

IJ Series

*Rigid tube thermocouple, PT100/1000
with extension cable*

Ref : 2131

Rev : B



DESCRIPTION

This rigid tube probe model is ideal for temperature measurement in solid, liquid, or gaseous environments up to 600°C for PT100/1000 and 1200°C for thermocouples.

The protective sheaths are made of Inconel 600 or stainless steel 304 or 316L. We can also cover them with a Teflon protective sheath when the environment is chemically very aggressive (comes with an extension cable).

MESUREX is a sensor manufacturer. We can adapt most sensors to your needs. Please [contact us](#).

K Green

J Black

T Brown

N Pink

E Purple

R/S Orange

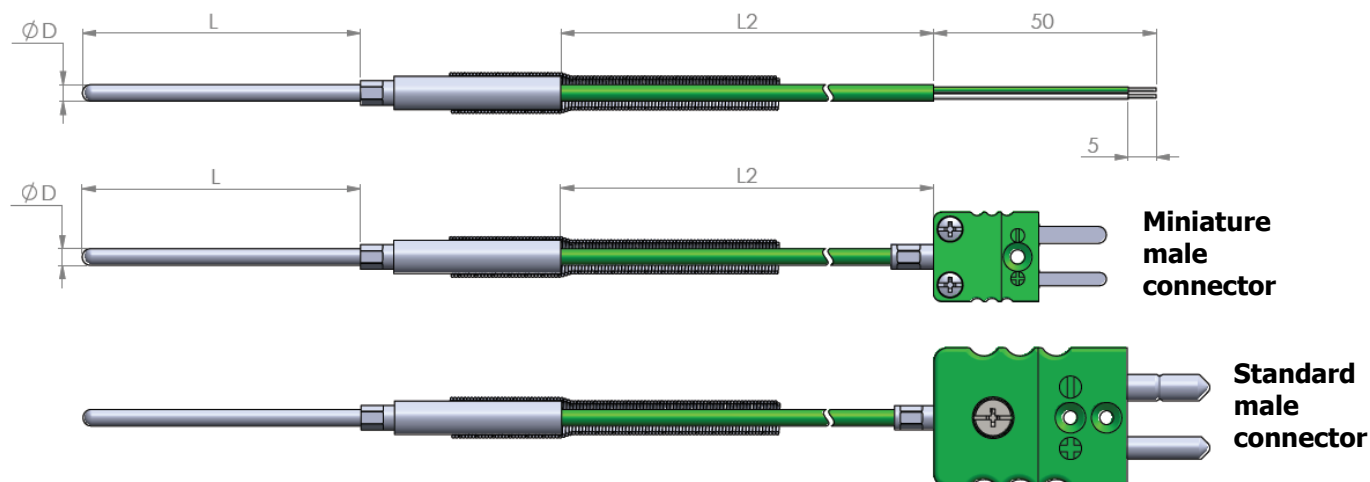
B Grey

TECHNICAL CHARACTERISTICS

PARAMETERS	VALUES
Type	K, J, T, E, N, S or PT100, PT1000
Temperature range	-200°C to 1200°C depending on the diameter of the sheath and the type of thermocouple -196°C to 600°C for PT100/1000
Nature of the sheath	Inconel 600, Stainless steel 316L, Stainless steel 304, Stainless steel 310
Nature of the extension	Shielded Teflon (other on request)
Precision	<u>Thermocouple</u> : Class 1 according to NF EN 60584-1 standard (Class 2 or 3 depending on temperature) (Standard or Special according to ASTM E230/E230M on demand) <u>PT100/1000</u> : Class A, B, 1/3DIN, 1/5DIN, 1/10DIN according to NF EN 60751 standard
Diameter	2 / 3 / 4,5 / 6 / 8 mm
Sheath length	100 / 300 / 500 mm (other on request)
Extension length	2 m as standard (other on request)
Connection	Bare threads as standard <u>Thermocouple</u> : Miniature ⁽¹⁾ , ultra-miniature, standard ⁽¹⁾ connector <u>PT100/1000</u> : Miniature connector ⁽¹⁾ , standard ⁽¹⁾ , M8, M12, DIN, ...

(1) We can offer miniature, ultra-miniature or standard male/female connectors in 2,3 or 4 pins

DIMENSIONS



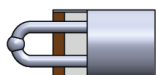
HOT SPOT



**Insulated
(standard)**



Grounded



Bare wires

Note: In the case of an apparent hot spot, the thermocouple should be used in a dry, non-conductive environment.

WIRING

EXTENSION THERMOCOUPLE COLOUR IEC584-3			
K		Green	+ Green
			- White
J		Black	+ Black
			- White
T		Brown	+ Brown
			- White
E		Purple	+ Purple
			- White
N		Pink	+ Pink
			- White
S		Orange	+ Orange
			- White

ORDER INFORMATION

IJ D X L L2 XXX

Tube diameter (D):
2 / 3 / 4,5 / 6 / 8 mm

Thermocouple or PT type:
K / J / T / E / N / S
PT100: P
PT1000: PX

Special options
Unique alphanumeric code

Extension length (L2):
none: 2 meters (standard)
< 1 meter: in mm
≥ 1 meter: in m (**M**)

Jacket length (L):
100 / 300 / 500 mm (other on request)
< 1 meter: in mm
≥ 1 meter: in m (**M**)
Note: a minimum jacket length of 230 mm is required if calibration is requested (500 mm minimum for temperatures above 700°C).

• Special options

OPTION	PARAMETERS	
Nature of the metal sheath	Inconel 600 Stainless steel 316L Stainless steel 310 Stainless steel 304	Standard for K, J, E, N and S type Standard for T type K or N type only N type only
Hot spot	Insulated (standard) Grounded Bare wire	
Nature of the extension	Shielded Teflon (standard) Unshielded Teflon PVC (shielded or unshielded) Silicone (shielded or unshielded) Glass silk (shielded or unshielded)	Temperature: 250°C max Temperature: 250°C max Temperature: 105°C max Temperature: 300°C max Temperature: 480°C max
Connector type	None (standard) Miniature male Miniature female Standard male Standard female Ultra-miniature male Ultra-miniature female Other type of connector	200°C max (standard) High temperature (350°C max) Ceramic (650°C max) (contact us)
Precision	Class 1 according to NF EN 60584-1 standard (standard) Class 2 or Class 3 according to NF EN 60584-1 standard (depending on temperature) Standard or Special according to ASTM E230/E230M standard (AMS 2750E application) Class A, B, 1/3DIN, 1/5DIN, 1/10DIN according to NF EN 60751 standard	

Examples :

→ Thermocouple:

IJ2K300MMK

- K type thermocouple
- Tube in 304
- Diameter 2 mm
- Length 300 mm
- Hot weld insulated from the mass
- Shielded Teflon extension
- Length 2 m
- Miniature male connector
- Class 1 according to NF EN 60584-1 standard
- Color code according to NF EN 60584-3 standard

→ PT100:

IJ3P2003CU

- PT100
- Stainless steel tube 304
- Diameter 3mm
- Length 200mm
- Shielded Teflon extension
- Length 2m
- Output bare wires
- Class A according to NF EN 60751 standard
- 3-wire connection

CONTACT

MESUREX

13 Rue des Corroyés

78730 Saint Arnoult en Yvelines (France)

Tel : +33 (0) 1 30 41 23 62

Fax : +33 (0) 1 30 41 23 80

Mail : mesurex@mesurex.fr