



# DISPOSABLE IMMERSION THERMOCOUPLE, TYPE TIN-1



## DESCRIPTION

Disposable immersion thermocouple TIN type is a thermoelectrical transducer which measure directly, precisely and instantly through immersion method the ferrous and non-ferrous molten temperature in the furnaces ovens convertors, ladles.

## TECHNICAL DATA

- Types of thermocouples : **S** (Pt10%Rh-Pt) or  
: **R** (Pt13%Rh-Pt) or  
: **B** (Pt6%Rh-Pt30%Rh);
- Calibration : according to IEC 584-1 based on ITS-90 or IPTS-68
- Accuracy of wires at Pd melting point (1554°C) : 0 to +4°C
- Maximum immersion time (at 1650°C) : 7 seconds;
- Measuring time : 3 to 6 seconds ;
- Slag-protecting caps material : steel for temperature >1520°C  
: aluminum for temperature <1520°C
- Characteristic lengths : according to the appendix tables;
- Internal diameter : 17,5±0,5 mm
- Special execution (demand) :
  - Non-Splash type (an additional casing impregnated with a refractory cement) ;
  - The length of the casing to protection non-splash : according to the appendix

## PACKING

25 - 50 pcs. per cardboard box.

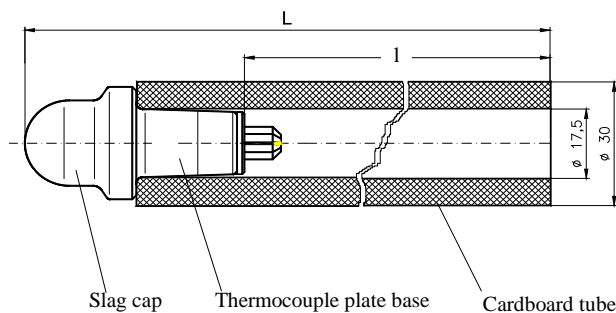
## USE

In order to do the measurement, the thermocouple is to be connected to the Coupling Lance which contains the polarized Contact Block. The Lance is connected to the measuring device which through a compensatory-extension cable takes the signal and displays the temperature.

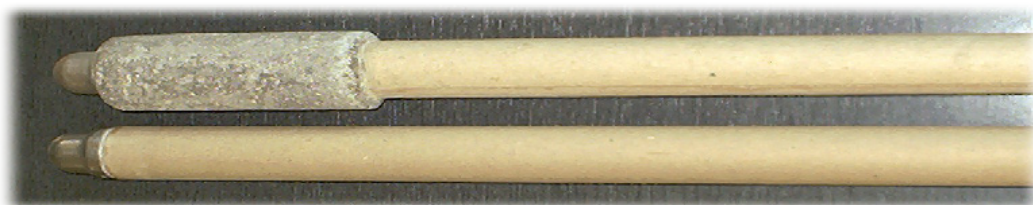
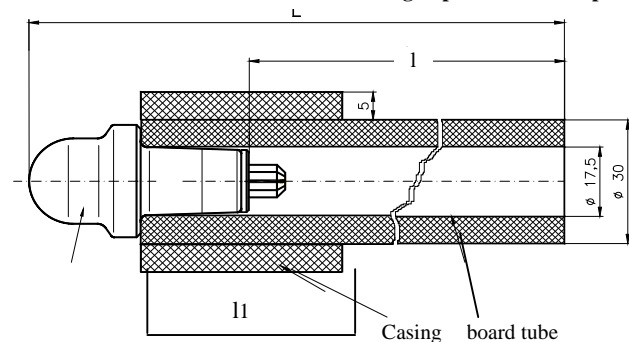
## APPLICATIONS

Temperature measurement in blast furnace, convertors, electrical furnace, ladle, ovens, iron-foundry, copper melts and other alloys.

Normal execution



Execution with casing to protection non-splash



**CALIBRATION Pt /Pt10%Rh**

**A. Normal execution**

Lenght Code	L(mm)	l (mm)	SLAG PROTECTION CAP MATERIAL	
			Steel	Aluminium
300	292	240	TS 110003	TS 110103
400	392	340	TS 110004	TS 110104
500	492	440	TS 110005	TS 110105
600	592	540	TS 110006	TS 110106
700	692	640	TS 110007	TS 110107
900	892	840	TS 110009	TS 110109
1000	992	940	TS 110010	TS 110110
1200	1172	1120	TS 110012	TS 110112
1500	1472	1420	TS 110015	TS 110115
1700	1672	1620	TS 110017	TS 110117

**B. Non- splash execution**

Lenght Code	L(mm)	Non-splash casing ll(mm)	SLAG PROTECTION CAP MATERIAL	
			Steel	Aluminium
400	392	100	TS 210004	TS 210104
600	592	200	TS 210006	TS 210106
900	892	500	TS 210009	TS 210109
1000	992	500	TS 210010	TS 210110
1200	1172	500	TS 210012	TS 210112
1500	1472	500	TS 210015	TS 210115

**CALIBRATION Pt/Pt13%Rh**

**A. Normal Execution**

Lenght Code	L(mm)	l (mm)	SLAG PROTECTION CAP MATERIAL	
			Steel	Aluminium
300	292	240	TR 113003	TR 113103
400	392	340	TR 113004	TR 113104
500	492	440	TR 113005	TR 113105
600	592	540	TR 113006	TR 113106
700	692	640	TR 113007	TR 113107
900	892	840	TR 113009	TR 113109
1000	992	940	TR 113010	TR 113110
1200	1172	1120	TR 113012	TR 113112
1500	1472	1420	TR 113015	TR 113115
1700	1672	1620	TR 113017	TR 113117

**B. Non- splash execution**

Lenght Code	L(mm)	Non-splash casing ll(mm)	SLAG PROTECTION CAP MATERIAL	
			Steel	Aluminium
400	392	100	TR 213004	TR 213104
600	592	200	TR 213006	TR 213106
900	892	500	TR 213009	TR 213109
1000	992	500	TR 213010	TR 213110
1200	1172	500	TR 213012	TR 213112
1500	1472	500	TR 213015	TR 213115

**CALIBRARE Pt6%Rh /Pt30%Rh**

**A. Normal Execution**

Lenght Code	L(mm)	l (mm)	SLAG PROTECTION CAP MATERIAL	
			Steel	Aluminium
300	292	240	TB 136003	TB 136103
400	392	340	TB 136004	TB 136104
500	492	440	TB 136005	TB 136105
600	592	540	TB 136006	TB 136106
700	692	640	TB 136007	TB 136107
900	892	840	TB 136009	TB 136109
1000	992	940	TB 136010	TB 136110
1200	1172	1120	TB 136012	TB 136112
1500	1472	1420	TB 136015	TB 136115
1700	1672	1620	TB 136017	TB 136117

**B. Non-splash execution**

Lenght Code	l(mm)	Non-splash casing ll(mm)	SLAG PROTECTION CAP MATERIAL	
			Steel	Aluminium
400	392	100	TB 236004	TB 236104
600	592	200	TB 236006	TB 236106
900	892	500	TB 236009	TB 236109
1000	992	500	TB 236010	TB 236110
1200	1172	500	TB 236012	TB 236112
1500	1472	500	TB 236015	TB 236115