

## TEMPERATURE

### 1 THERMORESISTANCES

- 1.1 GENERAL USE
  - 1.1.1 RA
  - 1.1.2 RGN
  - 1.1.3 RGB
  - 1.1.4 RUM
  - 1.1.5 RSA
  - 1.1.6 RSN
- 1.2 FOOD-SANITARY
  - 1.2.1 RSP
- 1.3 DIRECT CONTACT
  - 1.3.1 RST
- 1.4 ATEX USE

### 2 THERMOCOUPLES

- 2.1 GENERAL USE
  - 2.1.1 TA
  - 2.1.2 TGN
  - 2.1.3 TGB
  - 2.1.4 TUM
  - 2.1.5 TSA
  - 2.1.6 TSN
- 2.2 HIGH TEMPERATURES USE
  - 2.2.1 TK
  - 2.2.2 TM
- 2.3 ATEX USE

### 3 THREADED THERMOWELLS

- 3.1 GENERAL USE
  - 3.1.1 TA-BHW-1
  - 3.1.2 TA-BHW-2
  - 3.1.3 TA-BHW-3
  - 3.1.4 TA-BHW-4
- 3.2 USE FOR THERMOMETERS
  - 3.2.1 TA-PHW

### 4 FLANGED THERMOWELLS

- 4.1 GENERAL USE
  - 4.1.1 TA-BRS-1
  - 4.1.2 TA-BRS-2
  - 4.1.3 TA-BRS-3
  - 4.1.4 TA-BRS-4
  - 4.1.5 TA-PRS
- 4.2 EXTREME CONDITIONS
  - 4.2.1 TA-BRU-1
  - 4.2.2 TA-BRU-2
  - 4.2.3 TA-BRU-3
  - 4.2.4 TA-BRU-4

## 1 THERMORESISTANCES &gt; 1.1 GENERAL USE

1.1.1

RA

**CHARACTERISTICS**

General use sensor. Working temperature range -200°C to +850°C.

Connexion to the process can be adjustable through compression fitting, free insertion without coupling, or thermowell.

Removable measuring unit, RUM model.

Ceramic support, optional transmitter 4...20 mA.

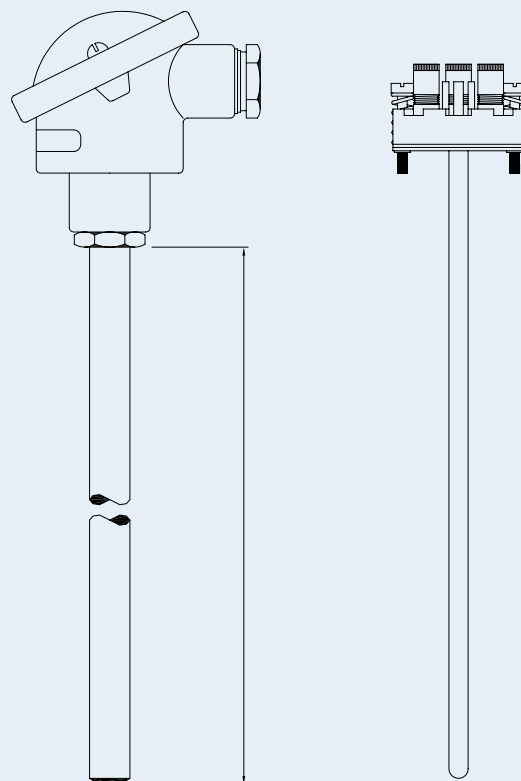
Complying DIN 43760 standard.

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**SPECIFICATIONS**

Process connexion	BSP, NPT, METRIC, ETC...
Sensor tube diameter	3, 4, 6, 8... 15mm
Sensing element	Pt100
Connexions	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-200°C to +600°C (option 850°C)



## 1 THERMORESISTANCES &gt; 1.1 GENERAL USE

1.1.2

## RGN

**CHARACTERISTICS**

General use sensor. Working temperature range -200°C to +850°C.

This model can be used directly in the process or through thermowell.

Coupling under connexion head BSP, NPT , METRIC, etc...

Removable measuring unit, RUM model.

Ceramic support, optional transmitter 4...20 mA.

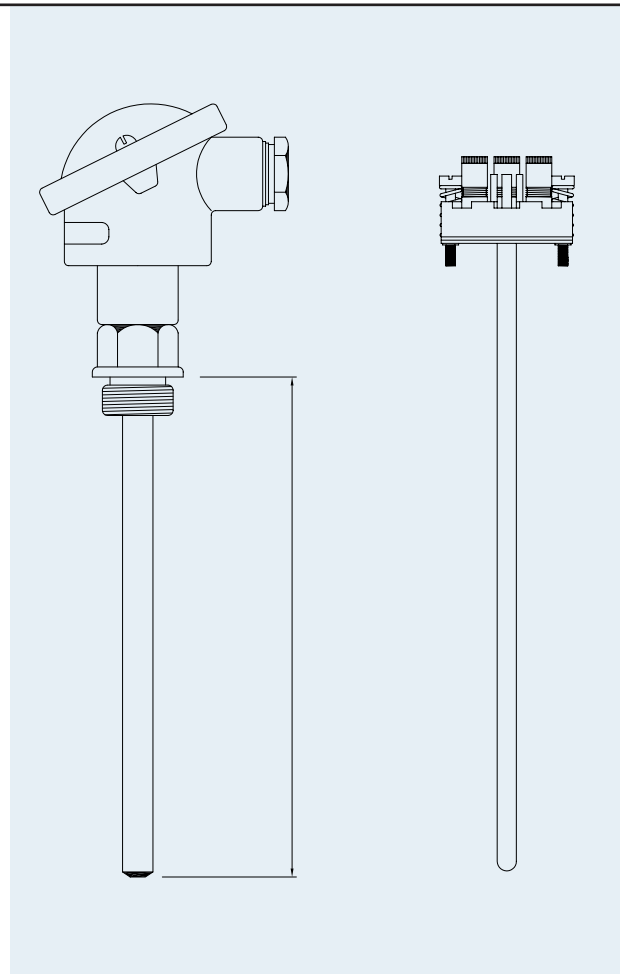
Complying DIN 43760 standard.

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**SPECIFICATIONS**

Process connexion	BSP, NPT, METRIC, ETC...
Sensor tube diameter	3, 4, 6, 8... 15mm
Sensing element	Pt100
Connexions	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-200°C to +600°C (option 850°C)



## 1 THERMORESISTANCES &gt; 1.1 GENERAL USE

1.1.3

## RGB

**CHARACTERISTICS**

General use sensor. Working temperature range -200°C to +850°C.

This model can be used in the process directly or through thermowell.

With cooling neck for insulation pipe of high temperature installations.

Length 100-145mm under connexion head.

Coupling under cooling neck BSP, NPT, METRIC, etc...

Removable measuring unit, RUM model.

Ceramic support, optional transmitter 4...20 mA.

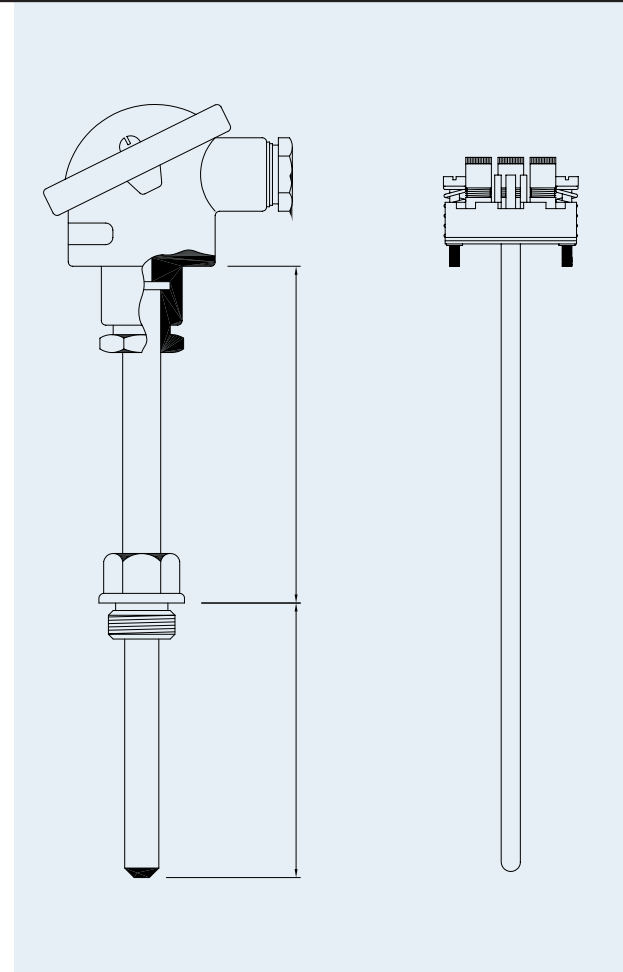
Complying DIN 43760 standard.

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**SPECIFICATIONS**

Process connexion	BSP, NPT, METRIC, ETC...
Sensor tube diameter	3, 4, 6, 8...15mm
Sensing element	Pt100
Connexions	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-200°C to +600°C (option 850°C)



## 1 THERMORESISTANCES &gt; 1.1 GENERAL USE

1.1.4

## RUM

**CHARACTERISTICS**

Standard measuring unit for general use. Working temperature range -200°C to +850°C.

RTD Pt100/ 3h DIN 43760 Class B.

This model is suitable for all our thermoresistances and is designed for various mounting configurations with load springs.

Thermowell connexion accessories:

- Nipple
- Three-part screw

(Accessories conform to ATEX standard optional)

Ceramic support, optional transmitter 4...20 mA.

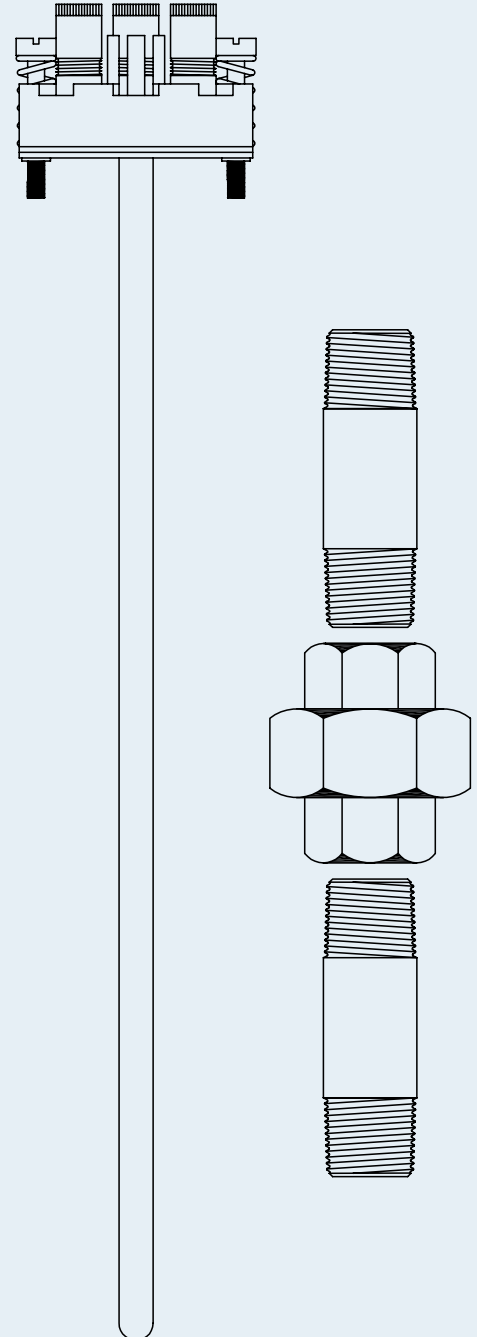
Complying DIN 43760 standard.

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**SPECIFICATIONS**

Sensor tube diameter	3, 4, 6, 8... 15mm
Sensing element	Pt100
Connexions	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-200°C to +600°C (option 850°C)



## 1 THERMORESISTANCES &gt; 1.1 GENERAL USE

1.1.5

## RSA

**CHARACTERISTICS**

General use sensor.  
 Connexion cable 2, 3, 4 or 6 wires of PTFE, PVC, or silicon.  
 Sheath Ø3, 4, 5, 6 or 8mm in AISI-316 or AISI-304  
 Anti-vibration protector spring.  
 Connexion to the process is adjustable using compression fitting,  
 or free insertion without coupling.

Ceramic support, optional transmitter 4...20 mA.

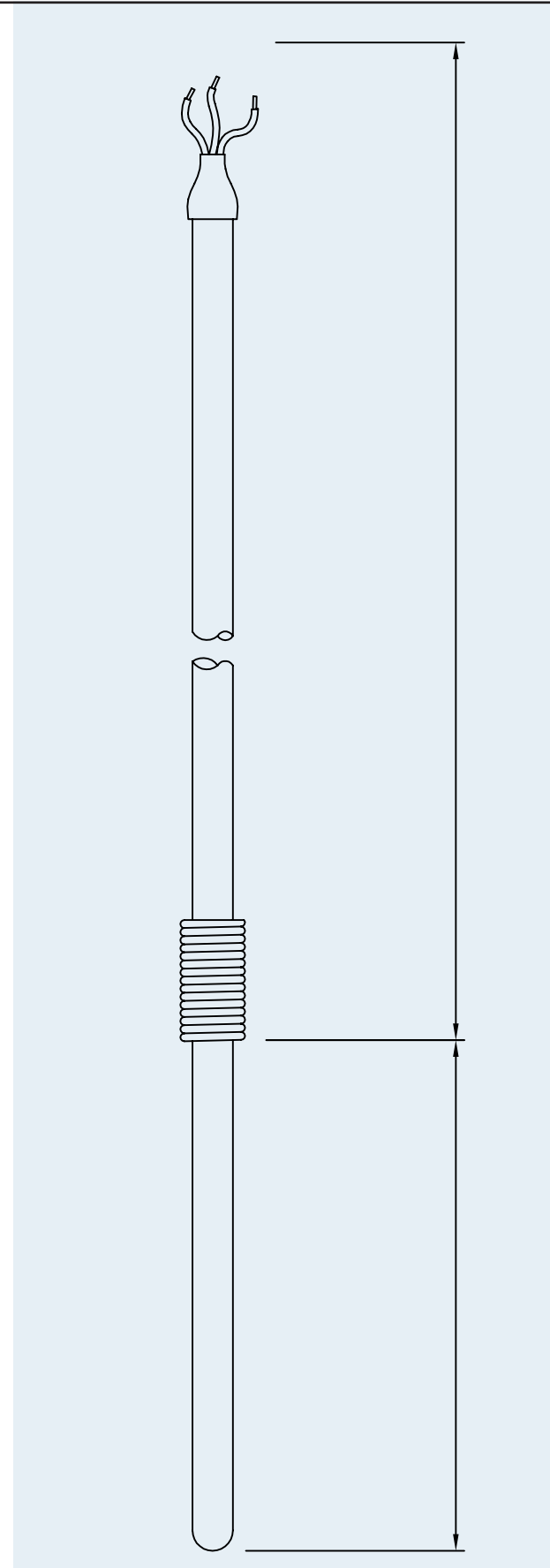
Complying DIN 43760 standard.

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**SPECIFICATIONS**

Sensor tube diameter	3, 4, 6, 8mm
Sensing element	Pt100
Connexions	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-200°C to +400°C



## 1 THERMORESISTANCES &gt; 1.1 GENERAL USE

1.1.6

## RSN

**CHARACTERISTICS**

General use sensor.  
 Cable 2, 3, 4 or 6 conductors in PFA, PVC, or silicon.  
 Sheath Ø3, 4, 5, 6 or 8mm in AISI-316 or AISI-304  
 Anti-vibration protector spring.  
 Coupling under protector spring BSP, NPT, METRIC, etc...

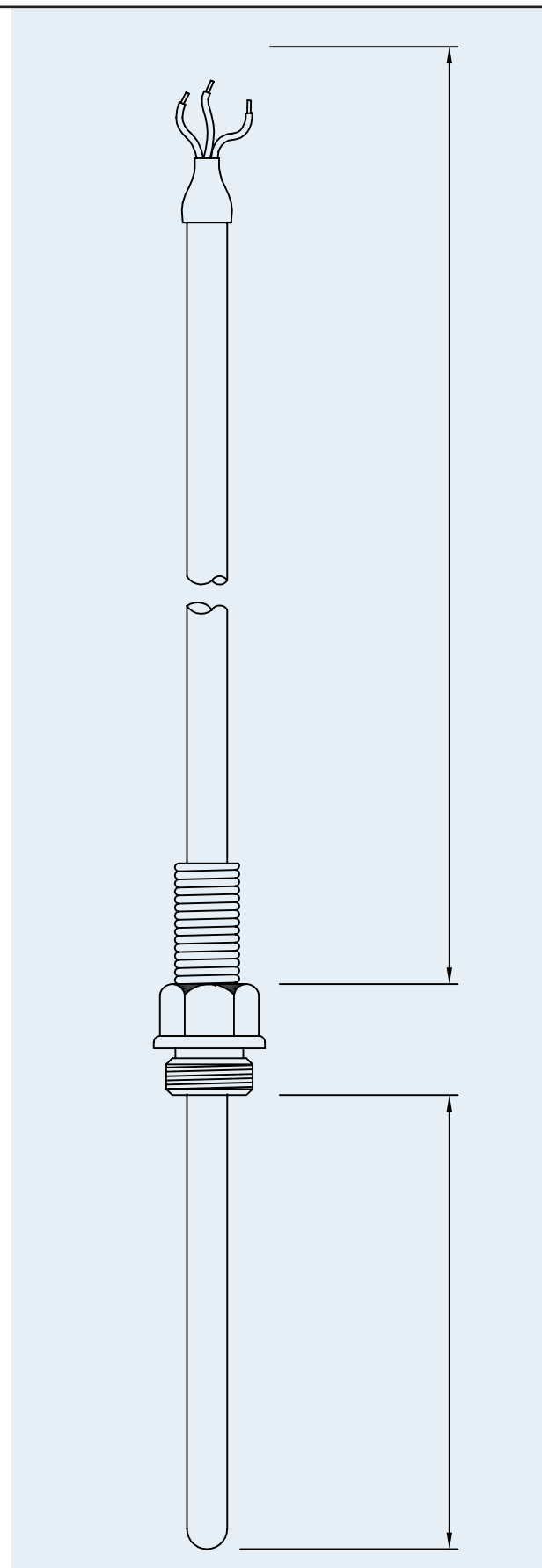
Complying DIN 43760 standard

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**SPECIFICATIONS**

Sensor tube diameter	3, 4, 5, 6 or 8mm
Process connexion	BSP, NPT, METRIC, ETC...
Sensing element	Pt100
Connexions	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-200°C to +400°C



## 1 THERMORESISTANCES &gt; 1.2 FOOD-SANITARY

1.2.1

## RSP

**CHARACTERISTICS**

Portable sensor to be used in the food sector, designed for autoclaves, frozen, as well as for the measuring of the temperature of liquids and solids.

Sheath Ø3, 4, 5, 6 or 8mm in AISI-316 or AISI-304, with spike end for insertion or plane end for direct contact.

With an Aluminium or PVC handle and a connexion cable of 3 x 0.5mm<sup>2</sup>, PFA or silicon insulation.

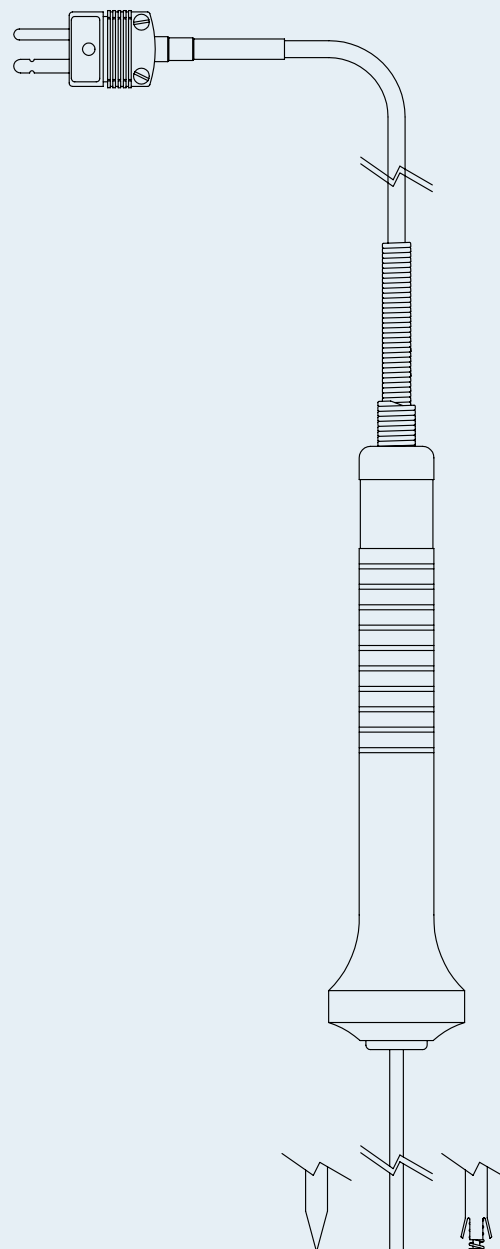
Complying DIN 43760 standard.

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**SPECIFICATIONS**

Sensor tube diameter	3, 4, 5, 6 or 8mm
Sensing element	Pt100
Connexions	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-200°C to +400°C



## 1 THERMORESISTANCES &gt; 1.3 DIRECT CONTACT

1.3.1

## RST

**CHARACTERISTICS**

Sensor for ambient temperature measurements.  
Sheath of nickel-plated brass, Teflon® or stainless steel and  
connexions head in stainless steel or PVC.

Working temperature range - 50°C to +200°C.

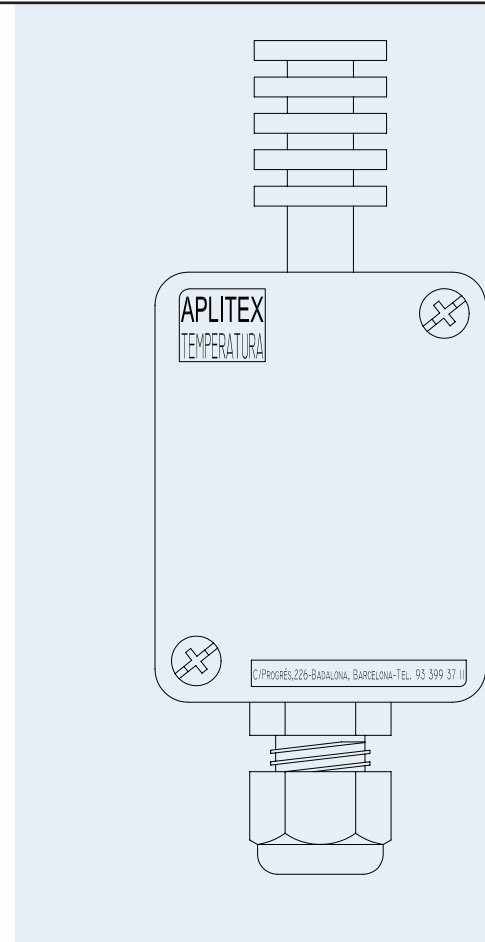
Ceramic support, optional transmitter 4...20 mA.

**APPLICATIONS**

- Chemical industry
- Other industries
- Laboratories
- Air conditioning technology
- Drying places and greenhouses

**SPECIFICATIONS**

Sensing element	Pt100
Connexion	2, 3 and 4 wires
Accuracy	CLASS A or B (option 1/3, 1/5, 1/6, 1/10 DIN)
Measurement range	-50°C to +200°C



**1 THERMORESISTANCES > 1.4 ATEX USE**

1.4

**ATEX USE**

The thermoresistances were designed and developed to be used in industries with explosion hazard of categories 1 and 2 for gases and powders, meeting the requirements of the 94/9/EC directive (ATEX).

They reach an advanced ATEX certification, not only because of their electronic, but also because of their probe, and that's why they have to be considered as more than "simple elements".

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

## 1.1 GENERAL USE

1.1.1 RA

1.1.2 RGN

1.1.3 RGB

1.1.4 RUM

1.1.5 RSA

1.1.6 RSN

## 1.3 DIRECT CONTACT

1.3.1 RST



## 2 THERMOCOUPLES &gt; 2.1 GENERAL USE

2.1.1

TA

**CHARACTERISTICS**

General use thermocouple.  
 Sheath material: AISI-316, AISI-310, AISI-446, Alloy 600 or Alloy 800 depending on type of selected thermocouple.  
 Connexion to the process can be adjustable through compression fitting, free insertion without coupling, or thermowell.

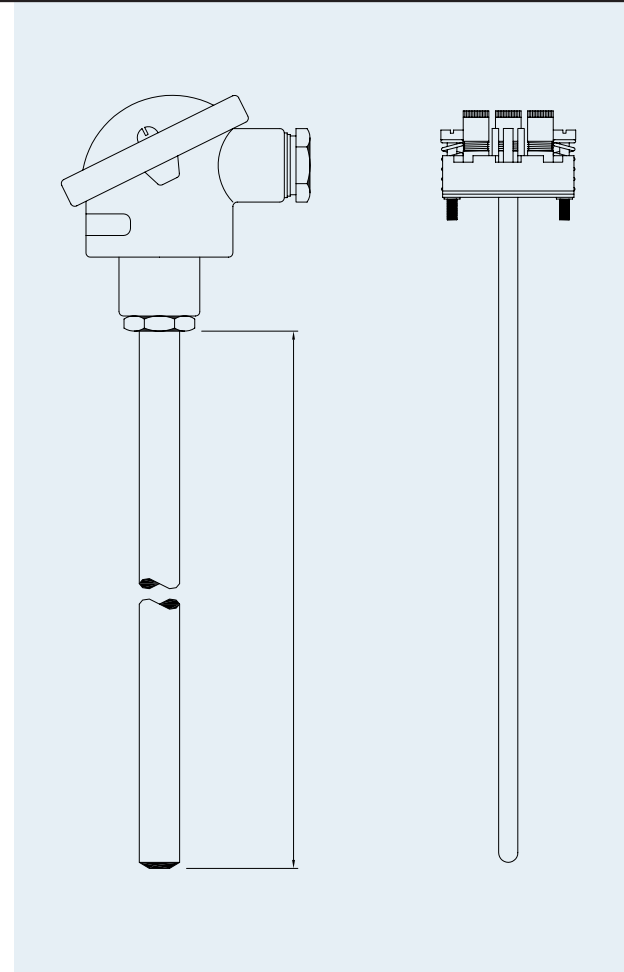
Ceramic support, optional transmitter 4...20 mA.

**APPLICATIONS**

Kilns, furnaces, burners, galvanizing baths, heat treatment baths and all high temperature thermal processes.

**SPECIFICATIONS**

Process connexion	BSP, NPT, METRIC, ETC...
Sensor tube diameter	6 or 8mm
Sensing element	K, J, N, E
Connexions	2, 4 wires
Working temperature range	-200°C to +1200°C (depending on selected thermocouple)



## 2 THERMOCOUPLES &gt; 2.1 GENERAL USE

2.1.2

## TGN

**CHARACTERISTICS**

General use thermocouple.  
 Sheath material: AISI-316, AISI-310, AISI-446, Alloy 600, or Alloy 800 depending on type of selected thermocouple.  
 This model can be used in the process directly or through thermowell.  
 Coupling under connexion head GAS ,NPT, METRIC, etc...

Removable measuring unit, TUM model.

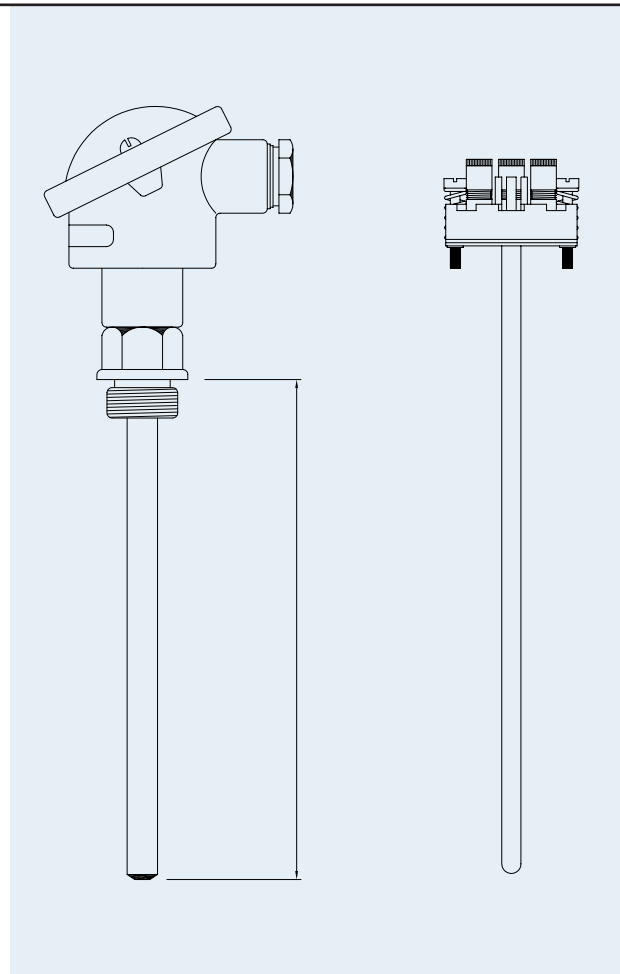
Ceramic support, optional transmitter 4...20 mA.

**APPLICATIONS**

Kilns, furnaces, burners, galvanizing baths, heat treatment baths and all high temperature thermal processes.

**SPECIFICATIONS**

Process connexion	BSP, NPT, METRIC, ETC...
Sensor tube diameter	6 or 8mm
Sensing element	K, J, N, E
Connexions	2, 4 wires
Working temperature range	-200°C to +1200°C (depending on selected thermocouple)



## 2 THERMOCOUPLES > 2.1 GENERAL USE

2.1.3

### TGB

#### CHARACTERISTICS

General use thermocouple.  
 Sheath material: AISI-316, AISI-310, AISI-446, Alloy 600 or Alloy 800 depending on type of selected thermocouple.  
 This model can be used in the process directly or through thermowell.  
 With cooling neck for insulation pipe of high temperature installations.  
 Cooling neck length 100-145mm under connexion head.  
 Coupling under cooling neck BSP, NPT, METRIC, etc...

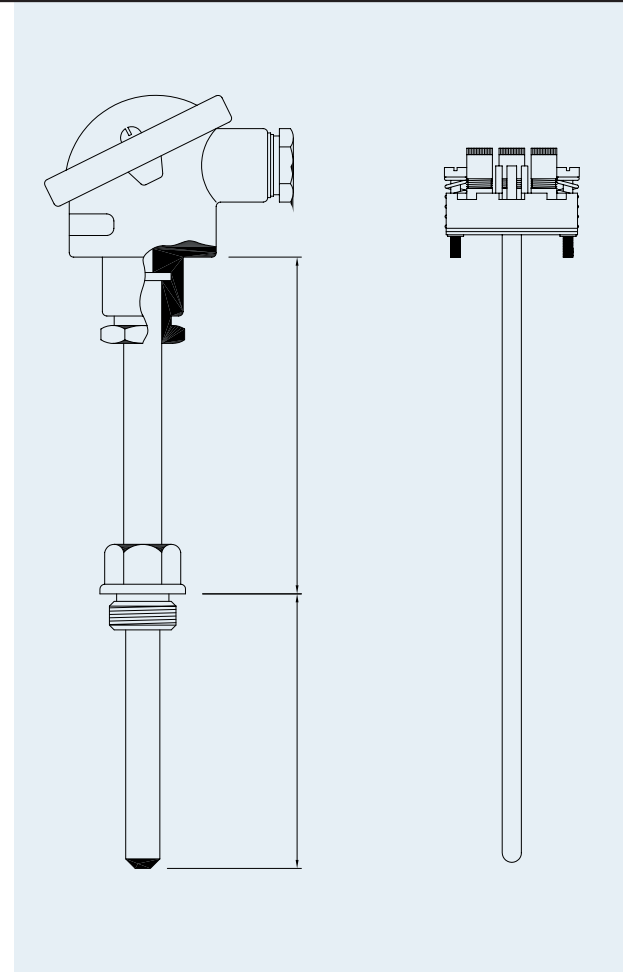
Ceramic support, optional transmitter 4...20 mA.

#### APPLICATIONS

Kilns, furnaces, burners, galvanizing baths, heat treatment baths and all high temperature thermal processes.

#### SPECIFICATIONS

Process connexion	BSP, NPT, METRIC, ETC...
Sensor tube diameter	6 or 8mm
Sensing element	K, J, N, E
Connexions	2, 4 wires
Working temperature range	-200°C to +1200°C (depending on selected thermocouple)



## 2 THERMOCOUPLES &gt; 2.1 GENERAL USE

2.1.4

## TUM

**CHARACTERISTICS**

General use thermocouple.  
 Sheath material: AISI-316, AISI-310, AISI-446, Alloy 600 or Alloy 800 depending on type of selected thermocouple.  
 This model is suitable for all our thermocouples and is designed for various mounting configurations with load springs.

Thermowell connexion accessories:

- Nipple
- Three-part screw

(Accessories conform to ATEX standard optional).

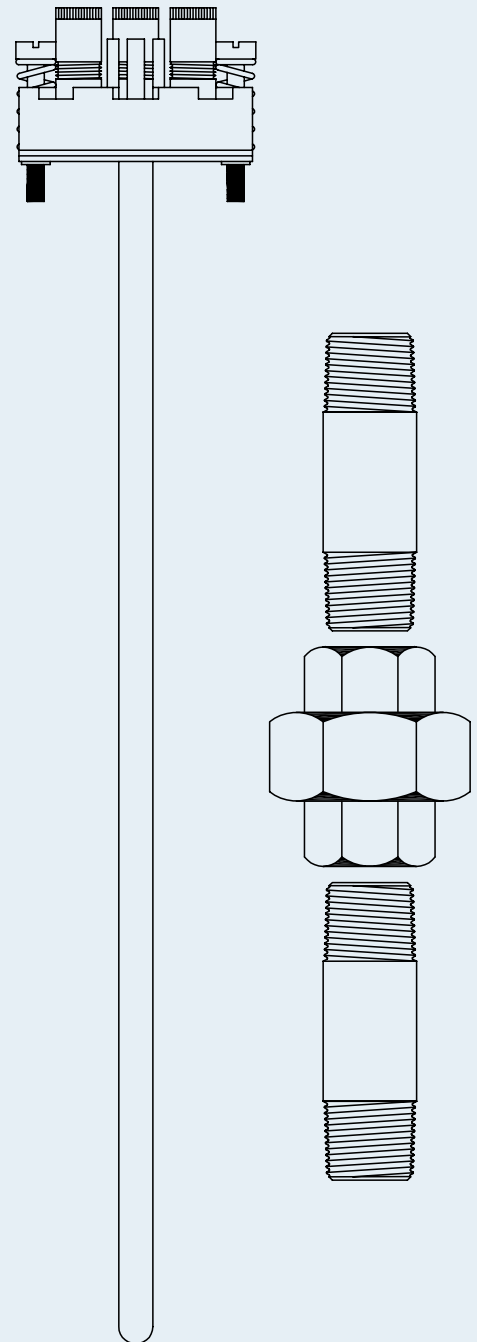
Ceramic support, optional transmitter 4...20 mA.

**APPLICATIONS**

Kilns, furnaces, burners, galvanizing baths, heat treatment baths and all high temperature thermal processes.

**SPECIFICATIONS**

Sensor tube diameter	3, 4, 5, 6 or 8mm
Sensing element	K, J, N, E
Connexions	2, 4 wires
Working temperature range	-200°C to +1200°C (depending on selected thermocouple)



## 2 THERMOCOUPLES &gt; 2.1 GENERAL USE

2.1.5

## TSA

**CHARACTERISTICS**

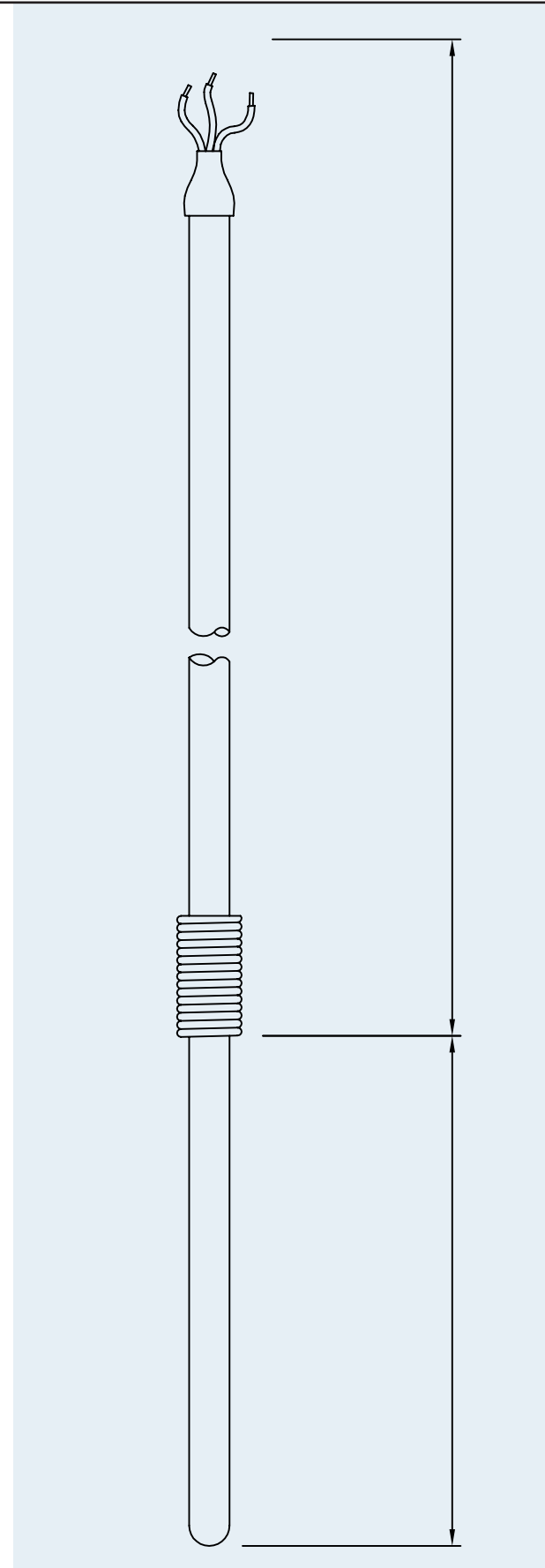
General use sensor.  
 Output cable 2, 4, or 6 wires in PFA, PVC, FI+FI+MESH, or silicon.  
 Sheath Ø3, 4, 5, 6 or 8mm in AISI-316.  
 Anti-vibration protector spring.  
 Connexion to the process is adjustable using compression fitting,  
 or free insertion without coupling.

**APPLICATIONS**

Kilns, furnaces, burners, galvanizing baths, heat treatment baths  
 and all high temperature thermal processes.

**SPECIFICATIONS**

Sensor tube diameter	3, 4, 5, 6 or 8mm
Sensing element	K, J, N, E
Connexions	2, 4 wires
Working temperature range	-200°C to +1200°C (depending on selected thermocouple)



## 2 THERMOCOUPLES &gt; 2.1 GENERAL USE

2.1.6

## TSN

**CHARACTERISTICS**

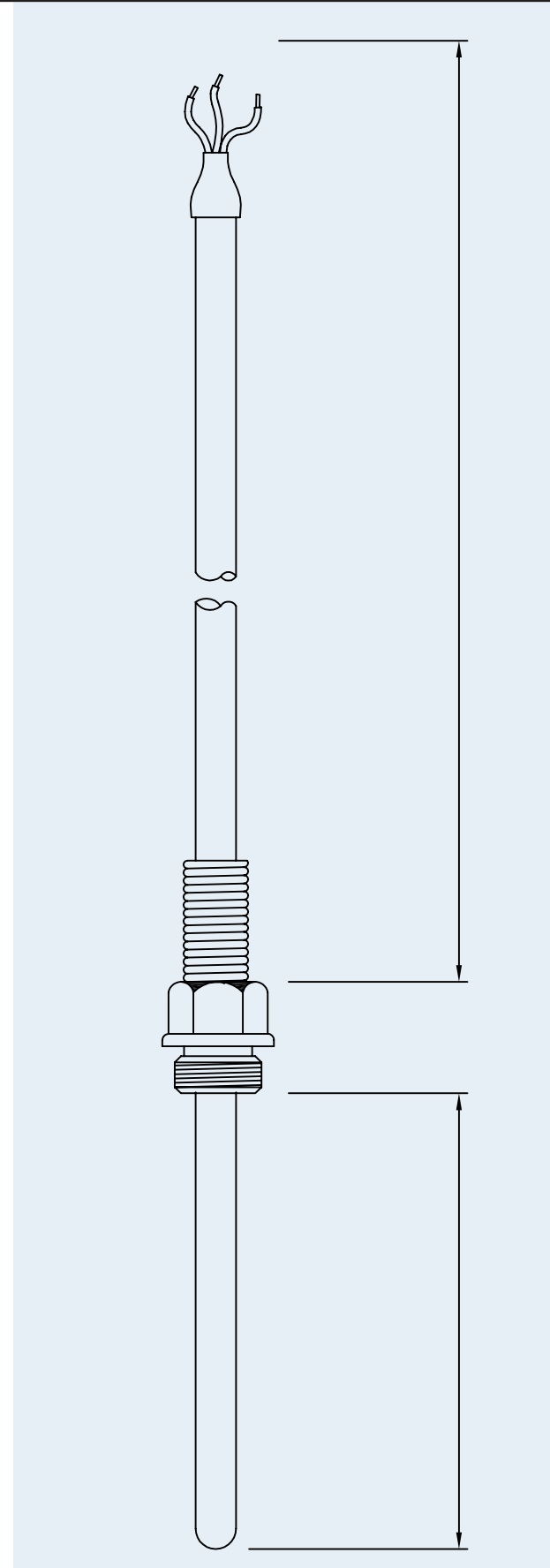
General use sensor.  
 Output cable 2, 4, or 6 wires in PFA, PVC, FI+FI+MESH, or silicon.  
 Sheath Ø3, 4, 5, 6 or 8mm in AISI-316.  
 Anti-vibration protector spring.  
 Connexion under spring BSP, NPT, METRIC, ETC...

**APPLICATIONS**

Kilns, furnaces, burners, galvanizing baths, heat treatment baths  
 and all high temperature thermal processes.

**SPECIFICATIONS**

Sensor tube diameter	3, 4, 5, 6 or 8mm
Sensing element	K, J, N, E
Connexions	2, 4 wires
Working temperature range	-200°C to +1200°C (depending on selected thermocouple)



## 2 THERMOCOUPLES > 2.2 HIGH TEMPERATURES USE

2.2.1

TK

### CHARACTERISTICS

These thermocouples are used in measuring high temperatures. Available in type K with a protective alumina sheath of type 610 ( $\text{Al}_2\text{O}_3$  60%), or type R or S with an alumina sheath of type 710 ( $\text{Al}_2\text{O}_3$  99,7%). Stainless steel long neck joined to connexion head.

Connexion to the process can be adjustable through compression fitting, free insertion without coupling, thermowell, or mounting flange.

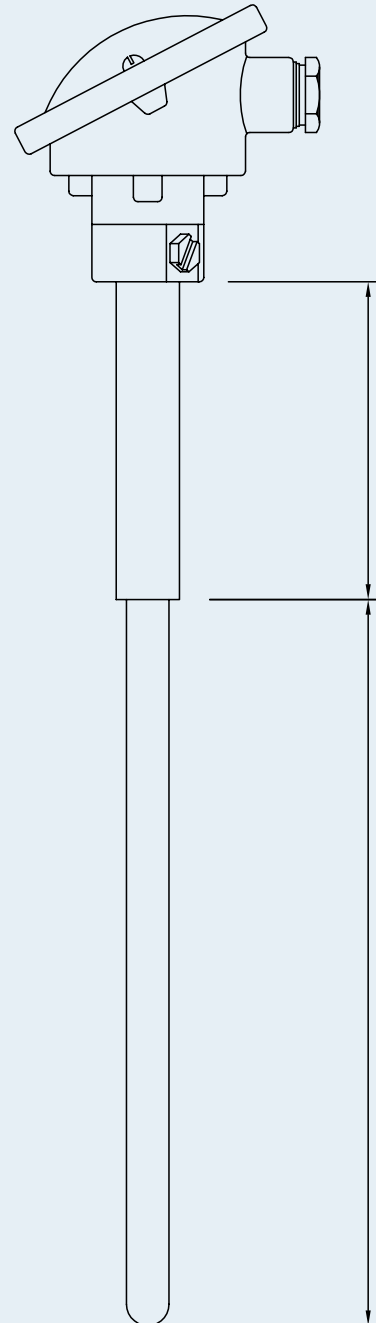
Ceramic support, optional transmitter 4...20 mA.

### APPLICATIONS

Kilns, furnaces, burners, galvanizing baths, heat treatment baths and all high temperature thermal processes.

### SPECIFICATIONS

Process connexion	BSP, NPT, METRIC, ETC...
Sensor tube diameter	8, 10, 12, 15, 17, 20, 24mm
Ceramic sheath	KER610 and KER710 types
Sensing element	K, S, R
Connexions	2, 4 wires
Working temperature range	-200°C to +1400°C (depending on selected thermocouple)



## 2 THERMOCOUPLES &gt; 2.2 HIGH TEMPERATURES USE

2.2.2

TM

**CHARACTERISTICS**

General use thermocouple for a maximum temperature of 1100°C.  
 Sheath material: AISI-316, AISI-310, AISI-446, Alloy 600 or Alloy 800 depending on type of selected thermocouple.  
 Connexion to the process can be adjustable through compression fitting, free insertion without coupling, thermowell, or mounting flange

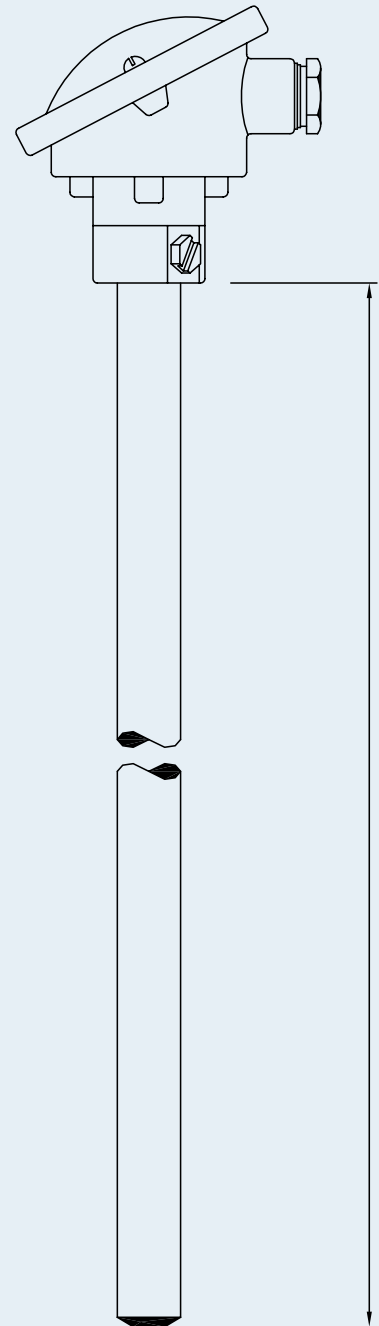
Ceramic support, optional transmitter 4...20 mA.

**APPLICATIONS**

Kilns, furnaces, burners, galvanizing baths, heat treatment baths and all high temperature thermal processes.

**SPECIFICATIONS**

Process connexion	BSP, NPT, METRIC, etc..
Sensor tube diameter	12.7, 13.7, 15.9, 17.1, 21.3, 27.9mm
Sensing element	K, S, R
Connexions	2, 4 wires
Working temperature range	-200°C to +1200°C (depending on selected thermocouple)



**2 THERMOCOUPLES > 2.3 ATEX USE****2.3****ATEX USE**

The thermocouples were designed and developed to be used in industries with explosion hazard of categories 1 and 2 for gases and powders, meeting the requirements of the 94/9/EC directive (ATEX).

They reach an advanced ATEX certification, not only because of their electronic, but also because of their probe, and that's why they have to be considered as more than "simple elements".

**APPLICATIONS**

- Industries
- Laboratories
- Food sector
- Sanitary sector

**2 THERMOCOUPLES****2.1 GENERAL USE**

## 2.1.1 TA

## 2.1.2 TGN

## 2.1.3 TGB

## 2.1.4 TUM

## 2.1.5 TSA

## 2.1.6 TSN

**2.2 HIGH TEMPERATURES USE**

## 2.2.1 TK

## 2.2.2 TM



## 3 THREADED THERMOWELLS &gt; 3.1 GENERAL USE

3.1.1

## TA-BHW-1

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum, Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Male thread BSP, NPT, METRIC, etc...

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

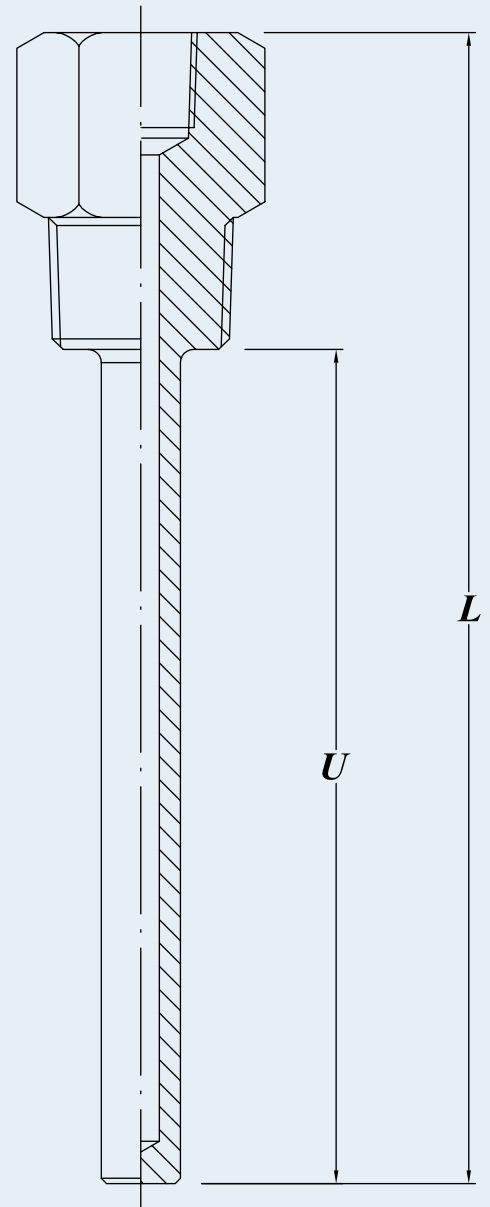
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## THREADED THERMOWELLS &gt; 3.1 GENERAL USE

3.1.2

## TA-BHW-2

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum, Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Male thread BSP, NPT, METRIC, etc...

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

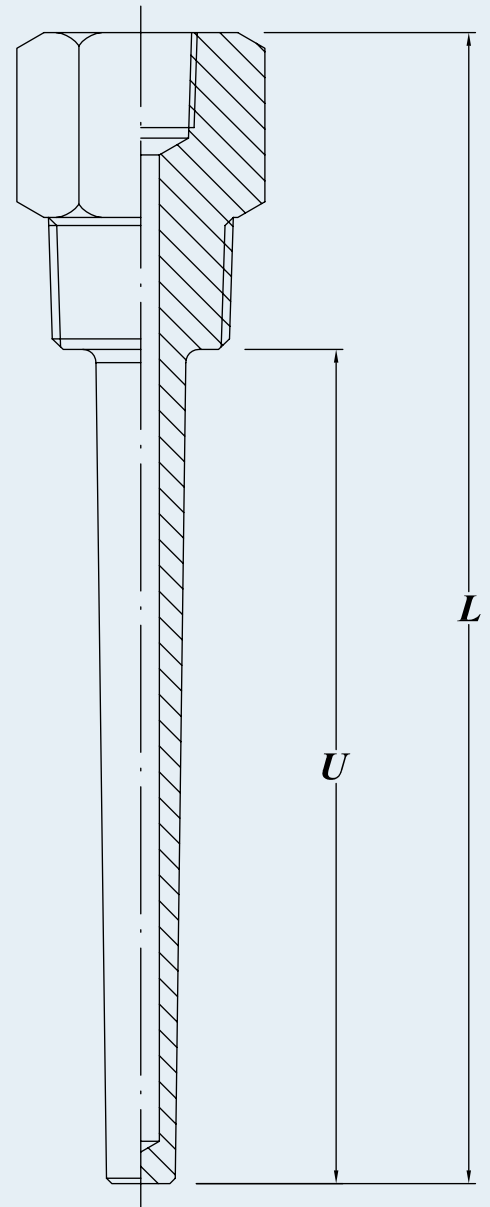
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 3 THREADED THERMOWELLS &gt; 3.1 GENERAL USE

3.1.3

## TA-BHW-3

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum, Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Male thread BSP, NPT, METRIC, etc...

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

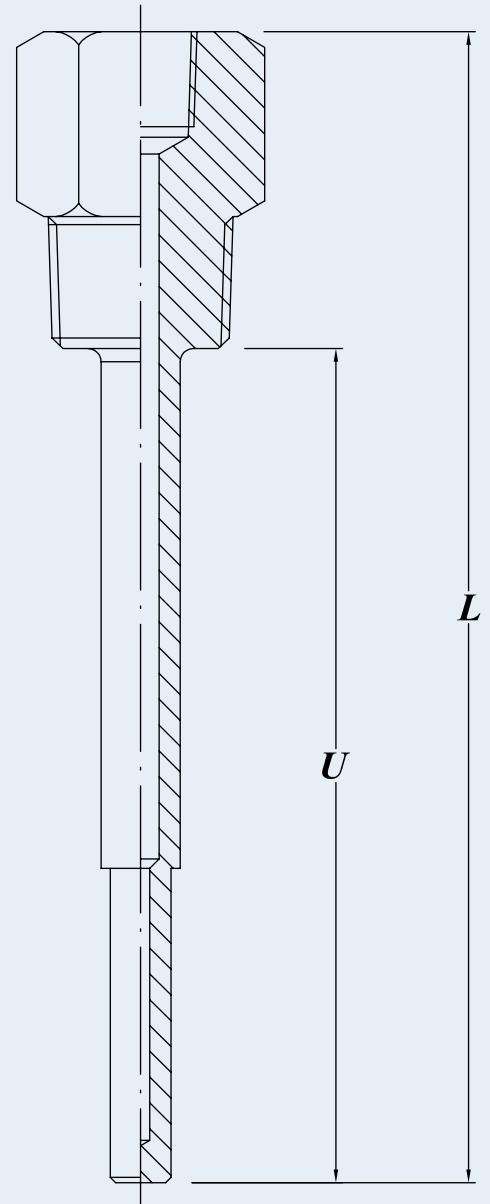
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 3 THREADED THERMOWELLS &gt; 3.1 GENERAL USE

3.1.4

## TA-BHW-4

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum, Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Male thread BSP, NPT, METRIC, etc...

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

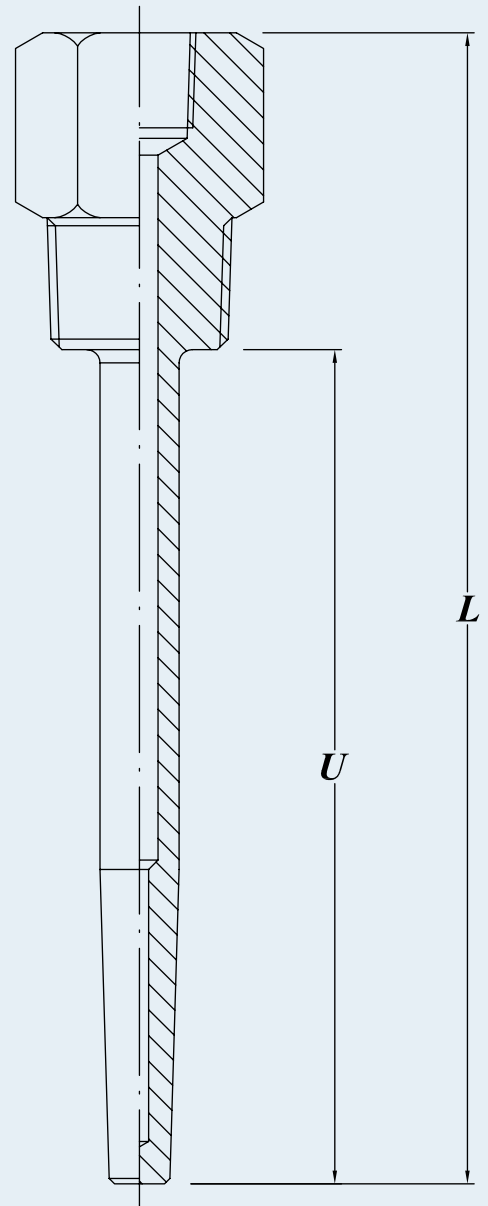
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 3 THREADED THERMOWELLS &gt; 3.2 USE FOR THERMOMETERS

## 3.2.1

## TA-PHW

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, Kanthal®, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201 , etc...
- Other materials: Titanium, Tantalum, Zirconium, Aluminium , Brass, Carbon steels, technical plastics, etc...
- Special Coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Male thread BSP, NPT, METRIC, etc...

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard tube: Ø10x1 mm, Ø12x1 mm.
- Others.

**U insertion length (mm)**

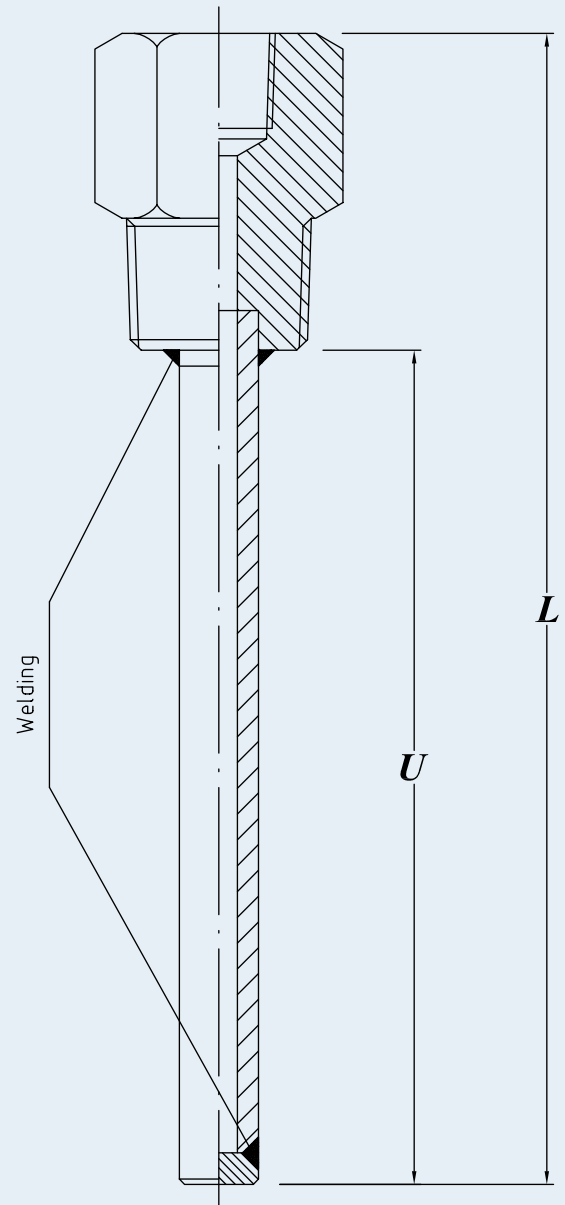
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.1 GENERAL USE

4.1.1

## TA-BRS-1

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

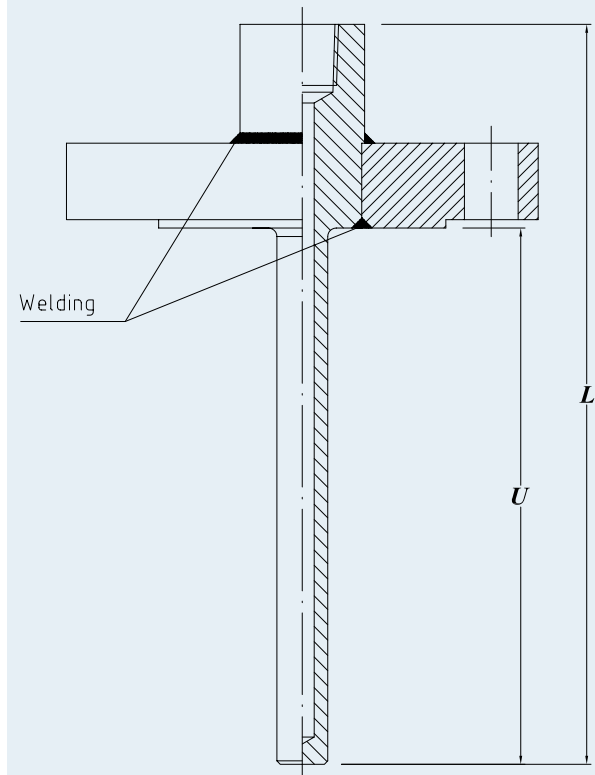
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.1 GENERAL USE

4.1.2

## TA-BRS-2

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

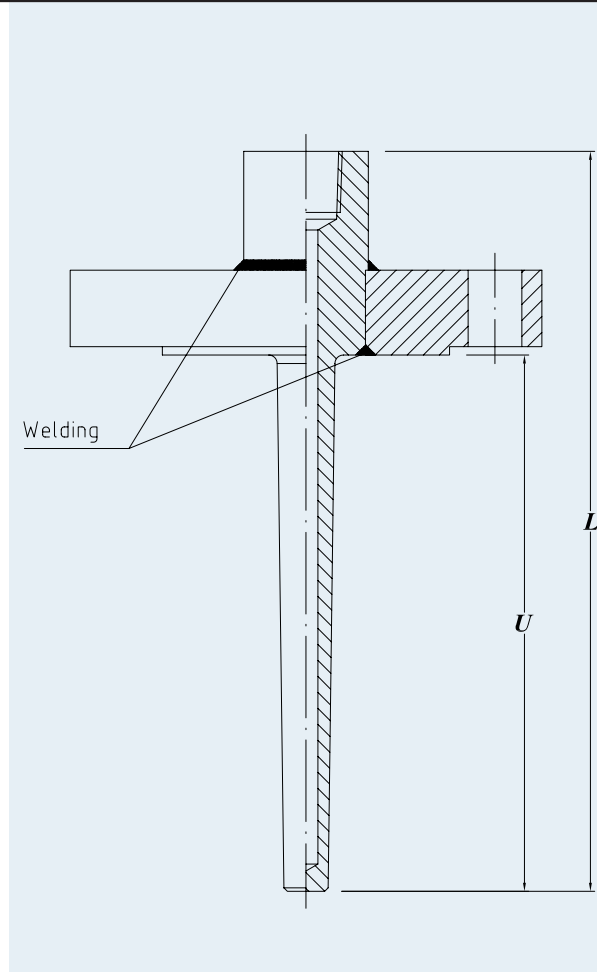
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.1 GENERAL USE

4.1.3

## TA-BRS-3

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

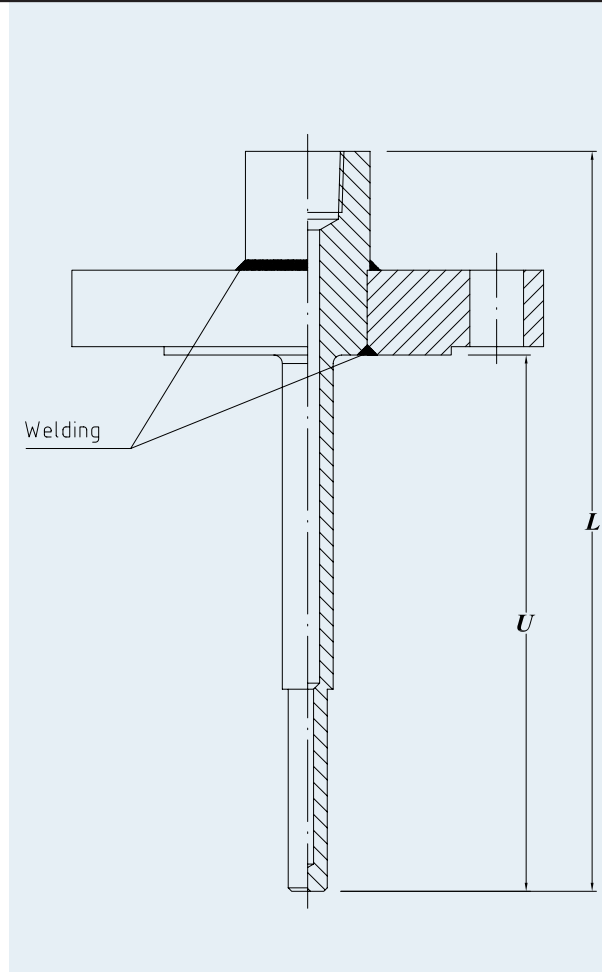
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.1 GENERAL USE

4.1.4

## TA-BRS-4

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

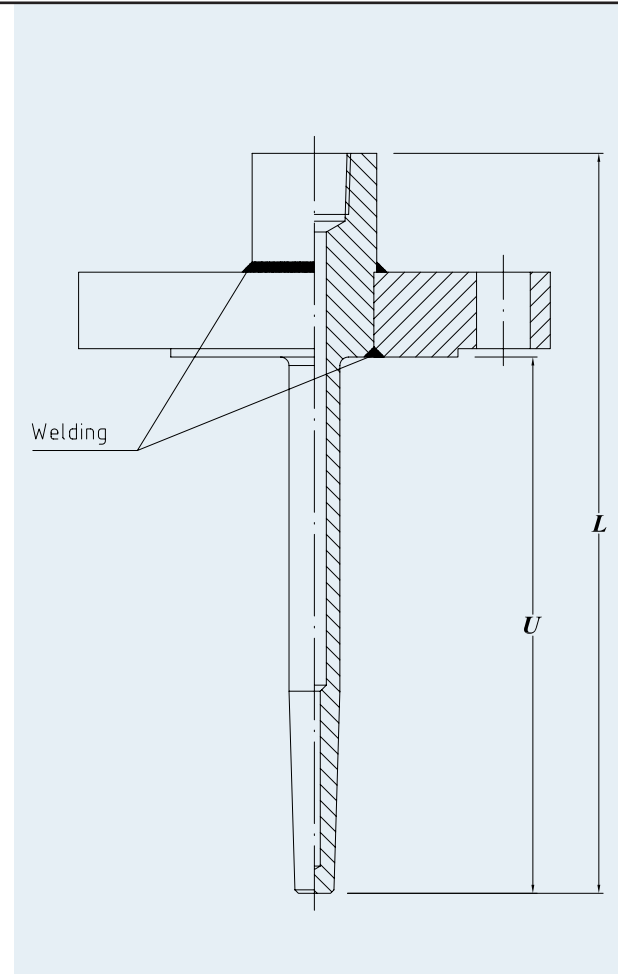
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.1 GENERAL USE

4.1.5

## TA-PRS

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, Kanthal®, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard tube:  $\varnothing 10 \times 1$  mm,  $\varnothing 12 \times 1$  mm.
- Others.

**U insertion length (mm)**

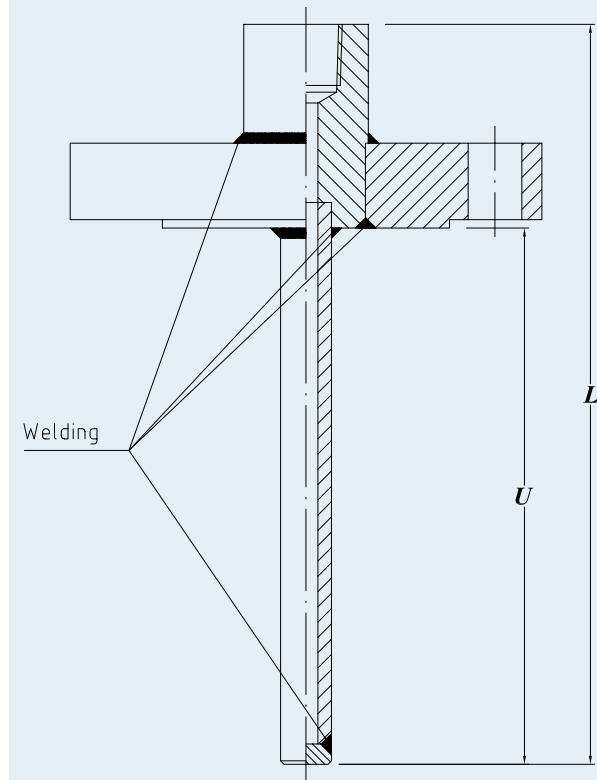
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.2 EXTREME CONDITIONS

4.2.1

## TA-BRU-1

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- $\beta$  Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard:  $\varnothing 7$  mm,  $\varnothing 9$  mm,  $\varnothing 11$  mm,  $\varnothing 12.2$  mm.
- Others.

**U insertion length (mm)**

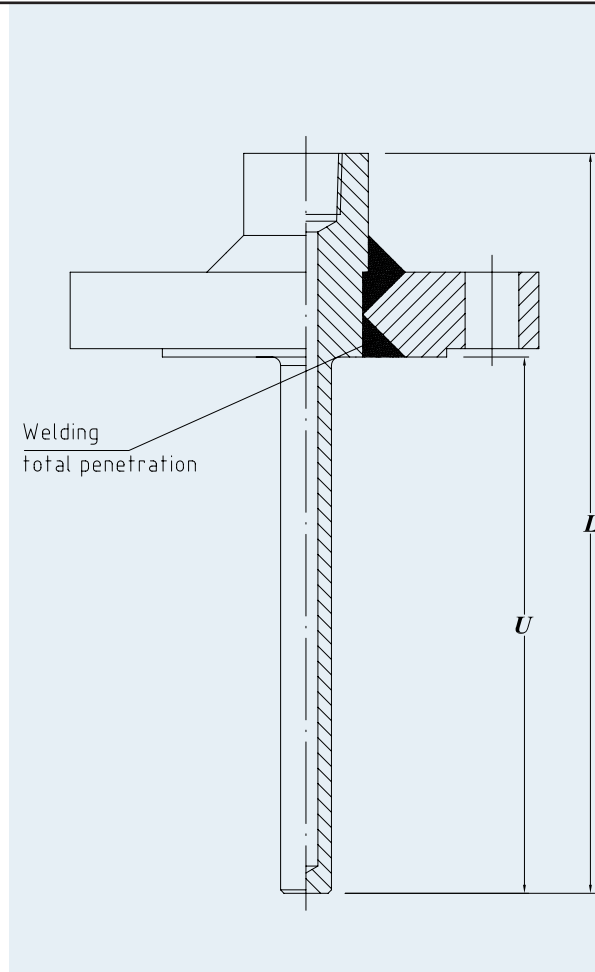
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.2 EXTREME CONDITIONS

4.2.2

## TA-BRU-2

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201, etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium, Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

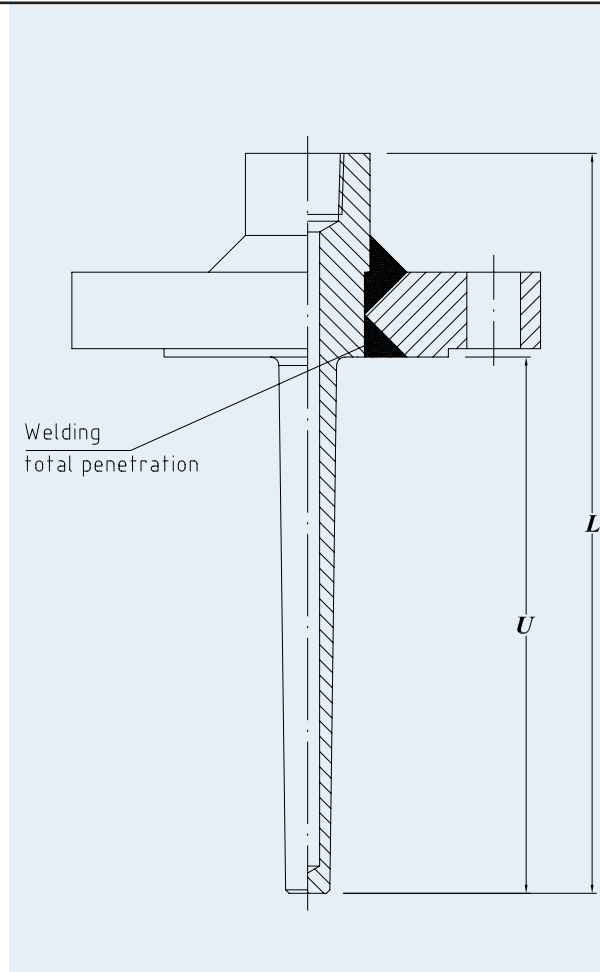
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.2 EXTREME CONDITIONS

4.2.3

## TA-BRU-3

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201 , etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium , Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

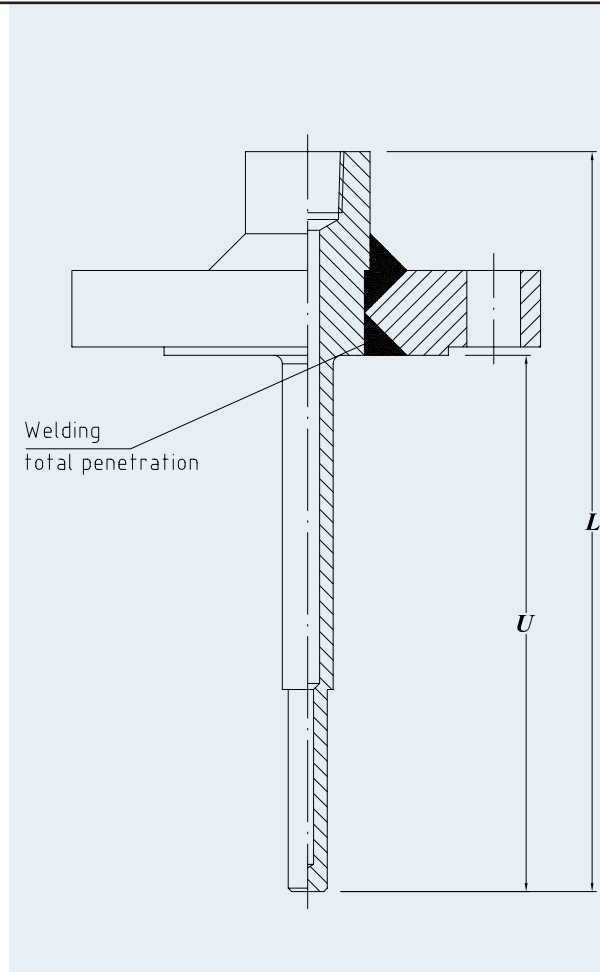
- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.



## 4 FLANGED THERMOWELLS &gt; 4.2 EXTREME CONDITIONS

4.2.4

## TA-BRU-4

**Material**

- Stainless steels in all its forms: AISI-316, AISI-304, AISI-321, AISI-904-L, AISI-318, etc...
- Refractory steels: AISI-310 AISI-446, etc...
- Resistance heating Alloys: Alloy 600, Alloy 601, Alloy 625, Alloy 800, Alloy 825, etc...
- Resistance corrosion Alloys: Alloy C-276, Alloy C-22, Alloy C-4, Alloy 400, Alloy K-500, Alloy 200, Alloy 201 , etc...
- Other materials: Titanium, Tantalum (sheath), Zirconium, Aluminium , Brass, Carbon steels, technical plastics, etc...
- Special coverings: chromed, Teflon®, stellite, Halar®, Rubired®, etc...

**Connexion to process**

- Flange
- Nominal Diameter: DIN or ASA
- Rating: DIN or ASA

**Connexion to instrument**

- Female thread BSP, NPT, METRIC, etc...

**Internal diameter**

- Standard: Ø7 mm, Ø9 mm, Ø11 mm, Ø12.2 mm.
- Others.

**U insertion length (mm)**

- Standard: 50, 100, 150, 200, 250, 300, 350, 400, 500.
- Others.

**Maximum process temperature**

- Depending on material properties and design.

**Maximal process pressure**

- Depending on material properties and design.

