GEFRAN

TC9

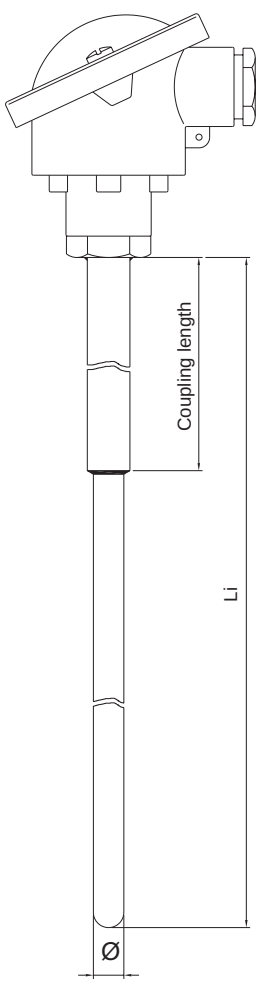
Thermocouples for the Steel Industry

Main features

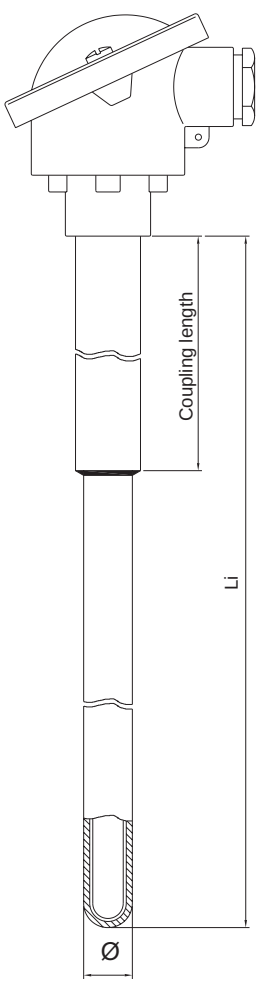
- *Temperature limits:*
  - 40 ... + 1200° C for type K
  0 ... + 1400° C for type S - R
  +600 ... + 1600° C for type B
  (see table for sheath diameters)
- *Tolerance (IEC standard 584.2/Class 1)::*
  for type K: ± 2.5° C (- 40 ... + 333° C)
  ± 0.0075 x [t] (t > + 333° C)
  for type S, R, ± 1° C 0...+1100
  ± [1+0,003 x (t -1100)]°C +1100...+1600°C
  for type B: +600° C ... + 1700°C
  ± 0.0025 x [t]
- *Ceramic insulation of the thermocouple element*
- *Application versatility*

MODELS

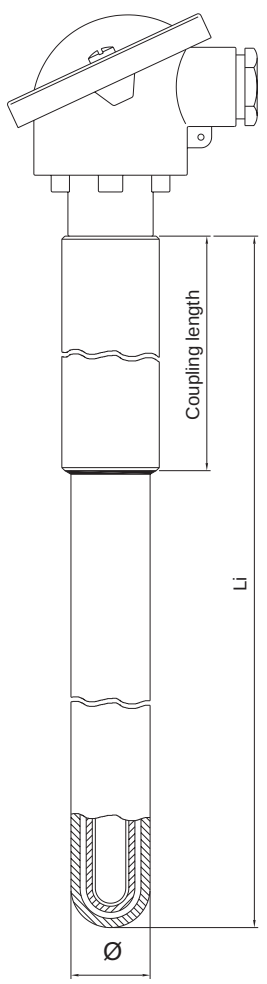
TC9 A
with single sheath



TC9 B
with double sheath



TC9 C
with triple sheath



ORDER CODE

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CODE																												

Model (*)

With single sheath	A
With double sheath	B
With triple sheath	C

(*)
"A" available with ext. sheath Ø 10-16mm
"B" available with ext. sheath Ø 16-26mm
"C" available with ext. sheath Ø 26mm

Elem. + Hot Junction

Single Insulated	1
Double Insulated	3

Thermocouple Type

Ni/Cr - Ni/Al	K
Pt 10% Rh - Pt	S
Pt 30% Rh - Pt 6% Rh	B
Pt 13% Rh - Pt	R

Connection Head

DIN B	C
DIN A	D
DIN BUS	E

Sheath Material

KER 530 - Sillimantin	I *
KER 610 - Pytagoras	L
KER 710 - Al203 99.7%	M

(*) Available for ext. Ø 26mm for B and C models only

Sheath Diameter (mm)

10	K
16	O
26	S

Internal Sheath Mat. (*)

KER 610 - Pytagoras	L
KER 710 - Al203 99.7%	M

(*) Available for B and C models only
"0" = no sheath

Intermediate Sheath (*)

KER 610 - Pytagoras	L
KER 710 - Al203 99.7%	M

(*) Available for C model only
"0" = no sheath

Thermoc. Wire ø (*)

0.35	A
0.5	B

(*) Option for thermocouples with S, B, R element only

Certificates

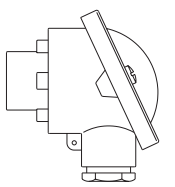
A	Conformity Report
R	Calibration Report
T	SIT Certificate

LENGTHS AND ACCESSORIES

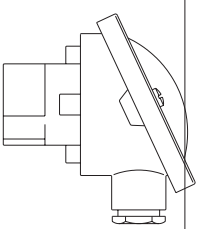
Li = Immersion Length (mm)
Standard length from 200 to 2000mm with 50mm step

Coupling Length (mm)
Standard lengths
70mm for sheaths from 100 to 350mm
100mm for sheaths from 400 to 650mm
200mm for sheaths superior to 650mm

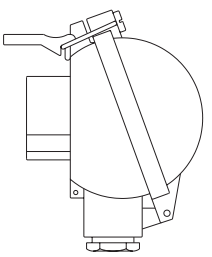
C



D



E



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