ECIL MET TEC* expendable thermocouples that fulfill the greatest variety of needs of temperature measurements in industries that process molten metals, such as Foundries and Steel Mills. Manufactured according to rigid quality requirements, these sensors are rugged enough to withstand the immersion in molten metal as well to measure the temperature with the required accuracy.

These thermocouples are able to measure the temperature of metals and alloys within the range from 2000 ºF up to 3270 ºF, in BOFs (Basic Oxygen Furnaces), Blast Furnaces, Electrical Arc or Induction Furnaces, Melting Furnaces, ladles, continuous casting distributors, or any other measuring point that allows the thermocouples immersion.

To properly select which product of this thermocouples family is the most suitable, the followings aspects have to be taken into consideration: operators safety, immersion requirements (furnace or ladle capacity and access) and molten metal conditions (temperature, slag etc).

The thermocouples can be of Type-S (Pt-10%Rh/Pt), Type-R (Pt-13%Rh/Pt) or Type-B (Pt-6%Rh/Pt-30%Rh) and are calibrated according to the International Temperature Standards.

They are also available in small diameter (3/8”) and large diameter (3/4”) versions, with ceramic body. The large diameter version is more sturdy than the small diameter one, being used in heavy-duty applications.

Where operator and/or equipment safety can be affected by metal splashes, it’s recommended to use the NS (non-splash) thermocouples. The non-splash protection which partial or totally covers the cardboard tube, avoids splashes during the sensor immersion.

The high level of reliability and accuracy supported by an effective permanent technical service make the ECIL MET TEC* thermocouples the perfect solution to meet the rigorous quality customers demand.
Ordering Information

The TERMOTIP* thermocouples are produced in the Unilock version 3/8” (small diameter), for general purpose and MKV version (3/4” large diameter), for heavy-duty applications.

Applications:

- FOUNDRY: induction, channel and EAF melting furnaces, ladle, holding furnace and auto-pour tundish.
- STEEL MILL: BOF, EAF, Ladle, Tundish, Blast Furnace and Secondary Metallurgy Stations.

E.g.: (US only)
TL1048ST: TERMOTIP* sensor, large diameter (3/4”), type S, 48” long, steel cap, ceramic housing, IPTS48 and regular I.D.

Remark: Type R and B thermocouples are always supplied with wires calibrated according to the IPTS 68.
Ordering Information

TNS NON-SPLASH THERMOCOUPLES

Produced in the 3/8” (small diameter) version, it has a non-splash protection, which avoids splashes during the sensor immersion in the molten metal bath.

Applications:
- FOUNDRY: induction, channel and EAF melting furnaces, ladle, holding furnace, auto-pour tundish.
- STEEL MILL: EAF, Ladle, Tundish, Blast Furnace and Secondary Metallurgy Stations.

E.g.: (US only)
TNS102436AL: Thermocouple non-splash, type S, 24” NS sleeve, 36” long, Aluminum cap, ceramic housing, IPTS68 and regular I.D.

Remark: Type R and B thermocouples are always supplied with wires calibrated according to the IPTS 68.
Functional Dimensions

Large Diameter (3/4"

Small Diameter (3/8"

TNS

TNS Long quartz

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