Range 73
MEASURING INSTRUMENTS

Temperature measurement

Model 7342 Stainless steel bimetallic smoke thermometer

Axial 316 Ti stainless steel male BSPP connector

Specifications

Connection: male G 1/2" according to ISO 228-1
Temperature range: 0°C to +500°C
Usage pressure: 25 bar
Accuracy: class 1 according to EN 1390
Material: 316 Ti stainless steel
Protection rating: IP43

ISO 9001 BUREAU VERITAS Certification

CE

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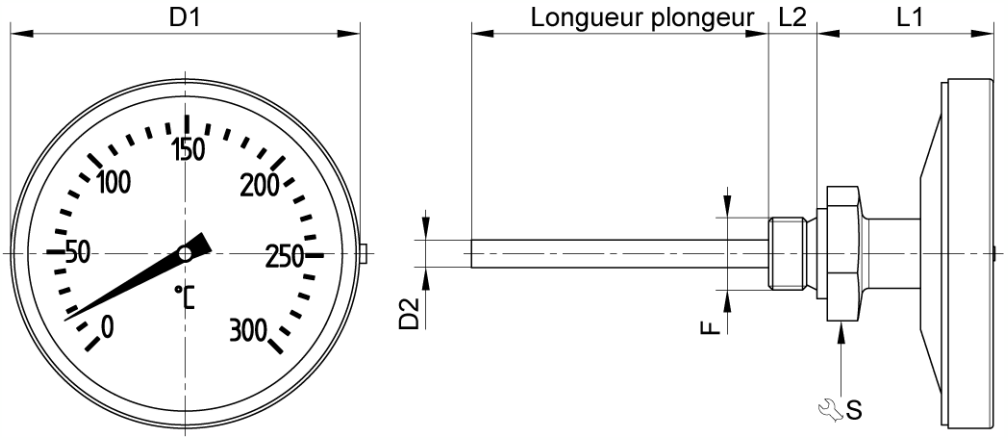

Dial Ø (mm)	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	F (mm)	S (mm)
63	63	8	46	14	G 1/2"	27
80	80	8	47	14	G 1/2"	27
100	100	8	52	14	G 1/2"	27
160	160	8	57	14	G 1/2"	27

Temperature (°C)	Stem length (mm)	Part number Ø63	Part number Ø80	Part number Ø100	Part number Ø160
0 to +300°C	100	**273421-100300**	-	**273423-100300**	-
0 to +400°C	100	-	-	**273423-100400**	**273424-100400**
0 to + 500°C	100	-	**273422-100500**	**273423-100500**	**273424-100500**
0 to +300°C	160	-	-	**273423-160300**	-
0 to +400°C	160	-	-	**273423-160400**	-
0 to + 500°C	160	-	-	**273423-160500**	**273424-160500**

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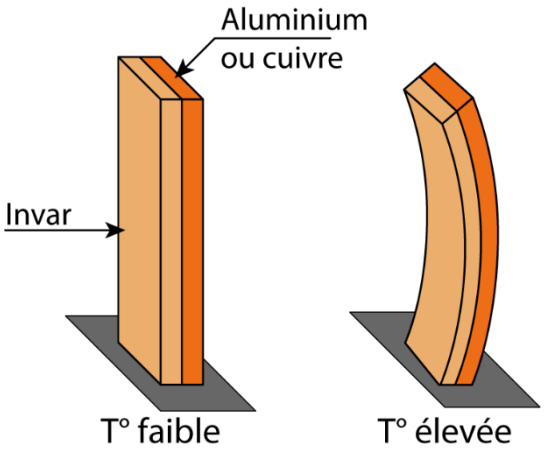
Use

Description

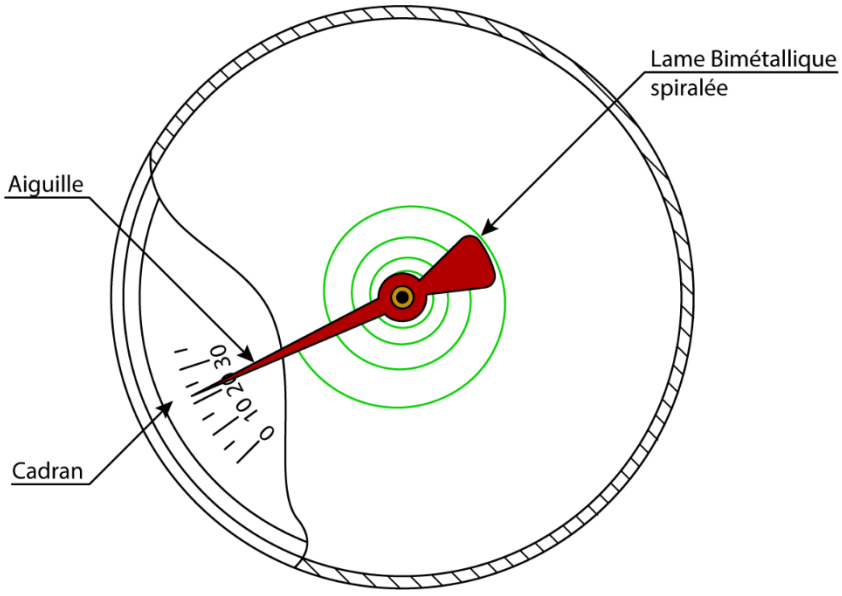
Bimetallic thermometers measure temperature through the difference in thermal expansion coefficient of two different types of metal strip.

They contain either one copper or aluminium strip, as these metals have a high thermal expansion coefficient, and one invar strip, as this metal has a low thermal expansion coefficient. These two strips are glued together to form a bimetallic strip.



When the temperature increases, the copper (or aluminium) strip distorts more than the invar strip. The higher the temperature, the more the bimetallic strip will curve.

The bimetallic system contains a bimetallic strip wound helically or in a spiral.



The strip is linked to the needle by a pin. When the bimetallic system distorts, the pin rotates and this rotates the needle.

The thermometer includes a graduated dial so that the needle points to the measured temperature.

Fluids

Bimetallic 'smoke' thermometers are designed for use with gaseous fluids and in particular for measuring the temperature of smoke. They can be used, for example, for applications involving exhaust gases.

However, the fluid must be compatible with 316 stainless steel.

Accessories

Here is a list of all of our thermometer accessories.

- The thermometer can be installed in a thermowell to facilitate maintenance and so that you do not need to purge the piping if you need to carry out maintenance on the measuring instrument. The thermometer can also be combined with a thermowell for use in critical processes:
  - Model **7370**: Machine-welded thermowell - inner Ø 9mm - Low cost range - 316 stainless steel - Process connection: BSPP male thread 1/2"
  - Model **7371**: Machine-welded thermowell - inner Ø 8.2mm - TW 45 Shape 5 - 316 Ti stainless steel - Process connection: BSPP male thread 1/2"
  - Model **7373**: Solid machined thermowell - inner Ø 9mm - TW 50 Shape 6 - 316 Ti stainless steel - Process connection: BSPP male thread 1/2"
  - Model **7374**: Solid machined thermowell - inner Ø 9 mm - TW 55 Shape 4 - 316 Ti stainless steel - Process connection: plain to be welded

- You can use contact grease to improve the thermal contact between the thermometer's stem and the thermowell:
  - Model **7376**: Contact grease for thermometers

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