

## Platinum Resistance Temperature Detector

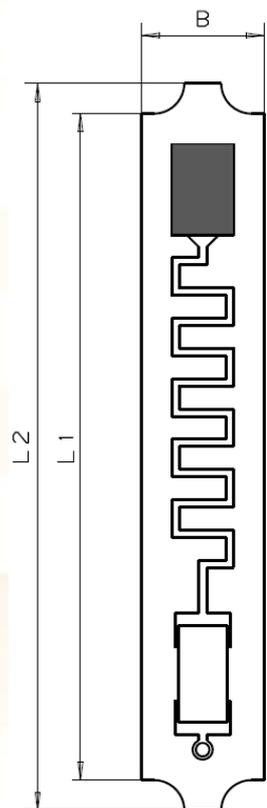
## PCB 2225/ 2240 (0805)

This platinum temperature sensor on a printed circuit board has been specially designed for use in calorimetry. When designing these sensors, the stringent requirements of this sector with regard to precision, long-term stability, cost minimisation as well as the option for fully automatic further processing were of prime concern.

The temperature sensor in an SMD model forms the measurement active element on a PCB. The chip is connected with the terminal faces via meandering circuit board conductors in order to reduce heat dissipation and to prevent corruption of the measuring results. As a cable set sensor, it is suitable for a wide range of applications within a temperature range of - 40°C to 150°C.

Nominal Resistance R <sub>0</sub>	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Ordner No.	Dimensions in mm			FC Type
				L1	L2 +1 -2	B -0,2	
100	Class B	F 0.3	30 201 075	22	24	2,5	0805
500			30 201 073	22	24	2,5	0805
1000			30 201 063	22	24	2,5	0805
100			30 201 071	22	24	4,0	0805
500			30 201 069	22	24	4,0	0805

<b>Specification</b>	DIN EN 60751	
<b>Tolerance classes</b>	Class B	
<b>Temperature range</b>	- 40°C to 150°C	
<b>Temperature coefficient</b>	TC = 3850 ppm/K	
<b>Long-term stability</b>	≤ 0.1 K after 1000 h at 150°C (energized with Pt 100: 1.0mA; Pt 500: 0.7mA; Pt 1000: 0.3mA)	
<b>Measuring current</b>	100Ω: 0.3 to 1.0mA 500Ω: 0.1 to 0.7mA 1000Ω: 0.1 to 0.3mA (self heating has to be considered)	
<b>Self-heating</b>	0.15 K/mW in ice water	
<b>Track Resistance</b>	Meander: 0.06Ω	
<b>Temperature change resistance</b>	≤ 0.1 K after 1000 change 0°C/150°C in air	
<b>Contact</b>	Cu connection pad with chem. Sn surface	
<b>Soldering</b>	1) Chip is soldered lead free 2) Connection pads are ready for lead free soldering	
<b>Ambient conditions</b>	Use unprotected only in dry environments	
<b>Response time</b>	water (v= 0.4m/s):	t <sub>0,5</sub> = 0.05s    t <sub>0,9</sub> = 0.10s air (v=2m/s):            t <sub>0,5</sub> = 1.5s        t <sub>0,9</sub> = 5.0s
<b>Packaging</b>	Supplied in plastic container	
<b>Storage life</b>	12 months	
<b>Note</b>	Other tolerances and values of resistance are available on request.	



We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.



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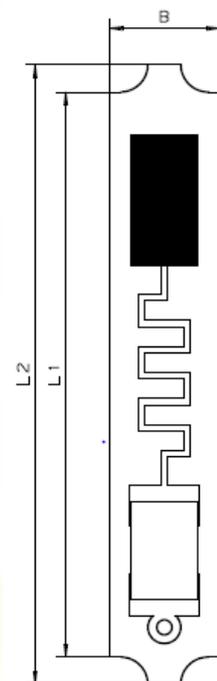
PCB 1325.4 (0805)

This platinum temperature sensor on a printed circuit board has been specially designed for use in calorimetry. When designing these sensors, the stringent requirements of this sector with regard to precision, long-term stability, cost minimisation as well as the option for fully automatic further processing were of prime concern.

The temperature sensor in an SMD model forms the measurement active element on a PCB. The chip is connected with terminal faces with a thin conductive path in order to reduce heat dissipation and to prevent corruption of the measuring results. As a cable set sensor, it is suitable for a wide range of applications within a temperature range of - 40°C to 150°C.

Nominal Resistance $R_0$	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Ordner No.	Dimensions in mm			FC Type
				L1	L2 +1 -2	B -0,2	
1000	B	F 0.3	30 201 106	13	15	2,5	0805
500	B	F 0.3	30 201 107	13	15	2,5	0805

<b>Specification</b>	DIN EN 60751
<b>Tolerance classes</b>	Class B
<b>Temperature range</b>	- 40°C to 150°C
<b>Temperature coefficient</b>	TC = 3850 ppm/K
<b>Long-term stability</b>	≤ 0.1 K after 1000 h at 150°C energized with: Pt 1000: 0.3 mA Pt 500: 0.7 mA
<b>Measuring current</b>	1000Ω: 0.1 to 0.3mA 500Ω: 0.1 to 0.7mA
<b>Self-heating</b>	0.15 K/mW in ice water
<b>Track Resistance</b>	Meander: 0,07Ω
<b>Temperature change resistance</b>	≤ 0.1 K after 1000 change 0°C/150°C in air
<b>Contact</b>	Cu connection pad with chem. Sn surface
<b>Soldering</b>	1) Chip is soldered lead free 2) Connection pads are ready for lead free soldering
<b>Ambient conditions</b>	Use unprotected only in dry environments
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<b>Packaging</b>	Supplied in plastic container
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