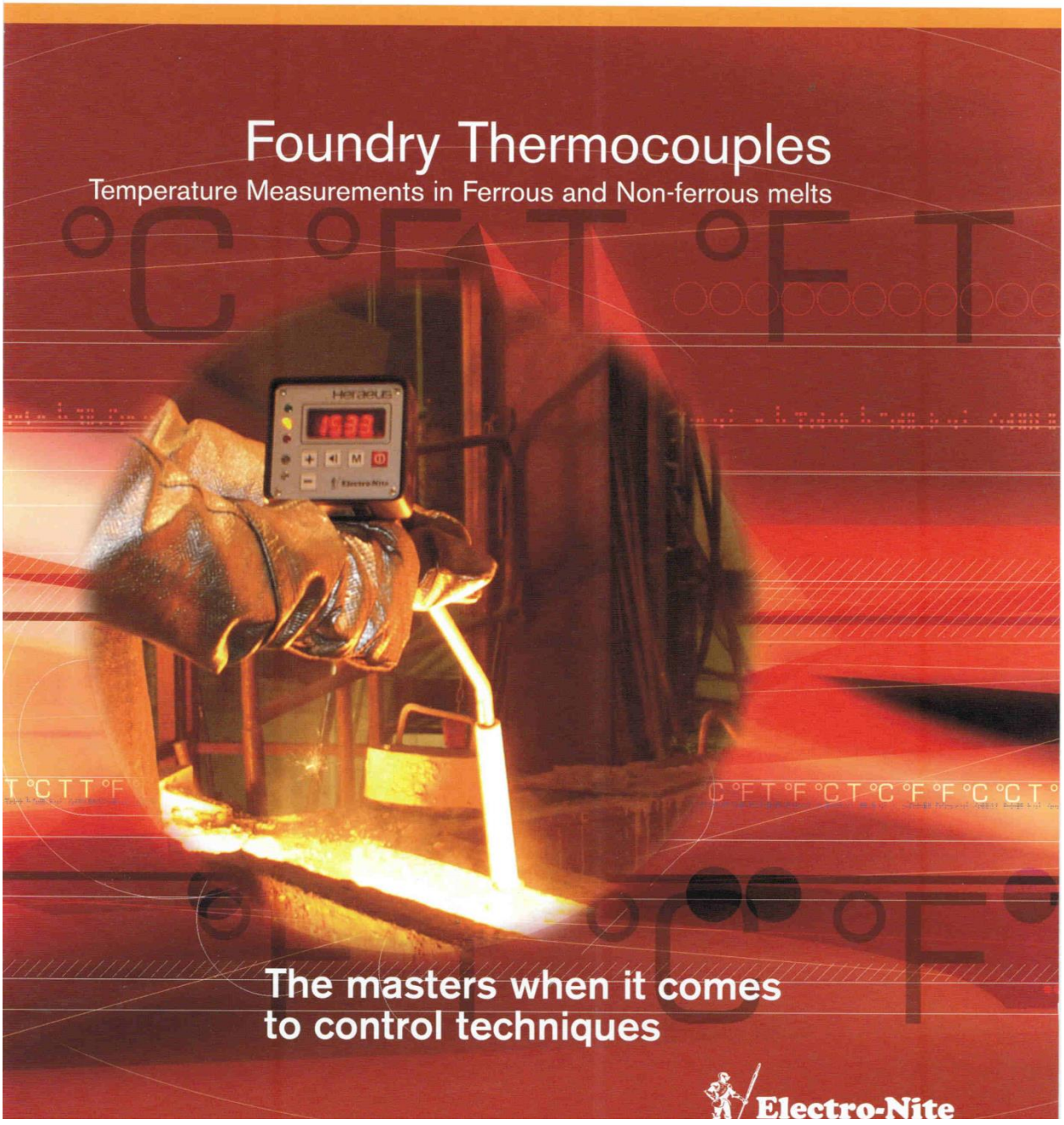
Heraeus

Foundry Thermocouples

Temperature Measurements in Ferrous and Non-ferrous melts



The masters when it comes to control techniques

Electro-Nite

THERMOCOUPLES

Immersion thermo-electric sensors still remain the best way to determine the real temperature of a molten metal. They come in many varieties.

POSITHERM

The standard Positherm contains a TC thermocouple inserted on a long cardboard tube that will protect the immersion lance from melting.

There are several types designated by:
- TC type (10% "S", 13%"R", 36%"B",...)
- Slag Cap (Alu, Copper, Steel, ..)
- Tube length (150mm, 400mm, 600mm, ...)

e.g. **TC101304** Positherm consists of S-type TC and Alu slag cap, on a 400mm tube.

POSITHERM NON-SPLASH

The Positherm Non-Splash has an extra mineral sleeve around the dipping head so that the cardboard tube does not come in contact with the melt and does not splash.

This biosoluble Non-Splash material length can be 100, 200 or 500mm.

e.g. **NS10130401** Positherm TC101304 with 100mm NS sleeve.

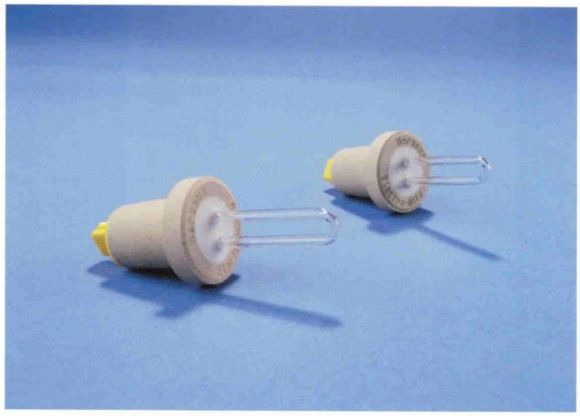
LONG QUARTZ MULTI-IMMERSION

A Positherm with an extra long quartz U-bend can be used for multiple measurements in shallow, slag-free melts. Only the quartz is immersed.

Product varieties differ in
- TC type (10%"S", 13%"R", 36%"B", ...)
- Length of the quartz tube (35mm, 50mm, ...)

e.g. **NS1003F** (S-type, 35mm long quartz)

On special request point TC's can be supplied instead of U-bend.



MULTI-STIK

For deeper multiple dips into slag-free melts a more rigid version of the Positherm NS is available. The Non-Splash sleeve is always made of Alkaline Earth Silicates (AES) material, which is biosoluble.

There are 3 types, in increasing order of robustness:
- Multi-stik
- Maxi-stik
- XT (Extra-Therm)

Product varieties differ in TC type, cardboard tube length and NS length.

e.g. **NS10530492AES**: Multi-stik type S, on a 400mm cardboard tube and 140mm AES sleeve.

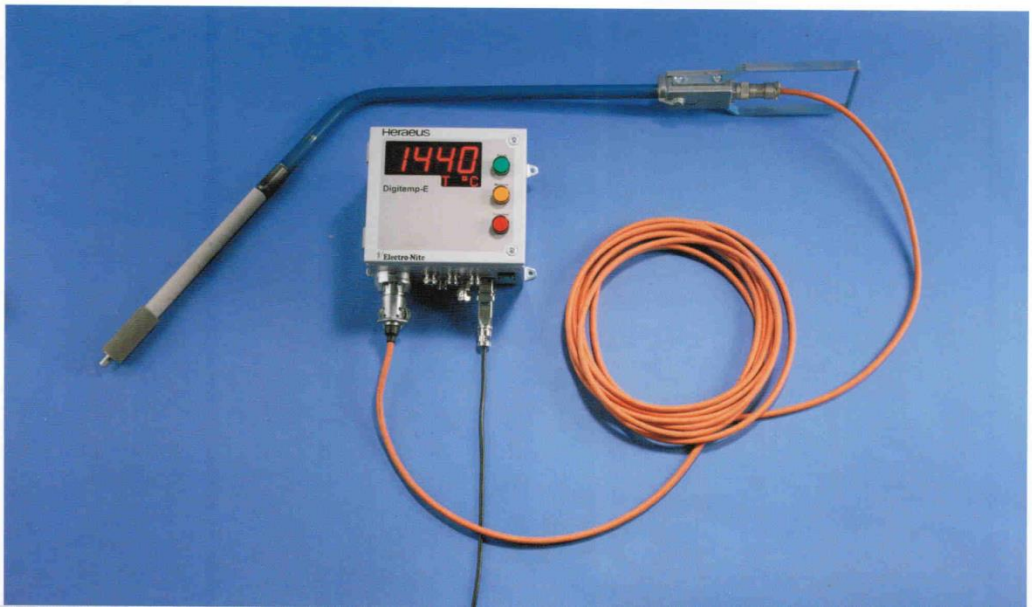
DIGITEMP-E

The wall mounted Digitemp-E (DTE3) is an instrument that clearly displays the measured temperature.

The dipping lances, onto which the Positherm and other probes are attached, are connected to this instrument by means of an external compensation cable.

LANCES FOR DIGITEMP-E

Hand lances should be adapted to the working conditions in the foundry. This is why they come in many variations.



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MEASUREMENT SYSTEMS

DIGILANCE IV

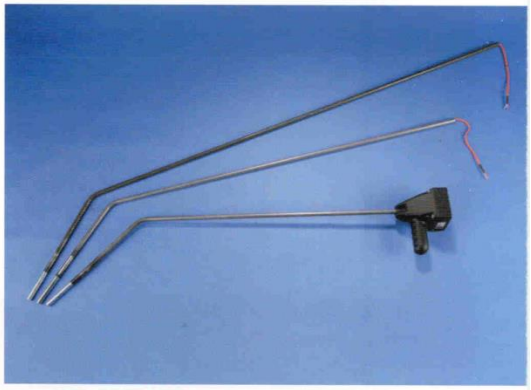
The handheld Digilance IV (DGL4) is a versatile tool for temperature measurement in the foundry. A lightweight lance is used to connect a disposable thermocouple to the portable instrument, so that temperature measurements can easily be taken in several locations.

There are 3 Digilance models:
- Standard
- Memory
- Wireless (with receiver box)

LANCES FOR DIGILANCE IV

- The standard lances for Digilance or DT-lances are 1300, 1700 or 2100 mm in length and have a bend at the measurement end, so that the 400mm Positherm probes can be easily dipped.

- DT-lances come in 2 formats, S/R type and B-type compensated. Other lengths and dimensions are available on request.



TYPE-K LANCES FOR DIGILANCE IV

The Digilance IV can also be equipped with a K-type of lance for use in non-ferrous foundries.

There are 3 K-type lance versions:
- Metal sheated TC
- Wired TC
- Mineral insulated TC