Heraeus

Platinum Resistance Temperature Detector

C 420

The C series thin-film PRTDs combine the ideal curve characteristics of ceramic wire-wound RTDs with the vibration resistance of glass wire-wound RTDs and represent an excellent alternative to wire-wound RTDs. They are characterized by high long-term stability, excellent temperature shock resistance and a wide temperature range of -196°C to +150°C. The deviation from the DIN EN 60751 (according to IEC 751) characteristic curve is minimal over the entire temperature range, they show no hysteresis. These features make them best suited for applications in aerospace, chemical and power generation plants and analytical equipment.

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 B	F 0.3	32 207 502

The measuring point for the nominal resistance is defined at 8mm from the end of the sensor body.

Specification	DIN EN 60751					
Nominal resistance	1000Ω at 0°C					
Temperature range	-196°C to +150°C Tolerance Class B: -196°C bis +1	50°C	/	/ /		
Temperature coefficient	TC = 3850 ppm/K	111	1,9±0,15		1+0;3	
Leads	AgPd- wire	11/		пппп		
Lead lengths (L)	15mm ±1mm				940,15	
Long-term stability	max. R0-Drift 0.03% after 1000 h at 150°C					
Environmental conditions	unhoused for dry environments only					
Vibration resistance	at least 40g acceleration at 10 to 2 depends on installation	2000 Hz,				
Shock resistance	at least 100g acceleration with 8m half sine wave, depends on install					
Insulation resistance	> 100 MΩ at 150°C			ļ		
Self heating	0.3 K/mW at 0°C		Ø0,25±0.02			
Response time	water current (v= 0.4m/s):	t0.5 = 0.08s t0.9 = 0.25s				
	air stream (v= 2m/s):	$t_{0.9} = 0.253$ $t_{0.9} = 3.5$ $t_{0.9} = 15.0$ s		RoHS		
Measuring current	1000Ω: 0.1 to 0.3 mA (self heating has to be considered)					
Note	Other tolerances, values of resista wire lengths are available on requ					

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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