



**Thermocouple temperature sensor
with aluminium industrial connection head
stainless steel angled or lined
inconel with or without fitting**

Type TBC K and TBCR K

**TBC K – TBCD K – TBC KI – TBCD KI
TBCR K – TBCRD K – TBCR KI – TBCRD KI**

■ General features

- Thermocouple types T, J, K and N
- Measuring range from **-40°C to +1000°C**
- Mounting with stainless steel contact tip 316 L or inconel 600
- Smooth or screwing mounting

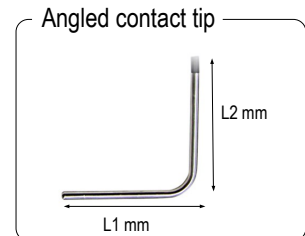
■ Technical features

Working temperature.....For **TBCK series**
from -40°C to +350°C for Tc T
from -40°C to +400°C for J, K et N

For **TBCKI series**
from -40°C to +350°C for Tc T
from -40°C to +750°C for Tc J
from -40°C to +1000°C for Tc K and Tc N

Recommended temperature.....According to contact tip Ø in inconel 600

from 0.5 to 1 mm Ø	: up to 300°C
from 1.5 to 2 mm Ø	: up to 750°C
3 mm Ø	: up to 900°C
from 4.5 to 8 mm Ø	: up to 1000°C



Accuracy for class 1.....See "Tolerances" table

Mounting of welding.....Insulated or to earth hot welding
Single pair or 2x2 wires multipair mounting.

Contact tip.....Stainless steel 316 L or lined inconel 600 for I series
Compacted magnesia and stainless steel 316 L for TBC and TBCD series
Angled at 90° (other on request)

Compression fitting.....Stainless steel 316 L

Smooth mounting without fitting : put anything

Mounting with fitting on L2 (See schema) : 12 or 14 corresponding to fitting ½"G and ¼"G.

Mounting with fitting on L2 (See schema) : 12L1 or 14L1 corresponding to fitting ½"G and ¼"G.



No 4 wires mounting for contact tip 4mm ø.

Thread.....With or without fitting ½", ¼" G or NPT plug.

Electrical connection.....Ceramic block junction 2 or 4 contacts. Transmitter as option.

Connection head.....Aluminium alloy(max 120°C)
Cable gland : M20/150
IP65 protection

Storage temperature.....from -20°C to +80°C

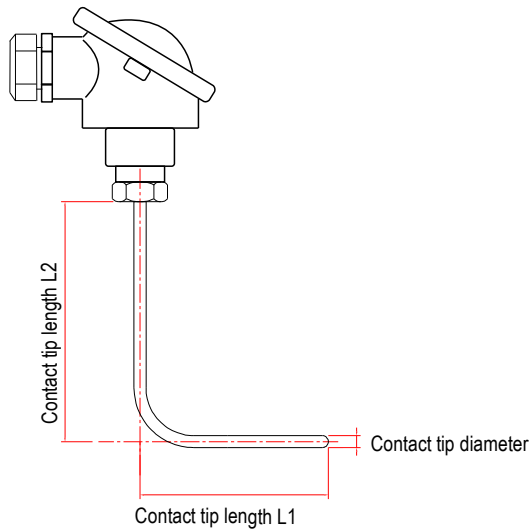
TBC K & TBC KI

Stainless steel angled or lined inconel with or without multipair mounting probe



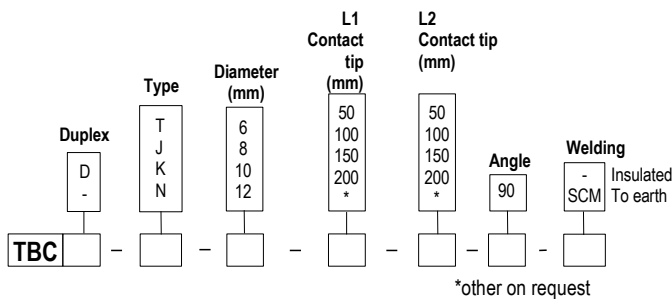
■ Dimensions

L1 mini : according to Ø
 L2 mini : according to Ø
 Bending radius : 15 mm Ø 6 mm
 24 mm Ø 8 et 10 mm

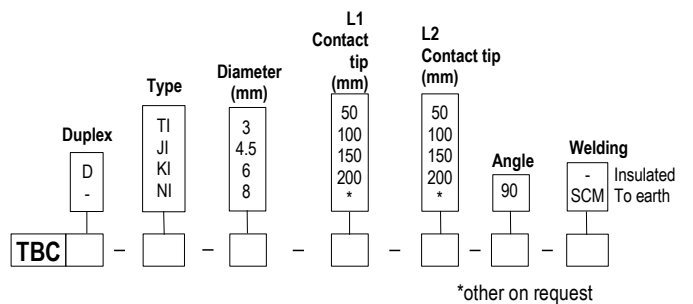


■ Part numbers

• TBC K – Stainless steel contact tip -



• TBC KI – Inconel contact tip -



Example : TBCJ-8-100-100-90-SCM

Model : Thermocouple sensor type J welded to earth with stainless steel contact tip 8 mm Ø angled at 90° and L1 and L2 lengths 100 mm.

Example : TBCJI-8-100-100-90-SCM

Model : Thermocouple sensor type J welded to earth with inconel contact tip 8 mm Ø angled at 90° and L1 and L2 lengths 100 mm.

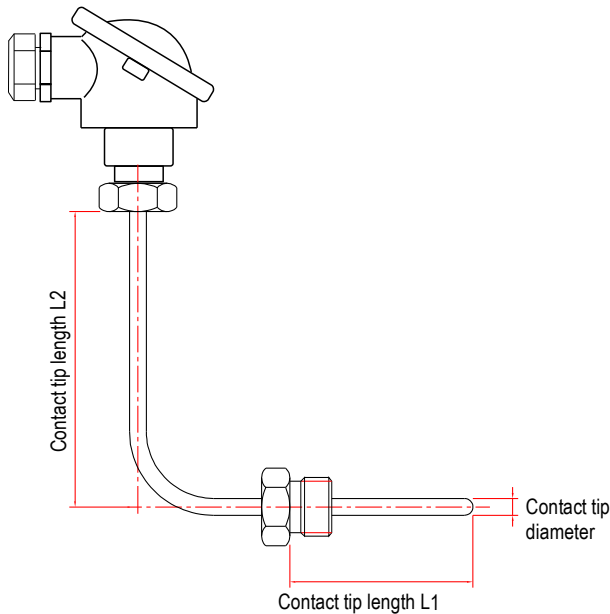
TBCR K & TBCR KI

Stainless steel angled or lined inconel with fitting and with or without multipair mounting probe

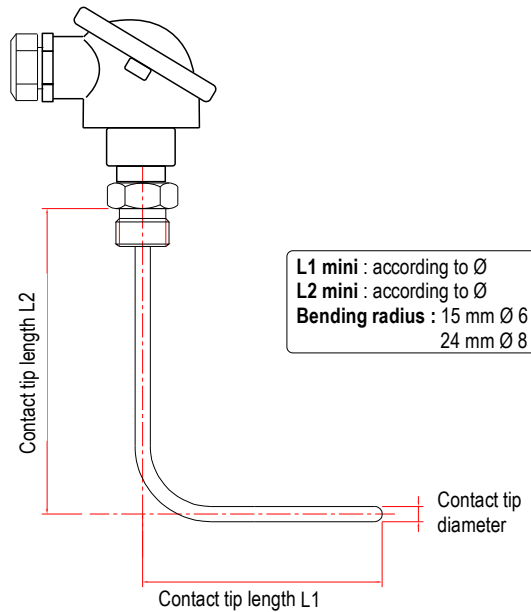


■ Dimensions

- With fitting on L1



- With fitting on L2



L1 mini : according to Ø
L2 mini : according to Ø
Bending radius : 15 mm Ø 6 mm
24 mm Ø 8 et 10 mm

■ Part numbers

• TBCR K - Stainless steel contact tip -

TBCR	Duplex	Type	Diameter (mm)	Contact tip		Fitting	Thread	Angle	Welding
				L1 (mm)	L2 (mm)				
-	D	T J K N	6 8 10 12	50 100 150 200 *	50 100 150 200 *	12 14 12L1 14L1	G NPT	90	- SCM Insulated To earth

*other on request

Example : TBCRJ-8-100-100-12-G-90-SCM

Model : Thermocouple sensor type J welded to earth with stainless steel contact tip 8 mm Ø angled at 90° and L1 and L2 lengths 100 mm with fitting ½G on L2.

• TBCR KI - Inconel contact tip -

TBCR	Duplex	Type	Diameter (mm)	Contact tip		Fitting	Thread	Angle	Welding
				L1 (mm)	L2 (mm)				
-	D	TI JI KI NI	3 4.5 6 8	50 100 150 200 *	50 100 150 200 *	12 14 12L1 14L1	G NPT	90	- SCM Insulated To earth

*other on request

Example : TBCRJI-8-100-100-12-G-90-SCM

Model : Thermocouple sensor type J welded to earth with inconel contact tip 8 mm Ø angled at 90° and L1 and L2 lengths 100 mm, with fitting ½G on L2.

Tolerances

TC	MEASURING RANGE CLASS 1	TOLERANCE
T	From -40°C to +350°C	From -40°C to +125°C $\pm 0.5^\circ\text{C}$ From 125°C to +350°C $\pm 0.004 \times T^\circ\text{abs}$
J	From -40°C to +750°C	From -40°C to +375°C $\pm 1.5^\circ\text{C}$ From 375°C to 750°C $\pm 0.004 \times T^\circ\text{abs}$
K	From -40°C to +1000°C	From -40°C to +375°C $\pm 1.5^\circ\text{C}$ From 375°C to 1000°C $\pm 0.004 \times T^\circ\text{abs}$
N	From -40°C to +1000°C	From -40°C to +375°C $\pm 1.5^\circ\text{C}$ From 375°C to 1000°C $\pm 0.004 \times T^\circ\text{abs}$

Most common thermocouple types

THERMOCOUPLE TYPE	+ CONDUCTOR	- CONDUCTOR	COLOR OF COMPENSATING CABLE
K	Nickel-Chrome 10%	Nickel-Aluminium 5% -Silicium	Ext. color + = GREEN, - = WHITE
T	Copper	Copper-Nickel	Ext. color + = BROWN, - = WHITE
J	Iron	Copper-Nickel	Ext. color + = BLACK, - = WHITE
N	Nickel 84,4% Chromium 14,2% Silicium 1,4%	Nickel 95,6% Silicium 4,4%	Ext. color + = PINK, - = WHITE
R	Platinum-Rhodium 13%	Platinum	Ext. color + = ORANGE, - = WHITE
S	Platinum-Rhodium 10%	Platinum	Ext. color + = ORANGE, - = WHITE
B	Platinum-Rhodium 30%	Platinum-Rhodium 6%	Ext. color + = GREY, - = WHITE

Accessories (See data sheet)

- Extension cable
- Compensating cable
- Standard or miniature connector
- Cable seal for plug and socket connector
- Miniature or standard fixed connector
- Miniature or standard connectors panel
- Extension lead
- Converters

www.kimo.fr

Distributed by :

EXPORT DEPARTMENT

Tel : + 33. 1. 60. 06. 69. 25 - Fax : + 33. 1. 60. 06. 69. 29

e-mail : export@kimo.fr

