



## RealProbe<sup>Temp</sup>



### RTD Platinum Sensor in Stainless Steel Probe



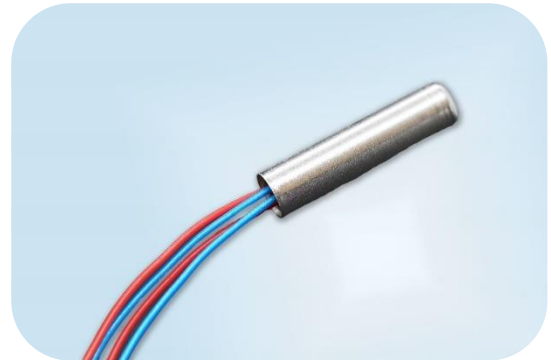
For outstanding thermal coupling and probe assemblies



#### Benefits & characteristics

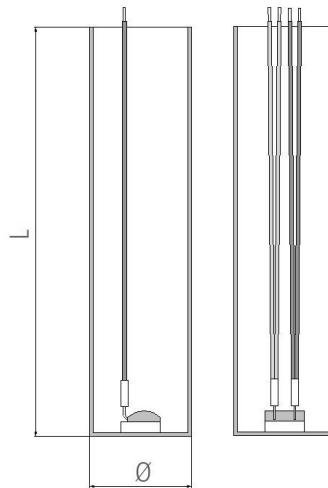


- Very good thermal coupling  
– very small immersion depths possible
- Suitable for applications with limited space and high temperature gradients
- Resistant against vibrations (verified according to IEC 60751)
- Fast response time
- Customer-specific solutions available upon request



#### Illustration <sup>1)</sup>

The RealProbe<sup>Temp</sup> is a pre-assembled component (semi-finished product) for the production of temperature probes.



<sup>1)</sup> for actual size see dimensions in order information



## Technical Data



Operating temperature range: -50 °C to +200 °C



Nominal resistance:<sup>\*</sup>  
100 Ω at 0 °C  
500 Ω at 0 °C  
1000 Ω at 0 °C



Characteristics curve:<sup>\*</sup> 3850 ppm/K



Long-term stability: < 0.04 % at 1000 h at maximal operating temperature

Response time: < 1.5 s (in water, 0.4 m/s, assembled, immersion depth 80 mm to 100 mm)



Maximal allowed pressure: 100 bar



Electrical strength: 1000 V<sub>DC</sub>, 1 s

Tolerance class: <sup>*</sup>	<b>iST reference</b>	
(dependent on temperature range)	IEC 60751 F0.15	A
	IEC 60751 F0.3	B

Connection:<sup>\*</sup> 4 x AWG 28/7, Cu/Ag-stranded wire, PTFE-insulated, 5 mm stripped

Wire lengths:<sup>\*</sup> 385 mm or 800 mm

Wire color coding:<sup>\*</sup> class A: 2 x red, 2 x white; class B: 2 x red, 2 x blue

Deep drawing sheath:<sup>\*</sup> material: 1.4404 / 316L, wall thickness: 0.4 mm, length: 25 mm, outer Ø: 6 mm

Recommended applied current:<sup>2)</sup> 1 mA at 100 Ω

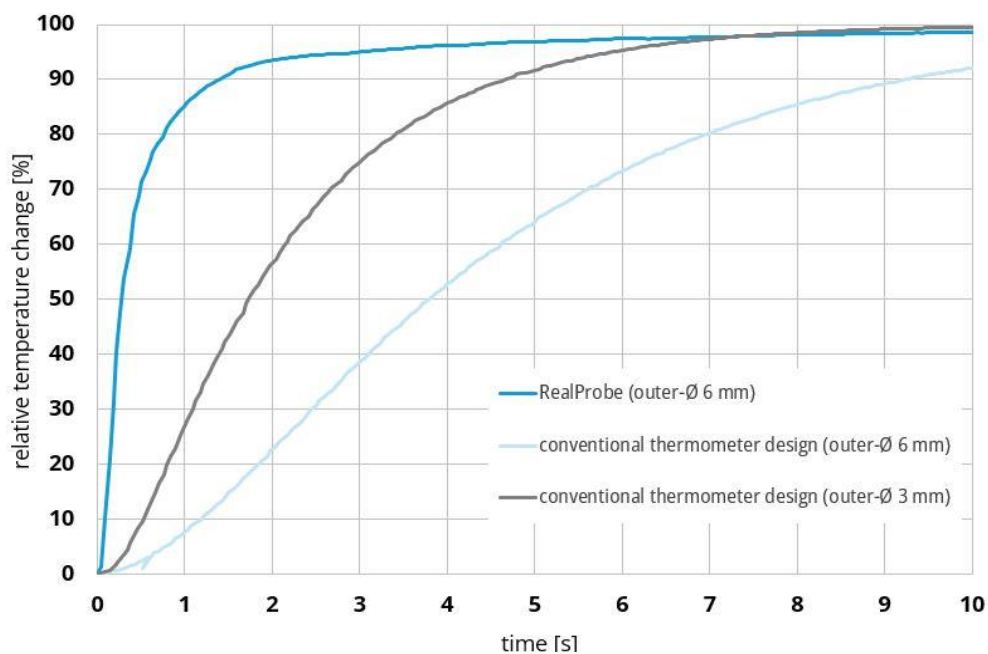
<sup>2)</sup>Self-heating must be considered 0.5 mA at 500 Ω

0.3 mA at 1000 Ω

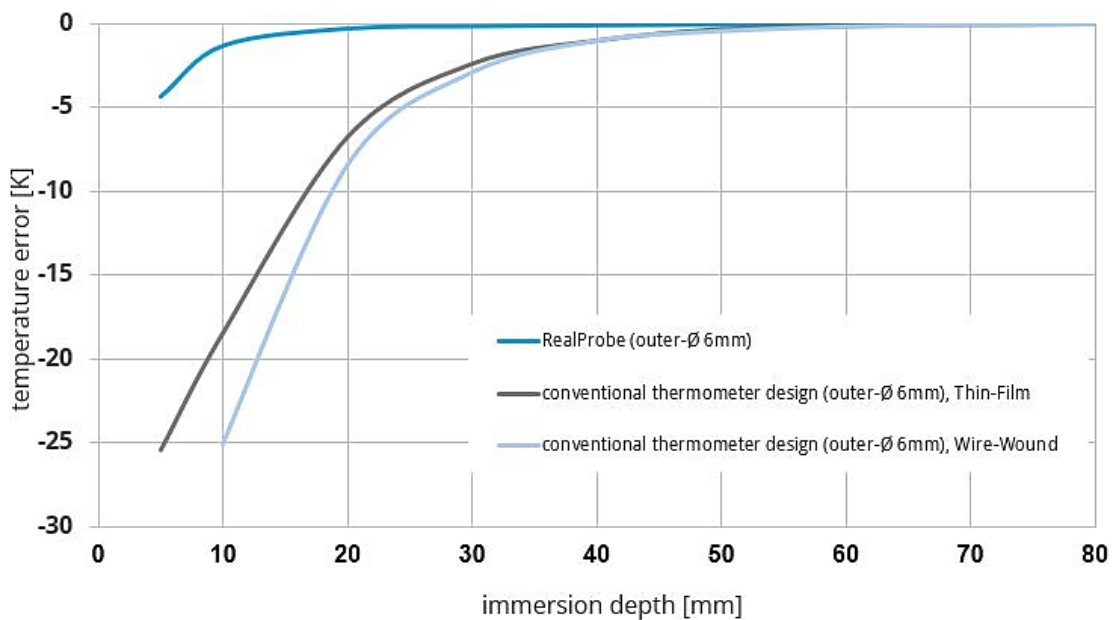
<sup>\*</sup> Customer-specific alternatives available



## Measurements of comparison



Response time of RPT compared with standard RTDs



Minimized immersion depth compared with standard RTDs

## Order Information

Nominal Resistance	Size	Dimensions ( $\emptyset$ x L in mm) $\emptyset \pm 0.1$ mm, L $\pm 0.3$ mm	Class*	Order code	Product name (Secondary reference)	Wire length in mm	Special
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### 4x AWG 28/7, Cu/Ag-stranded wire, PTFE-insulated, 5 mm stripped

100 $\Omega$	625	6.0 x 25.0	F0.15 (class A)	101931	RPT0K1.625.2K.A.385-4.H	385	
100 $\Omega$	625	6.0 x 25.0	F0.3 (class B)	101932	RPT0K1.625.2K.B.385-4.H	385	
100 $\Omega$	625	6.0 x 25.0	F0.15 (class A)	101983	RPT0K1.625.2K.A.1175-4.H	1175	
100 $\Omega$	625	6.0 x 25.0	F0.3 (class B)	On request	RPT0K1.625.2K.B.1175-4.H	1175	
500 $\Omega$	625	6.0 x 25.0	F0.15 (class A)	101933	RPT0K5.625.2K.A.385-4.H	385	
500 $\Omega$	625	6.0 x 25.0	F0.3 (class B)	On request	RPT0K5.625.2K.B.385-4.H	385	
1000 $\Omega$	625	6.0 x 25.0	F0.15 (class A)	101934	RPT1K0.625.2K.A.800-4.H	800	
1000 $\Omega$	625	6.0 x 25.0	F0.3 (class B)	101936	RPT1K0.625.2K.B.800-4.H	800	

## Additional Documents

Application Note

Document name: ATP\_E



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