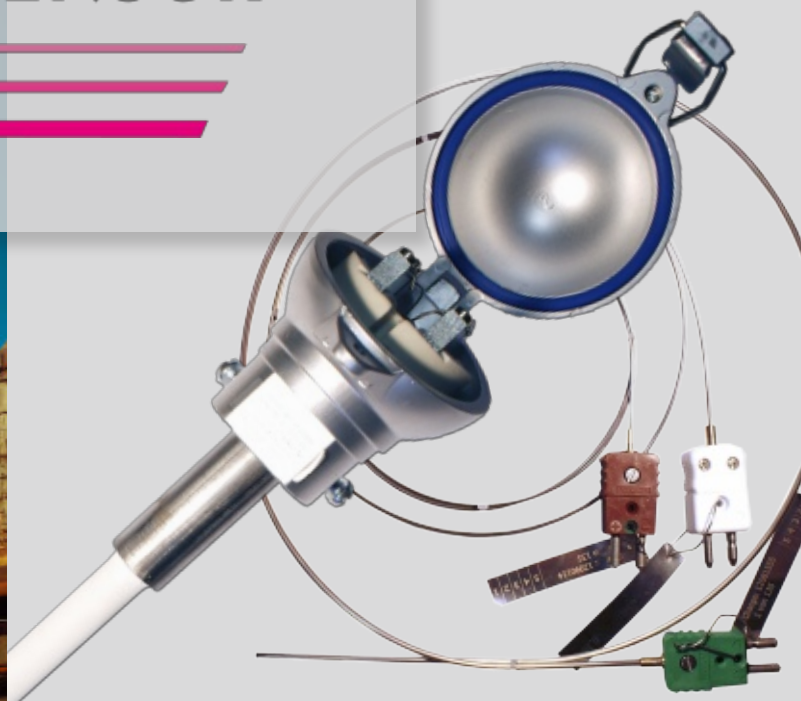




The sensor
makes the difference!









Innovative Temperature Measurement in Heat Treatment Processes



Straight Thermocouple with metallic protection tube

Thermocouple:

according to
DIN EN 60584

	<input type="checkbox"/> Type K (NiCr-Ni)		<input type="checkbox"/> Type J (Fe-CuNi)
	<input type="checkbox"/> Type N (NiCrSi-NiSi)		<input type="checkbox"/> Type S (Pt10Rh-Pt)
	<input type="checkbox"/> Type R (Pt13Rh-Pt)		<input type="checkbox"/> Type B (Pt30Rh-Pt6Rh)
<input type="checkbox"/> others _____			

Number of TC's:

single double triple

Wire Strength:

0.35 mm 0.5 mm 1.5 mm
 3.0 mm others _____

Connection Head:

A AUS AUZ AUSH AUZH
 B BUS BUZ BUSH BUZH
 MA others _____

Transmitter:

without transmitter
 with transmitter
please specify _____

Flange:

without
 with
please specify DN/PN _____

Inner Protection Tube:

ceramic C610 ceramic C799
 without

Protection Tube:

steel mat.-no. 1.0305 mat.-no. 1.4571
heat resistant steel
 mat.-no. 1.4749 mat.-no. 1.4762
 mat.-no. 1.4841 mat.-no. 2.4816

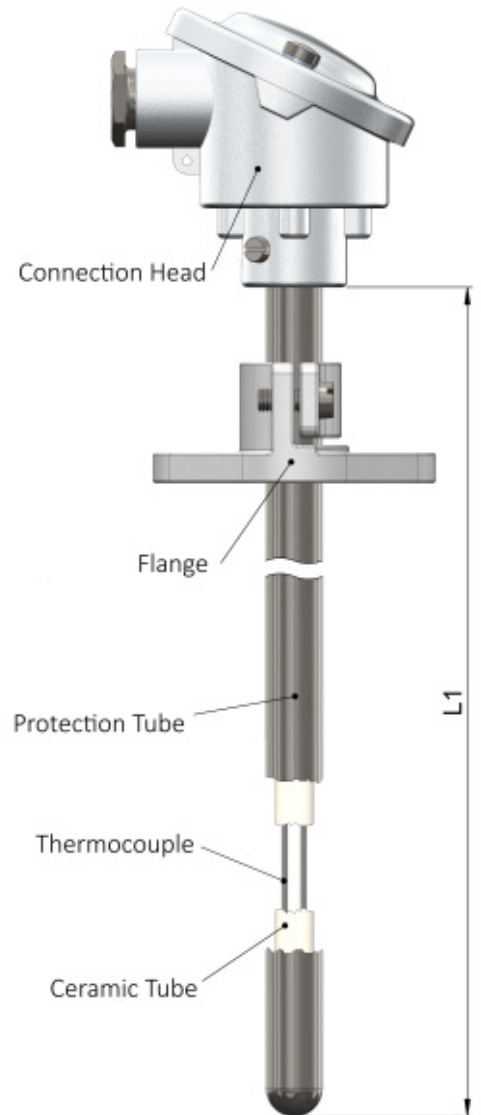
Protection Tube Dim.:

15.0 x 2.0 mm
 22.0 x 2.0 mm
special dimensions on request

Nominal Length "L1": please specify _____ mm

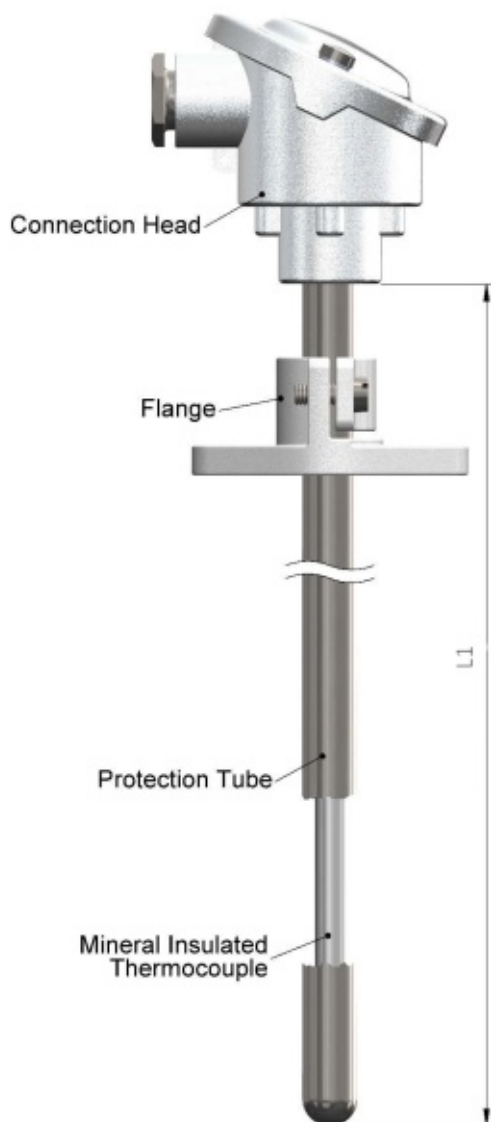
Accessories:

gas-tight threaded sleeve



Straight Thermocouple

with metallic protection tube and mineral insulated measuring insert



Thermocouple:

according to
DIN EN 60584



Type K (NiCr-Ni)



Type J (Fe-CuNi)



Type N (NiCrSi-NiSi) others _____

Number of TC's:

single

double

triple

Measuring Insert:

3.0 mm

6.0 mm

8.0 mm

others _____

Connection Head:

A

AUS

AUZ

AUSH

AUZH

B

BUS

BUZ

BUSH

BUZH

MA

others _____

Protection Tube:

steel

mat.-no. 1.0305

mat.-no. 1.4571

heat resistant steel

mat.-no. 1.4749

mat.-no. 1.4762

mat.-no. 1.4841

mat.-no. 2.4816

Protection Tube Dim.:

15.0 x 2.0 mm

22.0 x 2.0 mm

special dimensions on request

Inner Protection Tube:

ceramic C610

ceramic C799

without

Nominal Length "L1":

please specify _____ mm

Accessories:

gas-tight threaded sleeve







flange

please specify DN/PN _____

Straight Thermocouple with ceramic protection tube

Thermocouple:

according to
DIN EN 60584

	<input type="checkbox"/> Type K (NiCr-Ni)		<input type="checkbox"/> Type J (Fe-CuNi)
	<input type="checkbox"/> Type N (NiCrSi-NiSi)		<input type="checkbox"/> Type S (Pt10Rh-Pt)
	<input type="checkbox"/> Type R (Pt13Rh-Pt)		<input type="checkbox"/> Type B (Pt30Rh-Pt6Rh)
<input type="checkbox"/> others _____			

Number of TC's:

single double triple

Wire Strength:

0.35 mm 0.5 mm 1.5 mm
 3.0 mm others _____

Connection Head:

<input type="checkbox"/> A	<input type="checkbox"/> AUS	<input type="checkbox"/> AUZ	<input type="checkbox"/> AUSH	<input type="checkbox"/> AUZH
<input type="checkbox"/> B	<input type="checkbox"/> BUS	<input type="checkbox"/> BUZ	<input type="checkbox"/> BUSH	<input type="checkbox"/> BUZH
<input type="checkbox"/> MA	<input type="checkbox"/> others _____			

Flange:

without
 with
please specify DN/PN _____

Supporting Tube "L2":

steel mat.-no. 1.0305 mat.-no. 1.4571
heat resistant steel
 mat.-no. 1.4749 mat.-no. 1.4762
 mat.-no. 1.4841 mat.-no. 2.4816
please specify _____ mm

Inner Protection Tube:

ceramic C610 ceramic C799
 without

Protection Tube:

ceramic C530 ceramic C610
 ceramic C799

Protection Tube Dim.:

<input type="checkbox"/> 10.0 x 1.5 mm	<input type="checkbox"/> 10.0 x 2.0 mm
<input type="checkbox"/> 15.0 x 2.0 mm	<input type="checkbox"/> 15.0 x 2.5 mm
<input type="checkbox"/> 24.0 x 2.0 mm	<input type="checkbox"/> 24.0 x 3.0 mm

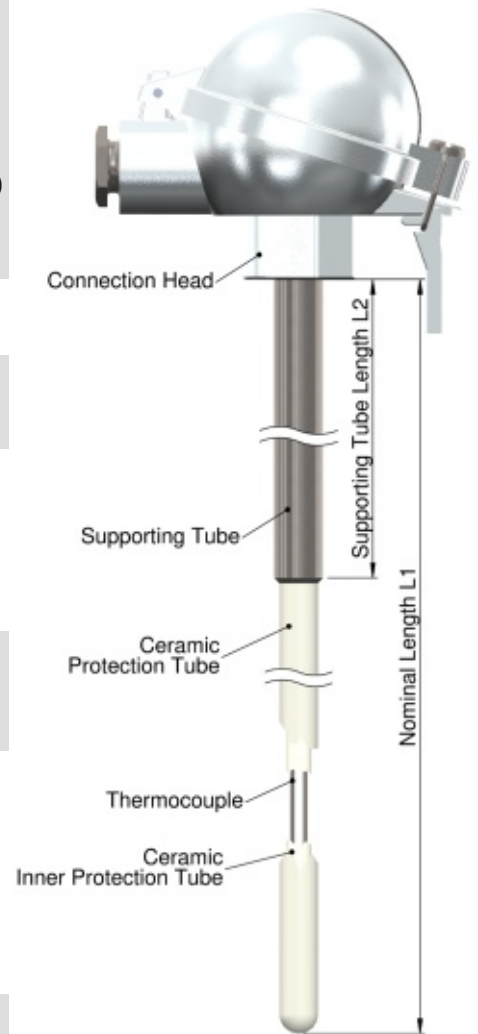
special dimensions on request

Nominal Length "L1":

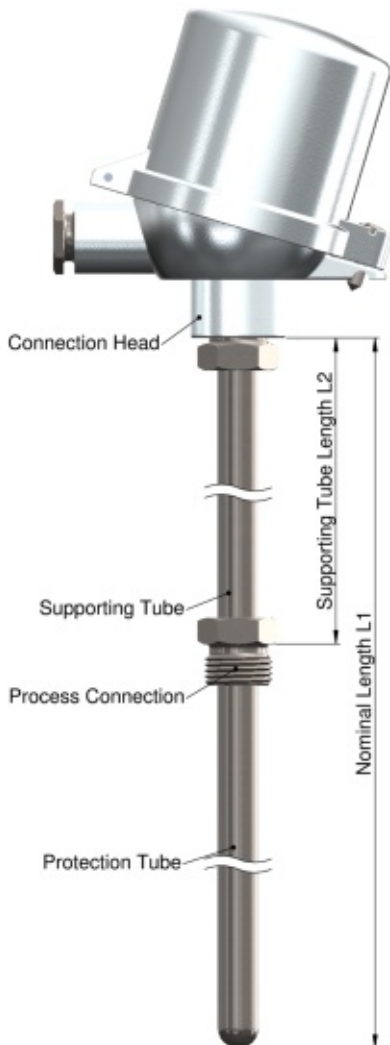
please specify _____ mm

Accessories:

gas-tight threaded sleeve
 vacuum flange KF
 measuring insert vacuum-sealed



Mineral Insulated Thermocouple screw-in Thermocouple



Thermocouple:

according to
DIN EN 60584



Type K (NiCr-Ni)



Type J (Fe-CuNi)



Type N (NiCrSi-NiSi) others _____

Number of TC's:

single

double

triple

Measuring Insert:

1.5 mm

1.6 mm

2.0 mm

3.0 mm

3.2 mm

4.8 mm

6.0 mm

8.0 mm

others _____

Connection Head:

A

AUS

AUZ

AUSH

AUZH

B

BUS

BUZ

BUSH

BUZH

MA

others _____

Transmitter:

without transmitter

with transmitter

please specify _____

Probe Diameter:

3.0 mm

3.2 mm

4.8 mm

6.0 mm

6.4 mm

8.0 mm

others _____

Supporting Tube "L2":

steel mat.-no. 1.0305

mat.-no. 1.4571

please specify _____ mm

Protection Tube:

without

with

steel mat.-no. 1.0305

mat.-no. 1.4571

heat resistant steel

mat.-no. 1.4749

mat.-no. 1.4762

mat.-no. 1.4841

mat.-no. 2.4816

protective tube dimensions:

9.0 x 1.0 mm

11.0 x 1.0 mm

11.0 x 2.0 mm

15.0 x 2.0 mm

22.0 x 2.0 mm

others _____

Nominal Length "L1":

please specify _____ mm

Termination:

ceramic pedestal with sheath terminals

Process Connection:

please specify thread type/length _____

head connection, probe length "A" _____

neck connection, please specify nominal length
"L1" and supporting tube "L2"

Mineral Insulated Thermocouple bendable execution

Thermocouple:

according to
DIN EN 60584



Type K (NiCr-Ni)



Type J (Fe-CuNi)



Type T (Cu-CuNi)



Type N (NiCrSi-NiSi)

others _____

Number of TC's:

single double

Hot Junction:

insulated not insulated exposed

Probe Diameter:

0.15 mm (only Type K) 0.25 mm (only Type K)
 0.5 mm (only Type K, J and N) 1.0 mm
 1.5 mm 2.0 mm 3.0 mm
 4.8 mm 6.0 mm 6.4 mm
 others _____
 swaged (only possible for certain diameters)
 \varnothing D1 _____ mm \varnothing D2 _____ mm
 L _____ mm

Probe Length "A":

please specify _____ mm

Sheath Material:

standard Inconel 600 (mat.-no. 2.4816)
 others _____

Transition Sleeve:

standard stainless steel; diameter x length: 4.0 x 30.0 mm
 others _____

Lead Wire:

flexible thermocouple wire, individually and overall insulated with

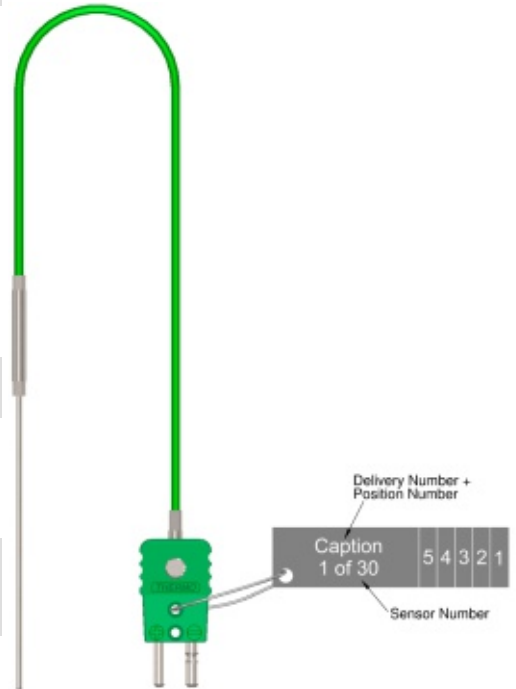
- silicone, \varnothing approx. 3.8 mm (-50 °C - 180 °C)
- teflon, \varnothing approx. 2.35 mm x 1.45 mm (-100 °C - 205 °C, for a short time up to 230 °C)
- fiberglass, \varnothing approx. 2,1 mm x 1,3 mm (400 °C, for a short time up to 500 °C)
- others _____

Wire Length "B":

please specify _____ mm

Termination:

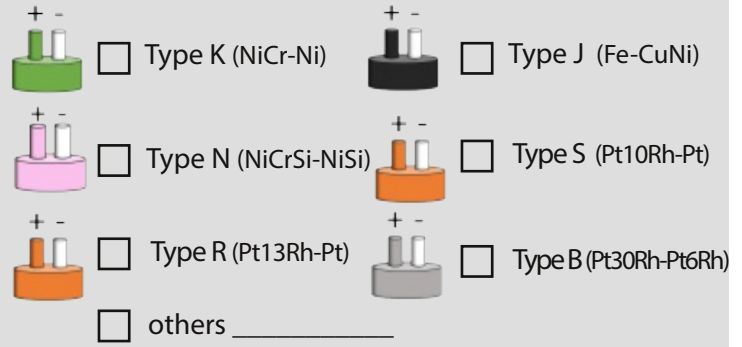
standard plug standard jack
 miniature plug miniature jack
 micro plug micro jack
 ht standard plug ht standard jack
 ht miniature plug ht miniature jack
 Lemo plug Lemo jack
 size 0 (max. probe diameter 3.2 mm)
 size 1 (max. probe diameter 6.0 mm)
 size 2 (max. probe diameter 6.4 mm)
 bare ends others _____



Angled Thermocouple

Thermocouple:

according to
DIN EN 60584



Number of TC's: single double triple

Wire Strength: 0.35 mm 0.5 mm 1.5 mm
 3.0 mm others _____

Connection Head: A AUS AUZ AUSH AUZH
 B BUS BUZ BUSH BUZH
 MA others _____

Execution: screwed bent welded

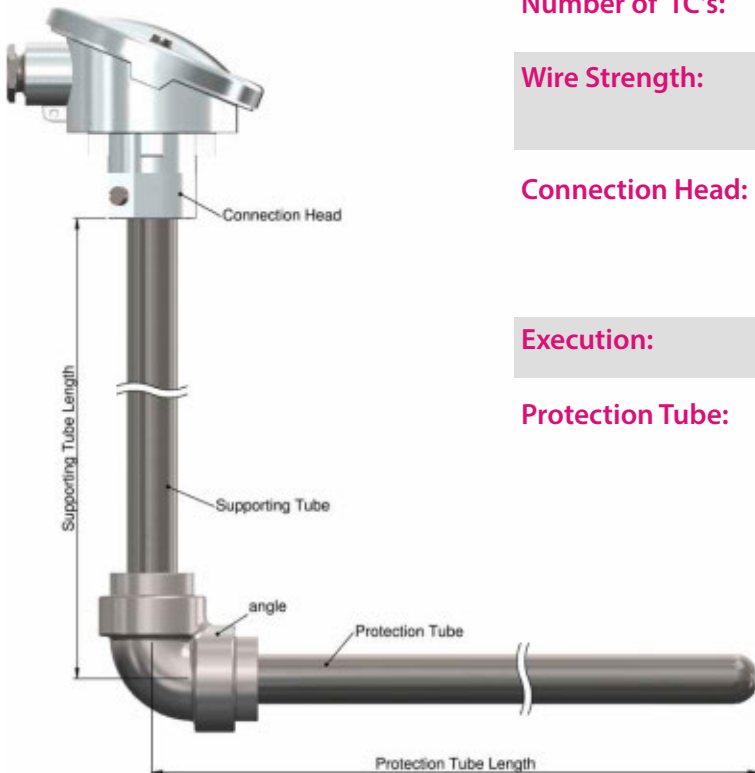
Protection Tube: steel enameled (20.0 x 2.0 mm)
 pure iron (22.0 x 5.0 mm)
 SL25 (30.0 x 9.0 mm, swaged to 24.0 mm)
 graphite (40.0 x 11.0 mm)
 titan (18.0 x 1.5 mm)
 cast iron (30.0 x 6.0 mm)
 1.0305 (15.0/22.0 x 2.0 mm)
 1.4571 (15.0/22.0 x 2.0 mm)
 1.4762 (15.0/22.0 x 2.0 mm)
 1.4841 (15.0/22.0 x 2.0 mm)
 others _____

Protection Tube Length: 500.0 mm 710.0 mm 1000.0 mm
 special dimensions on request

Supporting Tube: without
 steel M.-No. 1.4571 M.-No. 1.0305
 heat resistant steel
 M.-No. 1.4762 M.-No. 1.4841

Supporting Tube Length: please specify _____ mm

Inner Protection Tube: Ceramic C610 Ceramic C799
 without





Thermo Sensor GmbH

customer oriented • innovative • flexible

Please contact us. We will be happy to assist you!

For more than 20 years, our name has stood for high-quality products for all areas of temperature, measurement and control technology. At our location in Werne (NRW) we develop and produce temperature sensors in standard, special and explosion-proof designs as well as numerous accessories for temperature measurement, which come into operation worldwide on all continents.

Our wide product range, our extensive stock of raw parts and our efficient organisational structure have a great influence on our flexibility: short delivery times and demand-oriented, customer-specific production are not contradictory for us. A delivery within 5 days is not a rarity - it is our standard!

Since 1996 Thermo Sensor has been continuously certified according to the respective valid quality management standard; currently according to ISO 9001:2015.

State-of-the-art manufacturing processes, combined with the specialist knowledge of our employees, are the cornerstone for a product quality that meets the highest demands. No matter how complex your measuring task seems - make your problem our challenge!

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