

# TEMPERATURE SENSOR microRTD: SMALL – THIN – ACCURATE

## Our innovative temperature sensor: as small as it gets

The ultrathin temperature sensor element widens the application space for accurate temperature sensing: A thickness of ~40  $\mu\text{m}$  in combination with a small footprint down to 0.6 mm  $\times$  0.3 mm enables positioning in constraint spots and in between tiny interface layers. The flexible, bendable structure allows for conformal contact over a wide temperature range of -40  $^{\circ}\text{C}$  up to 120  $^{\circ}\text{C}$ .

## Accuracy, fast response and long-term stability



Accuracy:  $\pm 0.1$   $^{\circ}\text{C}$   
Resistances: 1000  $\Omega$ , 2500  $\Omega$   
Response time:  $t_{0.9} = 0.1$  sec (air flow)



Storage: drift of  $R_0 < 0.2\%$  (500 hours at 85  $^{\circ}\text{C}$  / 85 % RH)  
Cycle test: drift of  $R_0 < 0.2\%$  (1000 temperature cycles -40  $^{\circ}\text{C}$ /120  $^{\circ}\text{C}$  for 300 s)



Available sizes	0402	1.00 mm $\times$ 0.50 mm	1000 / 2500 $\Omega$
and resistances:	0201	0.60 mm $\times$ 0.30 mm	1000 $\Omega$

Application support and sample requests:  
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## Application areas



- Advanced electronics
- Lab-on-chip
- Advanced packaging
- On-skin temperature devices
- Lifestyle applications
- Wearables
- EV charging
- Battery monitoring



## About us: Heraeus Nexensos

Heraeus Nexensos is the largest global manufacturer of Pt RTDs with over 73 million sensors sold in 2020  
Strong innovation power with R&D and application engineering teams in Germany and China  
Global production footprint: two production sites in Europe and Asia