

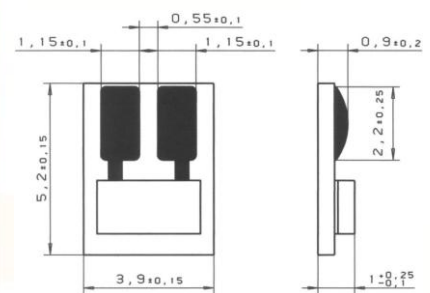
Platinum Resistance Temperature Detector

PCB 540

The platinum temperature sensor PCB 540 of the family of sensors on PCB is particularly suitable for temperature measurement in boilers and baths. A temperature sensor of SMD flip-chip design, accommodated on a small PCB, is used as measuring element. With the aid of the two soldering pads on the PCB, two connecting wires can be directly soldered in an automated process. Assembled as cable sensor, it is suitable for a great variety of applications in a temperature range from -30°C to 135°C.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
500 Ohm at 0°C	Class B	F 0.3	30 201 079

Specification	DIN EN 60751
Temperature range	-30°C to 135°C Tolerance Class B: -30°C up to +135°C
Temperature coefficient	TC = 3850 ppm/K
Long-term stability	≤ 0.1 K after 1000h at 130°C current: Pt 100: 3mA; Pt 500: 1mA; Pt 1000: 1mA
Measuring current	0.1 to max. 0.7 mA (self heating has to be considered)
Self heating	0.1 K/mW
Response time	Air flow (v= 1m/s): $t_{0.5} = 5.8s$ $t_{0.9} = 22.5s$ Air flow (v= 1.5m/s): $t_{0.5} = 4.7s$ $t_{0.9} = 18.9s$
Temperature change resistance	≤ 0.1 K after 1000 change 0°C / 130°C in air
Contact	Cu connection pad, chemically tinned and provided with SnPb solder
Environmental conditions	unhoused for dry environments only
Packaging	Belts
Storage life	12 months
Note	Other tolerances and values of resistance are available on request.



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