



Platinum Temperature Sensors

T – Product Series

Temperature Range: –200°C...+600°C

Platinum temperature sensor elements with thin substrates (0.254 mm) for fast response time

Technical Data

Specification: DIN EN 60751

Temperature range: -200°C to +600°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 +600°C
	F 0.6 (Class C)	-200°C to +600°C
	1/5 F 0.3 (Class K)	on request
	1/10 F 0.3 (Class K)	on request

Leads: Platinum-coated nickel wire ($\varnothing = 0.2$ mm)
Recommended connection technology: Soldering, Welding, Crimping

Lead Lengths: 10 mm

Long-term stability: Max. Drift = Less than 0.03% after 1000h at max. operating temperature

Note: Other connection lengths and chip sizes on request



INNOVATIVE SENSOR TECHNOLOGY

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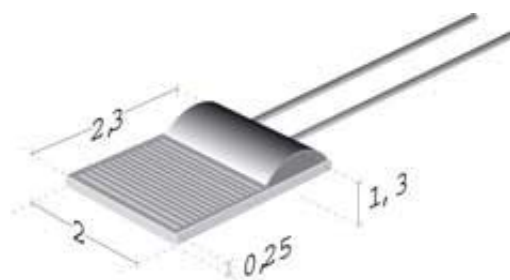
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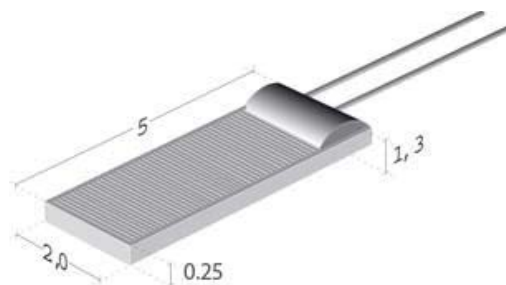
T 232

Dimensions, LxW:	2.3 x 2.0 mm	
Nominal Resistance at 0°C (ohm):	100/500/1000	
Self Heating (mK):	Water (v= 0 m/s)	$\Delta T_w = 2.5$ at 0°C
	Air (v= 0 m/s)	$\Delta T_a = 25$ at 0°C
Response Time (s):	Water (v= 0.4 m/s)	$T_{0.5} = 0.15$
		$T_{0.63} = 0.2$
		$T_{0.9} = 0.55$
	Air (v= 1 m/s)	$T_{0.5} = 4.5$
		$T_{0.63} = 6$
		$T_{0.9} = 12$
Measuring Current (mA):	100 Ω :	1
	500 Ω :	0.5
	1000 Ω :	0.3



T 520

Dimensions, LxW:	5.0 x 2.0 mm	
Nominal Resistance at 0°C (ohm):	100	
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)	$T_{0.5} = 0.25$
		$T_{0.63} = 0.3$
		$T_{0.9} = 0.75$
	Air (v= 1 m/s)	$T_{0.5} = 6$
		$T_{0.63} = 8.5$
		$T_{0.9} = 18$
Measuring Current (mA):	100 Ω :	1



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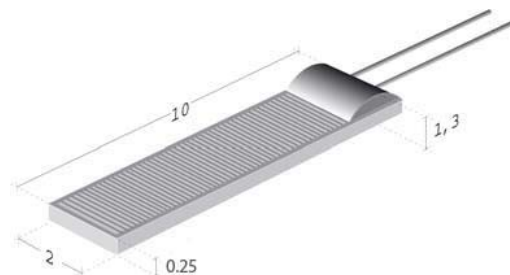
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T 102

Dimensions, LxW:	10.0 x 2.0 mm	
Nominal Resistance at 0°C (ohm):	1000	
Self Heating (mK):	Water (v= 0 m/s)	$\Delta T_w = 0.7$ at 0°C
	Air (v= 0 m/s)	$\Delta T_a = 10$ at 0°C
Response Time (s):	Water (v= 0.4 m/s)	$T_{0.5} = 0.33$
		$T_{0.63} = 0.4$
		$T_{0.9} = 0.85$
	Air (v= 1 m/s)	$T_{0.5} = 7.5$
		$T_{0.63} = 10.5$
		$T_{0.9} = 20$
Measuring Current (mA):	1000 Ω : 0.3	



Order Example:

P	1K0.	232.	6	W.	B.	010.	T
1	2	3	4	5	6	7	8

1. Material Identification = Platinum temperature sensor
2. Resistance Value in ohm = 1000 Ω / 0°C
3. Chip Dimension = 2.3 x 2.0 mm
4. Temperature Range = -200°C to +600°C
5. Extension = Wire Connections
6. Tolerance Class = DIN EN 60751 F 0.3 (former Class B)
7. Connection length = 10 mm
8. Special = Substrate thickness 0.254 mm



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