Wide range NanoPrint temperature sensor

- Likely, the world´s smallest temperature sensor, when size matters -

Description

The world's **smallest commercially** available **temperature sensor**. A highly integrable nano sensor printed directly on your target.
With a compact size of just 10 x 10 nm², the temperature sensor features the fastest possible response time. This sensor delivers exceptional performance and flexibility for a wide range of applications.

Features

- Wide temperature range: -250 °C to +250 °C
- Response time: << ms
- Long term stable
- Printable on every component
- Ideal thermal coupling
- Low thermal capacity
- Minimal Sensor footprint: 10 x 10 nm²
- Available as full/ half/ quarter bridge stain
- Adjustable base resistance
- Fully encapsulated sensor and leeds

Application flexibility

Ideal for tailored solutions in multiple industries, including

- medical
- automotive
- aerospace
- industrial automation

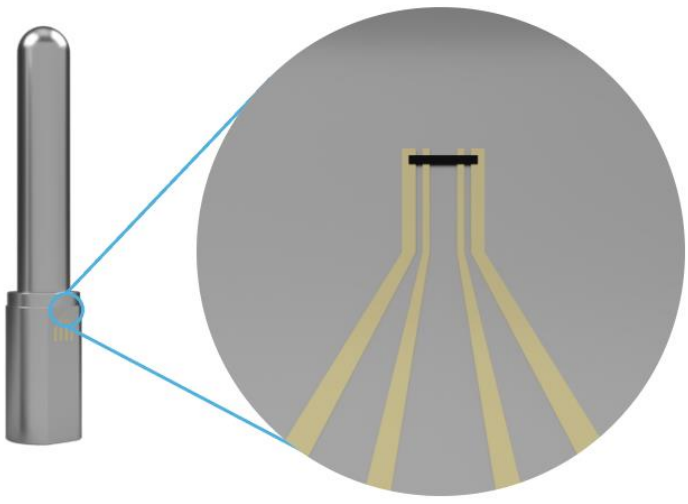

Figure 1: NanoPrint temperature sensor directly printed on an EV charging pin for use in 4-point probe measurement

digid GmbH
Robert-Koch-Str. 30a
55129 Mainz
Germany
www.digid.com
info@digid.com

Technical Specifications

General Specifications		
Thermal characteristics	ΔR/ΔT	Calibration curve
Configuration options	Available as Wheatstone bridge in quarter-, half-, and full- bridge configurations	
Adjustable base resistance	The sensor's base resistance is customizable to meet specific customer requirements	
Flush-Mounted Design available	Allowing direct contact with the measurement surface for improved thermal response and accuracy	
Connection Type	2-wire, 3-wire, or 4-wire configurations to minimize lead resistance effects and enhance measurement accuracy	
Encapsulation	Adjustable to hazardous and harsh environments	
System Specifications		
Temperature range	°C	-250 to +250
Temperature class		T2
Dimensions	nm	Min. 10 x 10
Response time	ms	<10
Thermal capacity	J/kgK	~400

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