

# Mineral insulated thermocouple with miniature or standard connectors

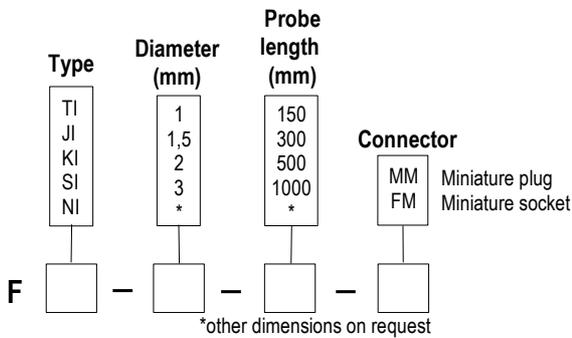
**FKI**

- Thermocouple types T, J, K, S or N.
- Mineral insulated sheath to be formed to shape and terminated in a miniature or standard connector.



## Part numbers for miniature connector output

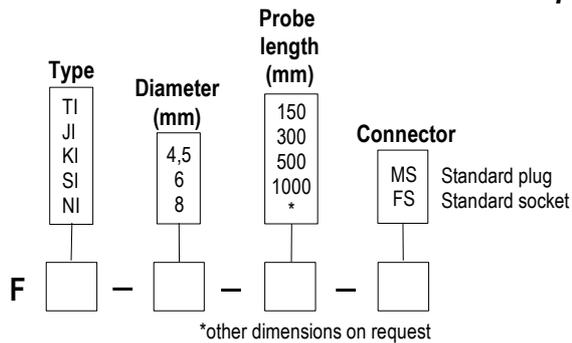
To order, just add the codes to complete the part number.



**Example : FTI-15-150-MM**

**Model :** Thermocouple type T with mineral insulated sheath, length 150 mm and 1.5 mm Ø. Sheath terminated in a miniature plug.

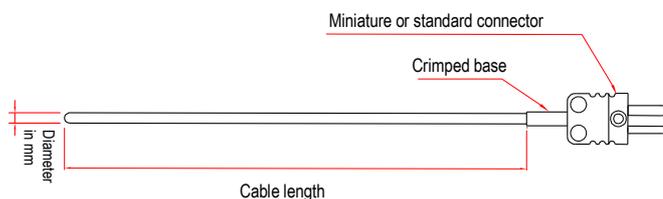
## Part numbers for standard connector output



**Example : FTI-45-150-FS**

**Model :** Thermocouple type T with mineral insulated sheath, length 150 mm and 4.5 mm Ø. Sheath terminated in a miniature plug.

## Dimensions



## Technical feature

**Working temperature**.....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  
from -40°C to +1000°C for Tc N  
from 0°C to +1100°C for Tc S

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

**Mounting**.....Ungrounded or grounded hot junction.  
Inconel 600 Mineral insulated or 326 L stainless steel according to thermocouple type.

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

**Connector output**.....Miniature from 0.5 to 3 mm Ø  
Standard from 4.5 to 8 mm Ø  
Or other on request.



**Connector rated up to**.....135°C

## Tolerances\* of the probe

As per IEC 584-3 norm

TC	Measuring range CLASS 1	TOLERANCE
T	From -40°C to +350°C	From -40°C to +125°C ± 0.5°C From 125°C to +350°C ± 0.004 x T°
J	From -40°C to +750°C	From -40°C to +375°C ± 1.5°C From 375°C to 750°C ± 0.004 x T°
K	From -40°C to +1000°C	From -40°C to +375°C ± 1.5°C From 375°C to 1000°C ± 0.004 x T°
N	From -40°C to +1000°C	From -40°C to +375°C ± 1.5°C From 375°C to 1000°C ± 0.004 x T°
S	From 0°C to +1600°C	From 0 to +1100°C ± 1°C From 1100°C to 1600°C ± (1 + 0.003*(T°-1100))

\* Performed in laboratory conditions, the above accuracies mentioned in this document will be guaranteed, provided that you use the calibration compensation data or identical calibration conditions.

## ■ Most common thermocouple types

THERMOCOUPLE TYPES	+ CONDUCTOR	- CONDUCTOR	COLOR OF COMPENSATING CABLE
K	Chromel	Alumel	Ext. color + = GREEN, - = WHITE
T	Copper	Constantan	Ext. color + = BROWN, - = WHITE
J	Iron	Constantan	Ext. color + = BLACK, - = WHITE
N	Nicrosil	Nisil	Ext. color + = PINK, - = WHITE
R	Platinum-13% Rhodium	Platinum	Ext. color + = ORANGE, - = WHITE
S	Platinum-10% Rhodium	Platinum	Ext. color + = ORANGE, - = WHITE
B	Platinum-30%Rhodium	Platinum- 6%Rhodium	Ext. color + = GREY, - = WHITE

## ■ Accessories (See Datasheet)

- 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

