

RTD Tolerances, Classes & Comparisons

Platinum RTD Tolerance Values

Temperature °C	Resistance Value Ω	Tolerance DIN-IEC-751	
		Class A °C (Ω)	Class B °C (Ω)
-200	18.52	±0.55-(±0.24)	±1.3-(±0.56)
-100	60.26	±0.35-(±0.14)	±0.8-(±0.32)
0	100.00	±0.15-(±0.06)	±0.3-(±0.12)
100	138.51	±0.35-(±0.13)	±0.8-(±0.30)
200	175.86	±0.55-(±0.20)	±1.3-(±0.48)
300	212.05	±0.75-(±0.27)	±1.8-(±0.64)
400	247.09	±0.95-(±0.33)	±2.3-(±0.79)
500	280.98	±1.15-(±0.38)	±2.8-(±0.93)
600	313.71	±1.35-(±0.43)	±3.3-(±1.06)
650	329.64	±1.45-(±0.46)	±3.6-(±1.13)

RTD Tolerance Class Definitions

DIN class A: $\pm [(0.15 + 0.002 | t |) \text{ } ^\circ\text{C}$

DIN class B: $\pm [(0.30 + 0.005 | t |) \text{ } ^\circ\text{C}$

RTD Resistance Wire Comparisons

Element Metal	Temperature Range	Benefits	Base Resistance	TCR (Ω/Ω/°C)
Platinum	-260 to 850°C (-436 to 1562°F)	Best stability, good linearity	100 Ω at 0°C	0.00385 (DIN-IEC-761), 0.003916 (JIS 1604-1981)
Copper	-100 to 260°C (-148 to 500°F)	Best linearity	10 Ω at 25°C	0.00427
Nickel	-100 to 260°C (-148 to 500°F)	Low cost, High Sensitivity	120 Ω at 0° C	0.00672