THE THERMOWELLS

The thermowells are metal cases used to protect thermometers or temperature probes from the more or less corrosive effects of the processing fluid.

In fact, they assure the impermeability of the system, guaranteeing the maintenance or the replacement of the instruments without having to stop the system itself, or without the risk that any fluids could cause damage to the instruments themselves, to people or to the environment.

The thermowells (also commonly referred to as probe holder) can be realised in different metal alloys, depending on the aggressiveness, pressure and speed of the processing fluid.

There are different types of thermowells, from pipes with standard and sanitary threads or flanged for medium-low workloads, to bars (obtained from solid) with special process threads for more aggressive workloads. This last solution is usually recognized by sight for the greater weight of the well and for the usual "step", in the immersion length, to ensure greater sensitivity in detecting the process temperature.

DEFINITION OF THE PARTS OF THE THERMOWELL:

Extension

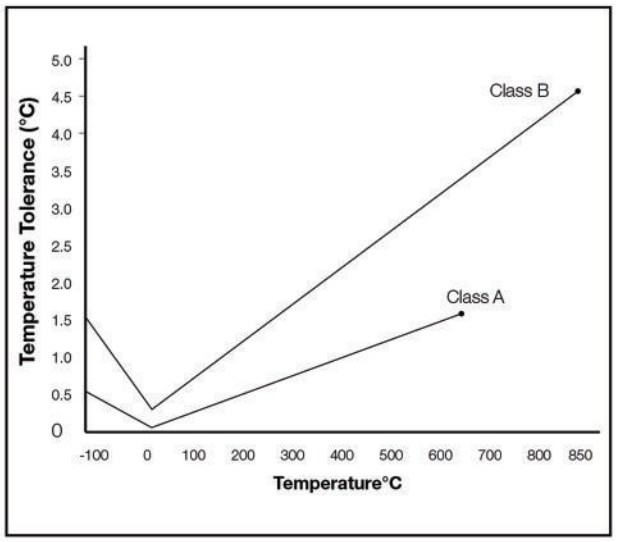
It's the portion that goes from the top end of the process fitting to the bottom end of the counting hex. Its purpose is that one of removing, if necessary, the coupled instrument from the process conduit.

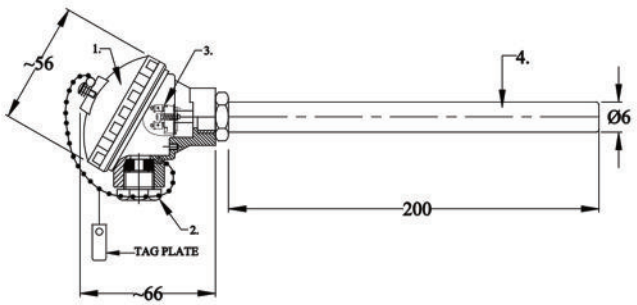
Immersion length

It's the part of the thermowell that goes from the lower end of the shank (tip), intended to be inserted in the process fluid, up to the process connection (being it threaded or flanged).

Process connections

The thermowells can have a wide range of connections, i.e. standard threaded, special, flanged, swivel, Triclamp, special conical threads or to weld without thread.



Temperature	Class A (±)	Class B (±)
-200°C	0.55°C	1.3°C
100°C	0.35°C	0.8°C
0°C	0.15°C	0.3°C
100°C	0.35°C	0.8°C
200°C	0.55°C	1.3°C
300°C	0.75°C	1.8°C
400°C	0.95°C	2.3°C
500°C	1.15°C	2.8°C
600°C	1.35°C	3.3°C
700°C		3.8°C
800°C		4.3°C
850°C		4.6°C

RTD Insert Construction