Sensor Elements with Ni-Lead Extensions

Temperature range -70 °C to +500 °C

- Excellent long term stability and low drift
- High accuracy and interchangeability
- High vibration and shock resistance
- Broad range of applications

Sensor elements with lead extensions helps to reduced development times in your processes. Elements with stranded wire extensions are available in standard lengths and can be customized to your optimum length for larger requests.

Nominal Resistance R_0 [Ω] (Element)	Tolerance (Element)	Type	Lead Length LL (mm)	Order Number	Packaging
Pt100	F 0.3 (B)	M222	200	5157675	Plastic bag
Pt1000	F 0.3 (B)	M222	200	30200145	Plastic bag
Pt1000	F 0.3 (B)	M310	60	5157677	Plastic bag
Pt1000	F 0.3 (B)	M310	200	5157676	Plastic bag

Temperature Range of Tolerance Class

Tolerance Class F 0.3 (B) -70 °C to +500 °C
Temporary up to +550 °C (up to 50 hours)

Temperature Coefficient

TCR = 3850 ppm/K

Response Time

M222:
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

M310:
Water (v = 0.4 m/s) $t_{0.5}$ = 0.04 s, $t_{0.9}$ = 0.12 s
Air (v = 2 m/s) $t_{0.5}$ = 2.5 s, $t_{0.9}$ = 8 s

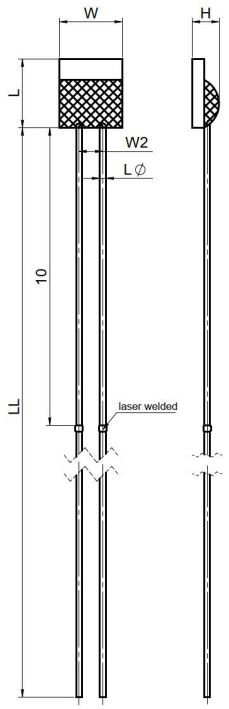
Measuring Current

Pt100 Ω: 0.3 to 1 mA
Pt1000 Ω: 0.1 to 0.3 mA
(self-heating has to be considered)

Dimensions and Tolerances in mm

M222
L: 2.3 +0.2 -0.1
W1: 2.10 ±0.2
H: 0.9 +0.3 -0.2
Lø: 0.2 ±0.02
W2: 0.8 ±0.1

M310
L: 3.0 ±0.15
W1: 1.0 ±0.15
H: 0.8 +0.3 -0.2
Lø: 0.15 ±0.02
W2: 0.5 ±0.1



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Long-Term Stability of the Sensor Element
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.

Self-Heating of the Sensor Element
0.4 K/mW at 0 °C

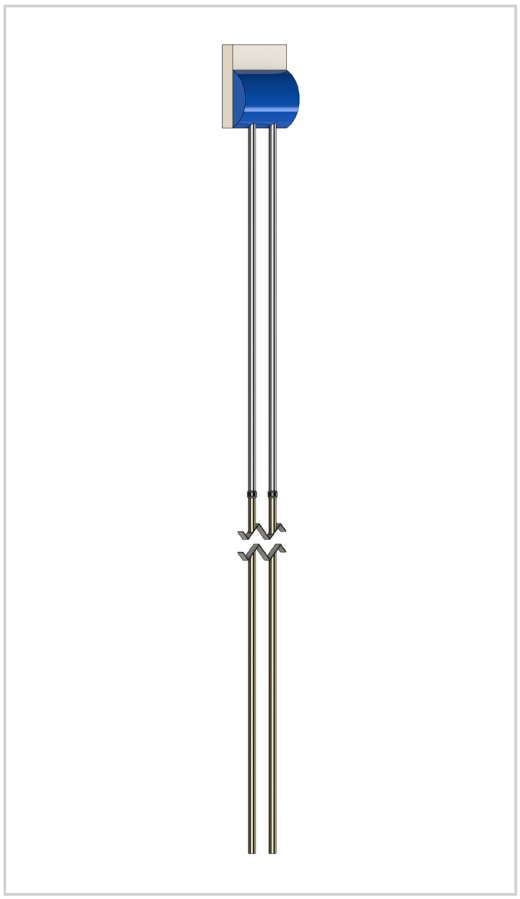
Connection Technology
Crimping, Welding, Soft Soldering, Brazing, Clamping

Wire
Nickel lead extension

Wire Resistance
0.003 Ω/m (0.025 Ω/ft)

Pull Force
M222: 9 N
M310: 7 N

Customized Options available for High Volume Applications
- Extension length
- Sensor element: size and resistance
- Lead wire material



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RoHS compliant

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Mouser Electronics

Authorized Distributor

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