class:

☐ A ☐ B ☐ Other:

3. Wiring configuration: *(number of wires)*

☐ 2 ☐ 3

4. Sheath length L (mm):

5. Sheath diameter Ø:

☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm

☐ Other:

6. Sheath material:

☐ AISI304L ☐ AISI316L ☐ Other:

7. Miniature connector 200°C:

☐ Plug ☐ Socket

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

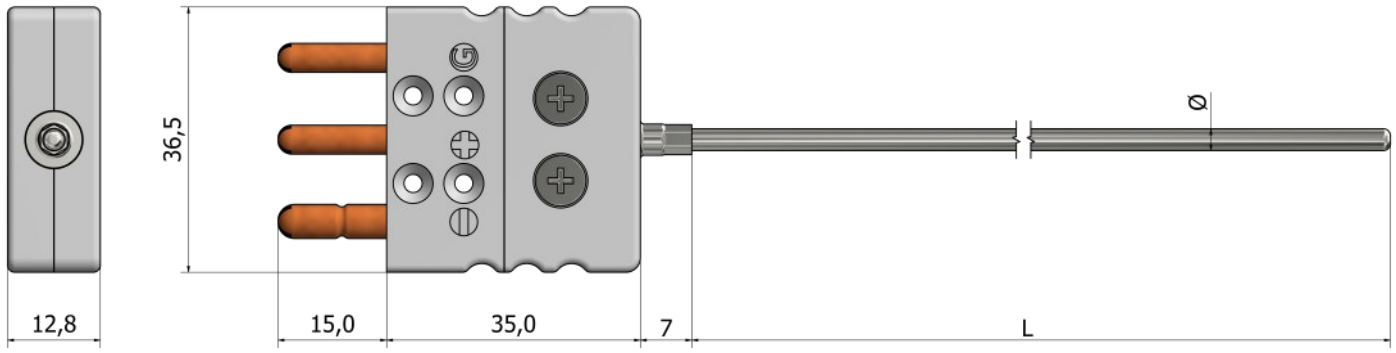
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM12 – Mineral insulated RTDs
Standard connector termination



Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Wiring configuration: *(number of wires)*
☐ 2 ☐ 3

4. Sheath length L (mm):

5. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm
☐ Other:

6. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

7. Standard connector 200°C:
☐ Plug ☐ Socket

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM14 – Mineral insulated RTDs
LEMO connector

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Wiring configuration: *(number of wires)*
☐ 2 ☐ 3 ☐ 4

4. Sheath length L (mm):

5. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm
☐ Other:

6. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

7. LEMO connector type:
☐ Plug ☐ Socket

8. LEMO connector size: *(sheath from Ø mm to Ø mm)*
☐ S1 (1,5 mm to 3 mm) ☐ S2 (4,5 mm to 6 mm)
☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM20 – Mineral insulated RTDs
Cable prolongation

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath length L (mm):

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm
☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

8. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

9. Cable length LC (mm):

10. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM21 – Mineral insulated RTDs
Cable prolongation with connector

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Wiring configuration: *(number of wires)*
☐ 2 ☐ 3

4. Sheath length L (mm):

5. Sheath diameter Ø:
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm
☐ Other:

6. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

7. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

8. Cable length LC (mm):

9. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

10. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket
☐ Other:

11. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

EuroSensors

PM30 – Mineral insulated RTDs
Reduced tip

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath length L (mm):

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm
☐ Other:

5. Sheath length L1 (mm):

6. Sheath diameter Ø1: *(requirement Ø1 > Ø)*
☐ 6 mm ☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

8. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

9. Cable length LC (mm):

10. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

11. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket
☐ Without ☐ Other:

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

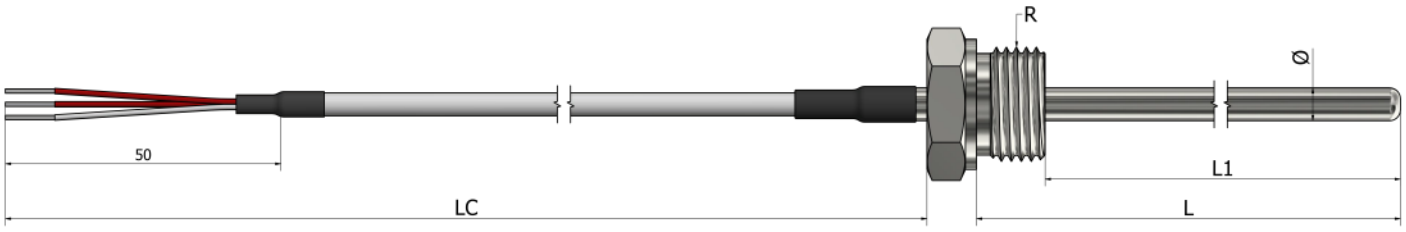
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM40 – Mineral insulated RTDs
Cable prolongation with fixed threaded fitting



*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath length L or L1(mm):

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*
☐ 1,5 mm ☐ 2 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm
☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

8. Cable prolongation:
☐ PVC (105°C) ☐ Silicone (180°C) ☐ Teflon (260°C)
☐ Fiberglass (400°C) ☐ Other:

9. Cable length LC (mm):

10. Crimp protection:
☐ Spring ☐ Heat shrink sleeve ☐ Without

11. Connector:
☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket
☐ Without ☐ Other:

12. Option:
☐ Cable clamp ☐ Custom ID label ☐ Without

13. Thread:
☐ 1/2'' BSPP ☐ 1/4'' BSPP ☐ 1/4'' BSPT ☐ M10
☐ 1/2'' NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

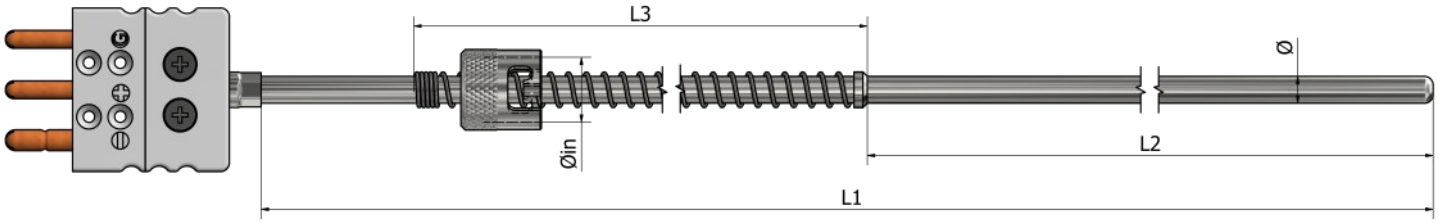
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM53 – Mineral insulated RTDs
Bayonet



Bayonet cap* ***Nickel-plated brass*

Ordering information

1. Element type:

☐ Pt 100 ☐ Pt 500 ☐ Pt 1000

☐ Other:

2. Element class:

☐ A ☐ B ☐ Other:

3. Wiring configuration: *(number of wires)*

☐ 2 ☐ 3

4. Sheath lengths L1, L2, L3 (mm):

L1 _____ L2 _____ L3 _____

5. Sheath diameter Ø:

☐ 3 mm ☐ 4,5 mm ☐ 6 mm

☐ Other:

6. Sheath material:

☐ AISI304L ☐ AISI316L ☐ Other:

7. Bayonet cap Øin: *(to suit sheath Ø mm)*

☐ 10,3 mm (3 mm) ☐ 12,4 mm (4,5 mm) ☐ 14,5 mm (6 mm)

☐ Other:

8. Connector:

☐ Miniature Plug ☐ Miniature Socket ☐ Standard Plug ☐ Standard Socket

☐ Without ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

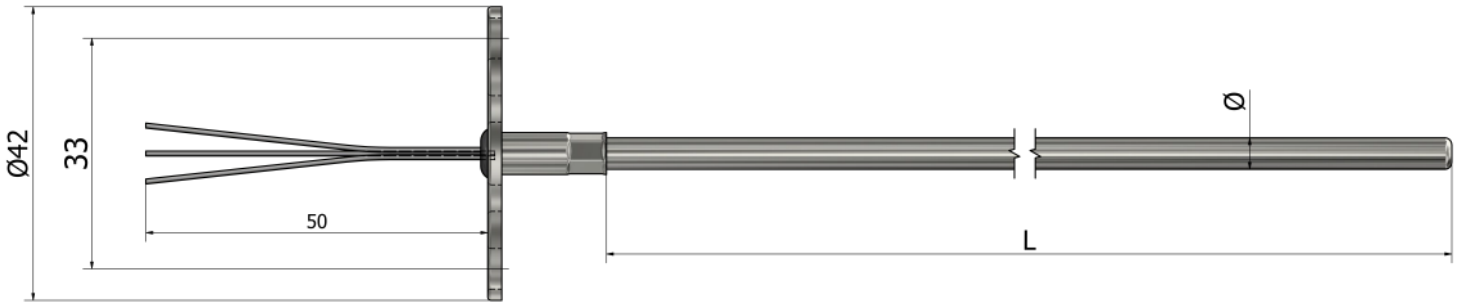
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM60 – Mineral insulated RTDs
Disk plate insert



*Disc plate material **Stainless steel 304L***

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath length L (mm):

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*
☐ 1,5 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm ☐ 8 mm
☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM61 – Mineral insulated RTDs
Insert with terminal block (spring loaded)

Ordering information

1. Element type:

☐ Pt 100 ☐ Pt 500 ☐ Pt 1000

☐ Other:

2. Element class:

☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*

☐ 2 ☐ 3 ☐ 4

5. Sheath length L (mm):

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*

☐ 1,5 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm ☐ 8 mm

☐ Other:

7. Sheath material:

☐ AISI304L ☐ AISI316L ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM62 – Mineral insulated RTDs
Insert with transmitter (spring loaded)

Ordering information

1. Element type:

☐ Pt 100 ☐ Pt 500 ☐ Pt 1000

☐ Other:

2. Element class:

☐ A ☐ B ☐ Other:

3. Wiring configuration: *(number of wires)*

☐ 2 ☐ 3 ☐ 4

4. Sheath length L (mm):

5. Sheath diameter Ø:

☐ 1,5 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm ☐ 8 mm

☐ Other:

6. Sheath material:

☐ AISI304L ☐ AISI316L ☐ Other:

7. Transmitter (°C):

Specify temperature range

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

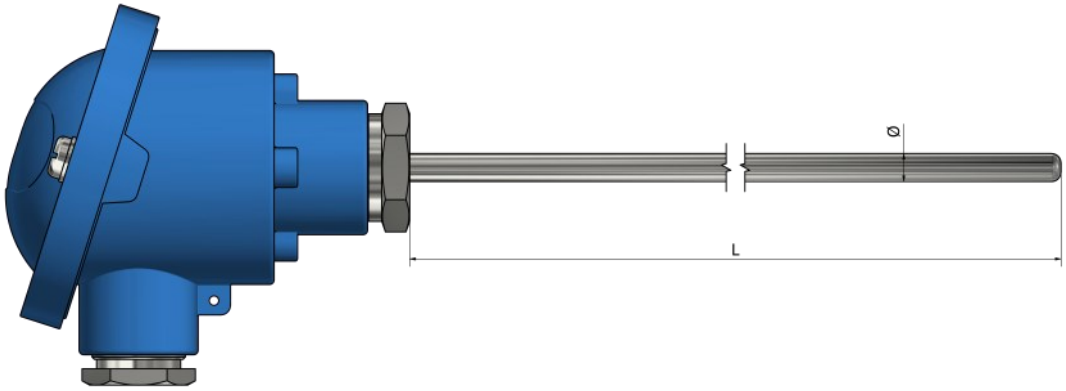
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM70 – Mineral insulated RTDs
Connection head



Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath length L (mm):

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*
☐ 1,5 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm ☐ 8 mm
☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

8. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

9. Mounting:
☐ Wires ☐ Terminal block ☐ Transmitter (°C):
Specify temperature range

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

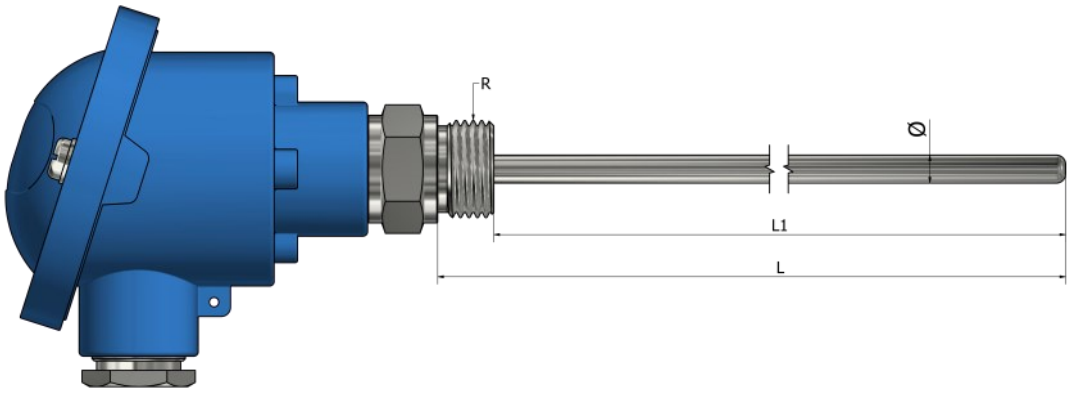
Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

EuroSensors

PM71 – Mineral insulated RTDs
Connection head with fixed threaded fitting



*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath length L or L1 (mm):

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*
☐ 1,5 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm ☐ 8 mm
☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

8. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

9. Mounting:
☐ Wires ☐ Terminal block ☐ Transmitter (°C):
Specify temperature range

10. Thread:
☐ 1/2'' BSPP ☐ 1/4'' BSPP ☐ 1/4'' BSPT ☐ M10
☐ 1/2'' NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

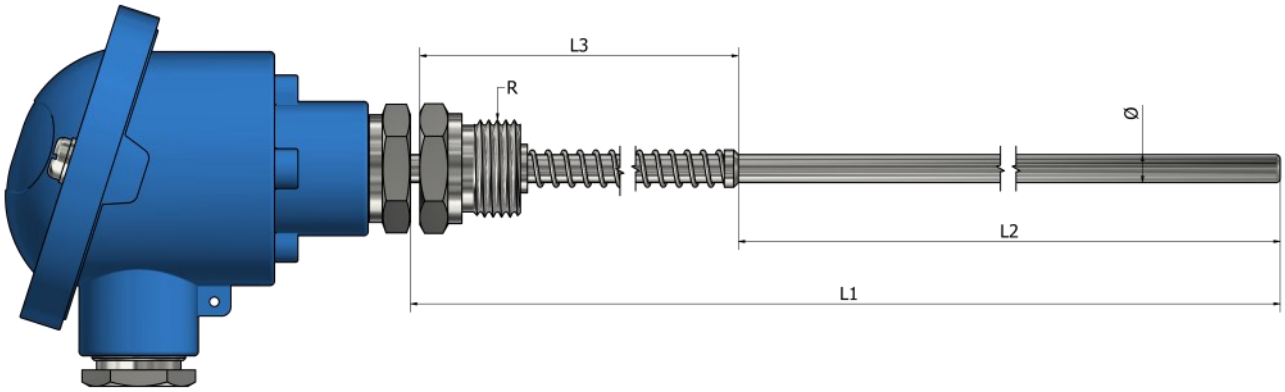
Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.

PM73 – Mineral insulated RTDs
Connection head (spring loaded)



*Thread material **Stainless steel (304 / 304L / 316 / 316L)***

Ordering information

1. Element type:
☐ Pt 100 ☐ Pt 500 ☐ Pt 1000
☐ Other:

2. Element class:
☐ A ☐ B ☐ Other:

3. Number of elements: ☐ x 1 ☐ x 2

4. Wiring configuration: *(number of wires per element)*
☐ 2 ☐ 3 ☐ 4

5. Sheath lengths L1, L2, L3 (mm):
L1 _____ L2 _____ L3 _____

6. Sheath diameter Ø: *(Ø 1,5 and 2 mm only for one element x1)*
☐ 1,5 mm ☐ 3 mm ☐ 4,5 mm ☐ 6 mm ☐ 8 mm
☐ Other:

7. Sheath material:
☐ AISI304L ☐ AISI316L ☐ Other:

8. Connection head: *(see the part "Accessories")*
☐ Type B ☐ Type DAN ☐ Type M ☐ Type N
☐ Type Ex ☐ Type NS ☐ Other:

9. Mounting:
☐ Wires ☐ Terminal block ☐ Transmitter (°C):
Specify temperature range

10. Thread:
☐ 1/2'' BSPP ☐ 1/4'' BSPP ☐ 1/4'' BSPT ☐ M10
☐ 1/2'' NPT ☐ Other:

Additional:

Application:

Operating temperature (min/max):

Type of environment:

Accessories:
See the part "Accessories"

Quantity:

Note:

How to order?

Choose the desired characteristics of your sensor by marking the checkboxes and by filling up the text. You can provide sketches, images, personal notes, special requirements or any important data. For additional questions and assistance, feel free to contact us.