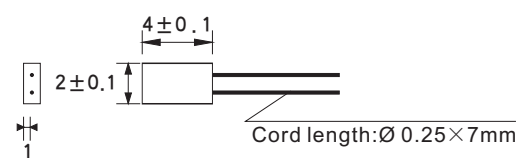
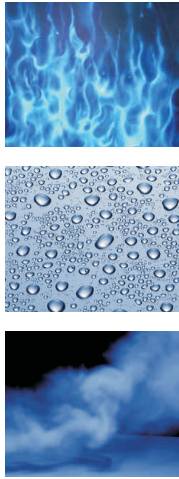


Platinum Temperature Sensor Pt200 B

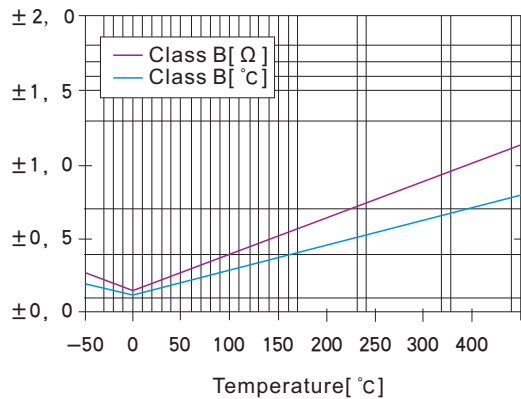
Technical Data

Resistance at 0°C	200
Temperature coefficient (0°C up to 100°C)	$3.77 \cdot 10^{-3} K^{-1}$
Tolerance class to DIN EN 60751	B
Operating temperature range	-50°C up to 1000°C
Measurement current (DC) at 25°C	0.5mA
Maximal permissible peak current (DC) at 25°C	1.5mA
Insulation resistance	>10M
Self-heating at 0°C	<0.5K/mW
Thermal response time	$T_{0.5}=0.07s$ $T_{0.9}=0.3s$
Flowing water (v=0.2m/s)	$T_{0.5}=6s$
Flowing air (v=1 m/s)	$T_{0.9}=20s$
Resistance value at 0°C	200.00 ±0.24
100°C	277.194 ±0.61
Maximal Resistance Change at UCT 250h	<0.1%

Leads	PT
Specification	DIN EN 60751
Operating conditions	Unprotected application only in dry environments
Technology	Advanced thin-film-technology (ceramic carrier with a structured platinum layer, covered with a passivating layer)
Conformity	2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)
	



Functional performance according to DIN EN 60751



Temperature range of -50 °C up to 0°C:
 $R_t = R_0 \cdot (1 + A \cdot t + B \cdot t^2 + C \cdot (t - 100) \cdot t^3)$

Temperature range of 0°C up to 400°C:
 $R_t = R_0 \cdot (1 + A \cdot t + B \cdot t^2)$

Tolerance class B to DIN en60751:

Whereby:

R_t ...Resistance[Ω] at temperature t

R_0 ...Resistance[Ω] at 0°C

t...temperature[°C]

Δt ...Permissible temperature deviation at t[°C]A

$A = 3.92 \cdot 10^{-3} \text{ } ^\circ\text{C}^{-1}$

$B = -6.03 \cdot 10^{-7} \text{ } ^\circ\text{C}^{-2}$

$C = -6 \cdot 10^{-12} \text{ } ^\circ\text{C}^{-4}$

Fields of application

- Industrial electronics
- Automotive electronics
- Energy and environmental engineering

Ordering infoemation

Please use the following code:

Construction		Class of Temperature range	Material of accuracy wire	connection [°C]
Code	Pt200	B	Pt	-50/1000

Other classes of accuracy and wire lengths are

