

MB219, Pt Temperature Sensor according to DIN EN IEC 60751

Temperature range -70 °C to +500 °C, temporary up to +550 °C

- High long-term stability
- High accuracy and interchangeability
- High vibration and shock resistance
- Optimized for welding
- Good choice for high volume applications

MB series Pt RTDs are designed for large volume applications, where competitive costs, long term stability and interchangeability is vital. The MB219 combines performance and high-volume availability and is a good choice for pyrolytic ovens, HVAC and other applications. In principle, the products can also be used in automotive applications, in this case YAGEO Nexensos will check upon the request of the customer, whether additional requirements can be met (e.g. IMDS, PPAP).

Nominal Resistance R_0 [Ω]	Tolerance Class	Order Number	Packaging
Pt100	F 0.3 (B)	5202785	Plastic bag
Pt1000	F 0.3 (B)	5190184	Plastic bag

The measuring point for the nominal resistance is 6 mm from the end of the sensor body.

Temperature Range of Tolerance Class

Validity of Class F 0.3 (B) -70 °C to +500 °C

Characteristics according to DIN EN IEC 60751.

The specified tolerance classes refer to continuous operation.

Temperature Coefficient

TCR = 3850 ppm/K

Response Time

Water ($v = 0.4$ m/s):
 $t_{0.5} = 0.05$ s
 $t_{0.9} = 0.15$ s

Air ($v = 2$ m/s):
 $t_{0.5} = 3$ s
 $t_{0.9} = 10$ s

Measuring Current

Pt100 Ω: 0.3 to 1 mA

Pt1000 Ω: 0.1 to 0.3 mA

(self-heating has to be considered)

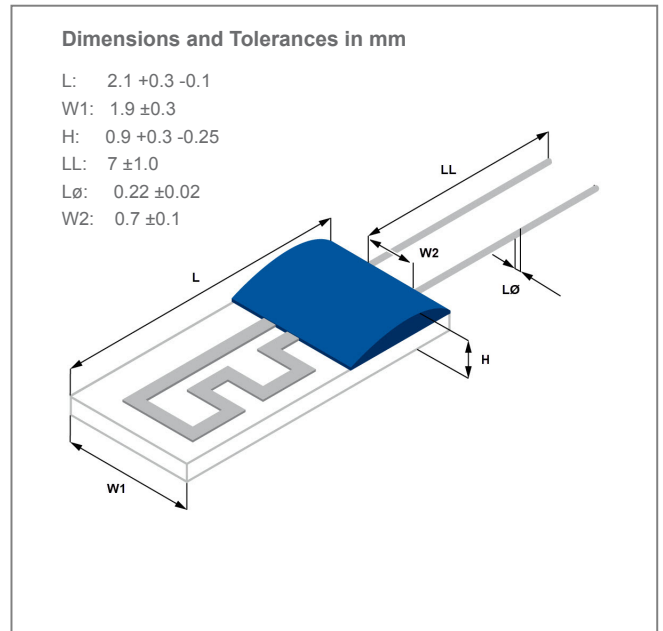


Image for illustration purposes only
 Color, shape and forming of fixing drop may vary

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Long-Term Stability

The drift of the resistance value at 0 °C after a storage for 1000 hours in air at the declared upper temperature limit is not more than the tolerance value of the declared tolerance class according to DIN EN IEC 60751.

Self-Heating

0.4 K/mW at 0 °C

Insulation Resistance

> 100 MΩ at 20 °C
> 2 MΩ at 500 °C

Vibration Resistance

At least 40 g acceleration at 10 to 2000 Hz, depends on installation

Shock Resistance

At least 100 g acceleration with 8 ms half sine wave, depends on installation

Connection Technology

Brazing, Welding, Crimping

Lead Type

Ni-wire

Tensile Strength of Leads

≥ 8N

Packaging

Plastic bag
Alternative packaging forms on request.

Storage Life

Min. 24 months (in original packaging).

Note

Other tolerances, values of resistance and wire lengths are available on request.

Due to random sample measurements, a bending of connection wires may occur (called V-shape). This bending is batch-dependent and has no influence on the functionality of the platinum measuring resistor.

California Proposition 65



WARNING

WARNING: This product can expose you to chemicals including lead oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm, and including cobalt oxide, nickel and cobalt, which are known to the State of California to cause cancer.

For more information go to www.p65warnings.ca.gov



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