



Platinum Temperature Sensors

D – Product Series

Temperature Range: $-200^{\circ}\text{C} \dots +400^{\circ}\text{C}$

Platinum temperature sensor elements with thin substrates (0.38 mm) for fast response time

Technical Data

Specification:	DIN EN 60751	
Temperature range:	-200°C to $+400^{\circ}\text{C}$	
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 $+400^{\circ}\text{C}$
	F 0.6 (Class C)	-200°C to $+400^{\circ}\text{C}$
	1/5 F 0.3 (Class K)	on request
	1/10 F 0.3 (Class K)	on request
Leads:	Silver wire ($\varnothing = 0.25$ mm) Recommended connection technology: Soldering, Welding, Crimping	
Lead Lengths:	15 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

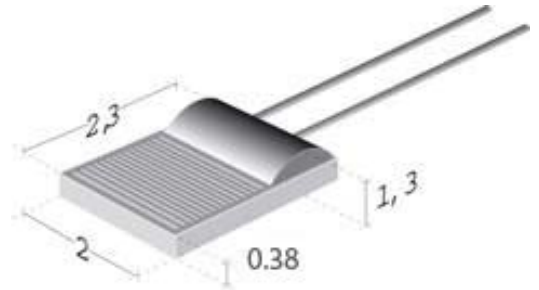
ISTAG, Industriestrasse 2, CH-9630 Wattwil, Switzerland, Phone (+)41 71 987 73 73, Fax (+)41 71 987 73 77
e-mail info@ist-ag.com, www.ist-ag.com

D – Product Series

Temperature Range: $-200^{\circ}\text{C} \dots +400^{\circ}\text{C}$

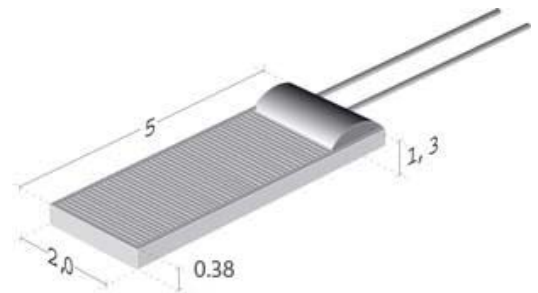
D 232

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) Air (v= 0 m/s)	$\Delta T_w = 2.5$ at 0°C $\Delta T_a = 25$ at 0°C
Response Time (s):	Water (v= 0.4 m/s) Air (v= 1 m/s)	$T_{0.5} = 0.15$ $T_{0.63} = 0.2$ $T_{0.9} = 0.55$ $T_{0.5} = 4.5$ $T_{0.63} = 6$ $T_{0.9} = 12$
Measuring Current (mA):	100 Ω : 1 500 Ω : 0.5 1000 Ω : 0.3	



D 520

Dimensions, LxW:	5.0 x 2.0 mm	
Nominal Resistance at 0°C (ohm):	100	
Self Heating (mK):	Water (v= 0 m/s) Air (v= 0 m/s)	$\Delta T_w = 1.3$ at 0°C $\Delta T_a = 14$ at 0°C
Response Time (s):	Water (v= 0.4 m/s) Air (v= 1 m/s)	$T_{0.5} = 0.25$ $T_{0.63} = 0.3$ $T_{0.9} = 0.75$ $T_{0.5} = 6$ $T_{0.63} = 8.5$ $T_{0.9} = 18$
Measuring Current (mA):	100 Ω : 1	



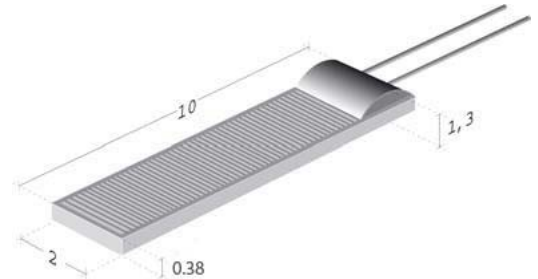
INNOVATIVE SENSOR TECHNOLOGY

D – Product Series

Temperature Range: **-200°C...+400°C**

D 102

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



Order Example: **P** **1K0.** **232.** **4** **W.** **B.** **015.** **D**
 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 +400 °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 0.38 mm



INNOVATIVE SENSOR TECHNOLOGY