

M308, Pt Temperature Sensor according to DIN EN IEC 60751

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

- Narrow footprint for small diameter environments
- Excellent long term stability and low drift
- High accuracy and interchangeability
- High vibration and shock resistance
- Optimized for welding, brazing and crimping

M-series Pt-RTDs are characterized by long-term stability and excellent precision over a wide temperature range. The M308 element combines the advantages of the M-Series with a very slim size, supporting small probe geometries and compact assemblies.

YAGEO Nexenos 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)	5189502	Plastic bag
Pt1000	F 0.3 (B)	5191296	Plastic bag

The measuring point for the nominal resistance is 5 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

The specified tolerance classes refer to continuous operation.

Class F 0.3 also applies up to +550 °C for short periods.

Temperature Coefficient

TCR = 3850 ppm/K

Response Time

Water (v = 0.3 m/s):
 $t_{0.5} = 0.03$ s
 $t_{0.9} = 0.09$ s

Air (v = 3.0 m/s):
 $t_{0.5} = 1.4$ s
 $t_{0.9} = 3.5$ s

Measuring Current

Pt100 Ω: 1.0 mA
Pt1000 Ω: 0.1 to 0.3 mA
(self-heating has to be considered)

Dimensions and Tolerances in mm

L: 3.3 +0.2 -0.1
W1: 0.8 ±0.05
H: 0.48 ±0.05
LL: 7 ±1.0
Lø: 0.16 ±0.02
W2: 0.4 ±0.1

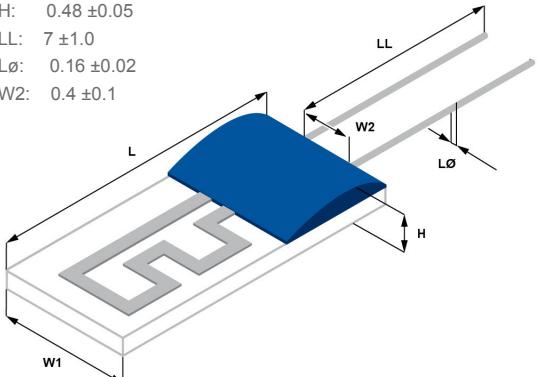


Image for illustration purposes only
Color, shape and forming of fixing drop may vary

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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 DIN EN 60751.

Typical drift of R(0 °C) is 0.04 % after 1000 hours at +500 °C.

Insulation Resistance

> 100 MΩ at 20 °C

Connection Technology

Brazing, Welding, Crimping

Lead Type

Pt clad Ni-wire

Packaging

Plastic bag

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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