



Platinum Temperature Sensors

8W – Product Series

Temperature Range: –200°C...+850°C

Platinum temperature sensor elements with wire connections

Technical Data

Specification:	DIN EN 60751	
Temperature range:	-200°C to +850°C	
Temperature Coefficient:	TCR = 3850 ppm/K	
Tolerance Classes:	F 0.1 (Class Y)	-50°C to +150°C
	F 0.15 (Class A)	-90°C to +300°C
	F 0.3 (Class B)	-200°C to +850°C
	F 0.6 (Class C)	-200°C to +850°C
	1/5 F 0.3 (Class K)	on request
	1/10 F 0.3 (Class K)	on request
Leads:	Platinum wire connection ($\varnothing = 0.2$ mm) Recommended connection technology: Soldering, Welding, Crimping	
Lead Lengths:	7 mm	



INNOVATIVE SENSOR TECHNOLOGY

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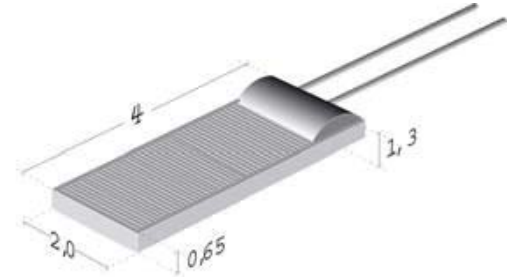
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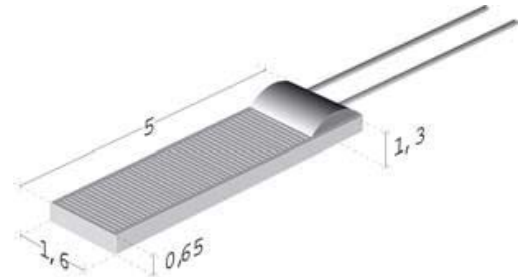
8W 420

Dimensions, LxW:	4.0 x 2.0 mm
Nominal Resistance at 0°C (ohm):	200
Measuring Current (mA):	200 Ω : 0.8



8W 516

Dimensions, LxW:	5.0 x 1.6 mm	
Nominal Resistance at 0°C (ohm):	100/1000	
Self Heating (mK):	Water (v= 0 m/s)	$\Delta T_w = 1.3$ at 0°C
	Air (v= 0 m/s)	$\Delta T_a = 14$ at 0°C
Response Time (s):	Water (v= 0.4 m/s)	$T_{0.5} = 0.25$
		$T_{0.63} = 0.3$
		$T_{0.9} = 0.7$
	Air (v= 1 m/s)	$T_{0.5} = 5.5$
		$T_{0.63} = 7.5$
		$T_{0.9} = 16$
Measuring Current (mA):	100 Ω : 1	
	1000 Ω : 0.3	



Order Example:

P	1K0.	516.	8	W.	B.	007
1	2	3	4	5	6	7

1. Material Identification = Platinum temperature sensor
2. Resistance Value in ohm = $1000\Omega / 0^{\circ}\text{C}$
3. Chip Dimension = 2.3×2.0 mm
4. Temperature Range = -200°C to $+850^{\circ}\text{C}$
5. Extension = Wire Connections
6. Tolerance Class = DIN EN 60751 F 0.3 (former Class B)
7. Connection length = 7 mm



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