

Housed Platinum Resistance Temperature Detector

SOT 223

The Pt1000 PRTD in a standard SOT 223 housing is characterized by its standardized signal according to DIN EN 60751 (according to IEC 751), interchangeability, high long time stability and accuracy. It is designed for automatic mounting in electronic applications and serves e. g. for temperature compensation on PCBs. It is equipped with a cooling fin improving thermal contact to the PCB.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
1000 Ohm at 0°C	Class 2B	F 0,6	32 209 116

Other resistances and tolerances on request!

Specification DIN EN 60751

(according to IEC 751)

Temperature range -50°C to +150°C

Tolerance Class 2B: -50°C up to +150°C

Temperature coefficient TCR = 3850 ppm/K

Soldering connection Cu alloy with Sn coating

Long-term stability max. R₀-drift 0.04% after 1000 h at 150°C

max. R₀-drift 0.04% after 1000 h at -55°C

Resistance to soldering heat

soldering heat max. deviation 0.03% after 10s at 260°C

Self heating 0.049 K/mW at 0°C;

mounted on PCB 0.2 K/mW at 0°C; package only

Response time water current (v = 0.4 m/s): $t_{0.5} = 0.45$ s

 $t_{0.9} = 1.20s$ air stream (v = 2 m/s): $t_{0.5} = 8.0s$

 $t_{0.9} = 26.0s$

Measuring current 1000Ω : 0.1 to 0.3mA

(self heating has to be considered)

Flammability UL 94-V0

Specific volume

resistance 20° C: 5×10^{16} Ωcm 150° C: 5×10^{13} Ωcm

Physical data material: duroplastic

of housing coefficient of thermal expansion: 13 x 10⁻⁶ 1/°C

thermal conductivity: 0.65 W/mK

moisture absorption: 0.5% (P.C.T.: 121°C, 24h)

Storing information \leq 1 year (in dry environments) for best solderability

Note 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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