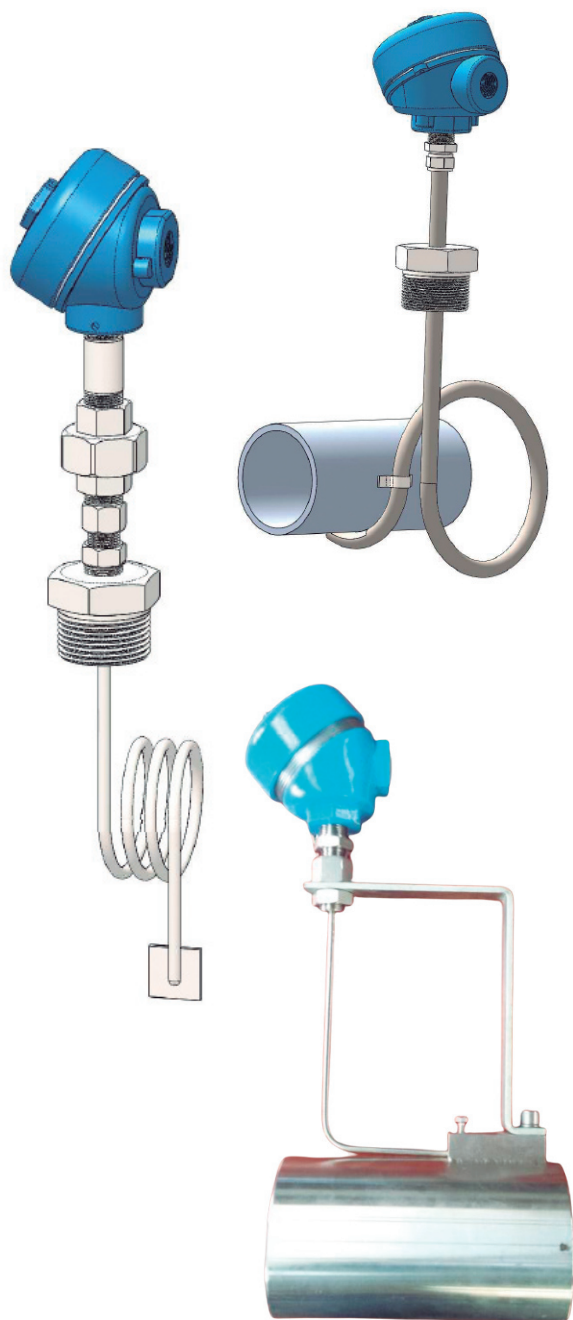# TEMPERATURE

Skin-Point

DESCRIPTION: Depending on the temperature value to be measured, both thermocouples and resistance thermometer can be used in the measurement of surface temperature in furnaces, boilers or heaters, as well as in pipes. As a measuring element, thermocouple and resistance thermometer can be used, being thermocouple the most common.

DENOMINATION

Surface temperature measuring element, resistance thermometer and thermocouples.

CHARACTERISTICS

Built with MgO insulation and sheaths in main austenitic materials including some refractory, they are able to measure in situations of direct incidence of flame.

- Rules of design:	IEC 60584, ANSI MC96.1 or DIN-43710, ASTM E230, ASTM E235, IEC 60751, ASTM E780, ASTM E1137, ATEX, IECEx.
- Materials:	On demand.
- Sizes of manufacturing:	- -Ø sheath: 0.5 - 12.7mm. - Standard and special sheath thicknesses. - Gauges of the conductive wires according to AWG. - Other sizes on request.

APPLICATIONS

- Nuclear industry.
- Chemical and petrochemical industry.
- Aeronautical and aerospace industry.
- Explosion-proof zones.
- Renewable energy industry.

NOTES

- Calibrations performed by both laboratories externally and internally in our Calibration laboratory.

Common types of Skin-Point:

- V-pad type.
- Washer-pad type.
- Weld-pad type.

Thermocouple depending on the temperature range:

Type	Range (ºF)	Range (ºC)	Standard Tolerances (ºC)	Special Tolerances (ºC)
T	32 − 700	0 − 370	±1,0 o ±0,75%	±0,5 o ±0,4%
J	32 − 1400	0 − 760	±2,2 o ±0,75%	±1,1 o ±0,4%
E	32 − 1600	0 − 870	±1,7 o ±0,5%	±1,0 o ±0,4%
K o N	32 − 2300	0 − 1260	±2,2 o ±0,75%	±1,1 o ±0,4%

Thermocouple depending on the type of junction of the conductors:

Type	Description
A	Ungrounded
B	Grounded
C	Exposed

In the manufacturing process, solutions have been implemented to make these sensors resistant to high vibrations.

*Not including applicable notes to this tolerance table please refer to notes in applicable international standards.