



Platinum Temperature Sensors

6W – Product Series

Temperature Range: $-200^{\circ}\text{C} \dots +600^{\circ}\text{C}$

Platinum temperature sensors elements with wire connections

Technical Data

Specification:	DIN EN 60751	
Temperature range:	-200°C to $+600^{\circ}\text{C}$	
Temperature Coefficient:	TCR = 3850 ppm/K	
Tolerance Classes:	F 0.1 (Class Y)	-50°C to $+150^{\circ}\text{C}$
	F 0.15 (Class A)	-90°C to $+300^{\circ}\text{C}$
	F 0.3 (Class B)	-200°C to $+600^{\circ}\text{C}$
	F 0.6 (Class C)	-200°C to $+600^{\circ}\text{C}$
	1/5 F 0.3 (Class K)	on request
	1/10 F 0.3 (Class K)	on request
Leads:	Platinum-coated nickel wire ($\varnothing = 0.2\text{ mm}$) Recommended connection technology: Soldering, Welding, Crimping	
Lead Lengths:	7/10/15 mm	
Long-term stability:	Max. Drift = Less than 0.03% after 1000h at max. operating temperature	
Note:	Other connection lengths on request	



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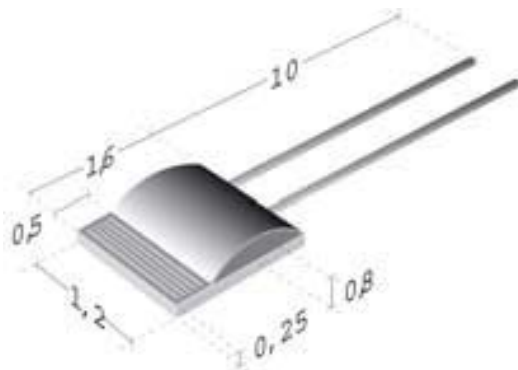
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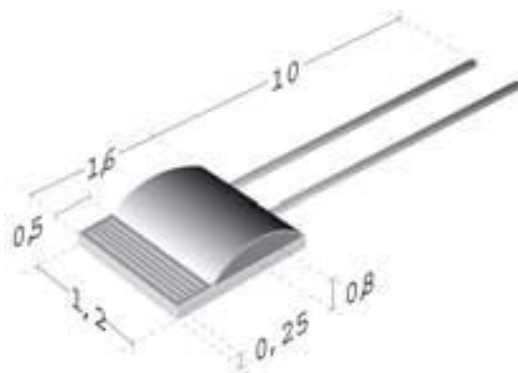
6W 161

Chip Dimensions, L x W:	1.6 x 1.2 mm	
Nominal Resistance at 0°C (ohm) :	100/500/1000	
Self Heating (mK):	Water ($v = 0 \text{ m/s}$)	$\Delta T_w = 8.3 \text{ at } 0^{\circ}\text{C}$
	Air ($v = 0 \text{ m/s}$)	$\Delta T_a = 56 \text{ at } 0^{\circ}\text{C}$
Response Time (s):	Water ($v = 0.4 \text{ m/s}$)	$T_{0.5} = 0.05$
		$T_{0.63} = 0.08$
		$T_{0.9} = 0.18$
	Air ($v = 1 \text{ m/s}$)	$T_{0.5} = 1$
		$T_{0.63} = 1.2$ $T_{0.9} = 2.5$
Measuring Current (mA):	100 Ω : 1	
	500 Ω : 0.5	
	1000 Ω : 0.3	



7W 161

Chip Dimensions, L x W:	1.6 x 1.2 mm	
Nominal Resistance at 0°C (ohm) :	100/1000	
Self Heating (mK):	Water ($v = 0 \text{ m/s}$)	$\Delta T_w = 8.3 \text{ at } 0^{\circ}\text{C}$
	Air ($v = 0 \text{ m/s}$)	$\Delta T_a = 56 \text{ at } 0^{\circ}\text{C}$
Response Time (s):	Water ($v = 0.4 \text{ m/s}$)	$T_{0.5} = 0.05$
		$T_{0.63} = 0.08$
		$T_{0.9} = 0.18$
	Air ($v = 1 \text{ m/s}$)	$T_{0.5} = 1$
		$T_{0.63} = 1.2$ $T_{0.9} = 2.5$
Measuring Current (mA):	100 Ω : 1	
	1000 Ω : 0.3	
Note:	Pure platinum wire, 0.2 mm diameter	



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