

## T092, Housed Pt Temperature Sensor according to DIN EN 60751

Temperature range -50 °C to +150 °C

- Platinum sensor precision in TO 92 format
- Excellent long term stability
- High accuracy
- High vibration and shock resistance
- Optimized for soldering

The T092 is a Pt-RTD enclosed in an industry-standard TO housing and is characterized by a linear resistance vs. temperature response (as per DIN EN 60751), interchangeability, high long-term stability and accuracy. It offers an optimal price performance ratio for large volume applications, such as HVAC and industrial equipment.

Nominal Resistance R <sub>0</sub> [Ω]	Tolerance Class	Order Number	Packaging
Pt100	F 0.3 (Class B)	32209210	VCI-Plastic bag
Pt1000	F 0.3 (Class B)	32209220	VCI-Plastic bag

### Temperature Range of Tolerance Class

Tolerance Class F 0.3 (B)      -50 °C to +150 °C  
The specified tolerance classes refer to continuous operation.

### Temperature Coefficient

TCR = 3850 ppm/K

### Response Time

Water (v = 0.4 m/s):              t<sub>0.5</sub> = 0.7 s  
    t<sub>0.9</sub> = 2 s  
  
Air (v = 2 m/s):                      t<sub>0.5</sub> = 8 s  
    t<sub>0.9</sub> = 26 s

### Measuring Current

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

### 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 0.06 % after 1000 hours at +150 °C.

### Self-Heating

Pt 100: 0.4 K/mW at 0 °C  
Pt 1000: 0.2 K/mW at 0 °C

### Specific Volume Resistance

20 °C = 5 x 10<sup>16</sup> Ωcm    150 °C = 5 x 10<sup>13</sup> Ωcm

### Physical Data For Housing

Material: duroplastic  
Coefficient of thermal expansion: 13 x 10<sup>-6</sup> 1/K  
Thermal Conductivity: 0.65 W/mK  
Moisture absorption: 0.5 % (P.C.T. :121 °C, 24 hours)

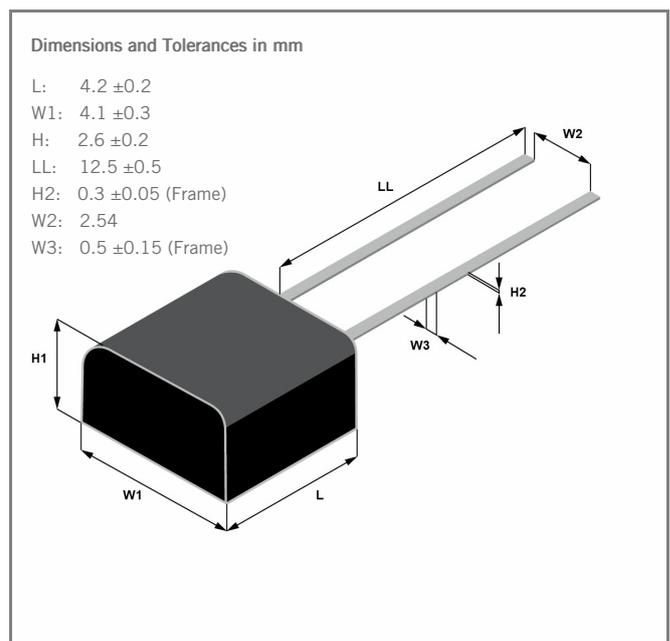


Image for illustration purposes only

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### Flammability

UL94-V0

### Soldering Connection

Cu alloy Sn/Pb coating

### Connection Technology

Soft Soldering

### Packaging

VCI-Plastic bag

Alternative packaging forms on request

### Storage Life

9 months (in original packaging).

Nitrogen atmosphere recommended.

### Note

Other tolerances and values of resistance are available on request.

### California Proposition 65



## WARNING

WARNING: This product can expose you to chemicals including carbon black, which is known to the State of California to cause cancer.

For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)



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Document: 20002221296 | Part 001 | Version 02 | Status: 09/2021

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