Platinum Temperature Sensors

4U – Product Series

TEMPERATURE

Temperature Range: -200°C...+400°C

Platinum temperature sensor elements with inverse wire connections

Advantages: - Better isolation against mounting area

- Vertical wires can be carried away on chip area
- Perfect for limited space packaging

Technical Data

Specification:	DIN EN 60751
Temperature range:	-200°C to +400°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 +400°C F 0.6 (Class C) -200°C to +400°C 1/5 F 0.3 (Class K) on request 1/10 F 0.3 (Class K) on request
Leads:	Silver wire (\emptyset = 0.25 mm) Recommended connection technology: Soldering, Welding
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





ISTAG, Industriestrasse 2, CH-9630 Wattwil, Switzerland, Phone (+)41 71 987 73 73, Fax (+)41 71 987 73 77 e-mail info@ist-ag.com, www.ist-ag.com **Platinum Temperature Sensors**

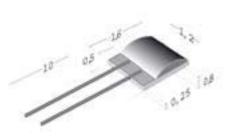
4U – Product Series

Temperature Range: -200°C...+400°C

4U 161

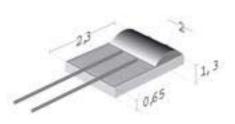
TEMPERATURE

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



4U 232

Dimensions, LxW:	2.3 x 2.0 mm	
Nominal Resistance at 0°C (ohm):	1000	
Self Heating (mK):	Water (v= 0 m/s) Air (v= 0 m/s)	ΔT_w = 2.5 at 0°C ΔT_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):	1000 Ω: 0.3	





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Order Example:	Ρ	1K0.	232.	2	Ι.	В.	100.	U
	1	2	3	4	5	6	7	8

- 1. Material Identification = Platinum temperature sensor
- 2. Resistance Value in ohm = $1000\Omega / 0^{\circ}C$
- 3. Chip Dimension = $2.3 \times 2.0 \text{ mm}$
- 4. Temperature Range = $-200^{\circ}C$ to $+400^{\circ}C$
- 5. Extension = Insulated contacts
- 6. Tolerance Class = DIN EN 60751 F 0.3 (former Class B)
- 7. Connection length = 10 mm
- 8. Special = Inverted Welding



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INNOVATIVE SENSOR TECHNOLOGY

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