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 (Ø = 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

RoHS

INNOVATIVE SENSOR TECHNOLOGY

IST AG, 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

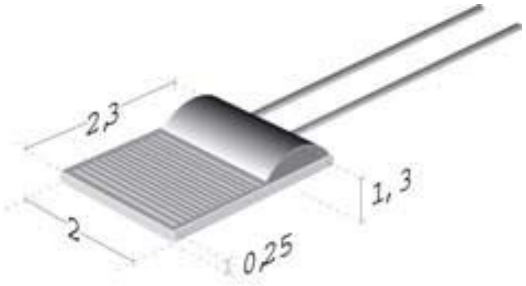
TEMPERATURE

T – Product Series

Temperature Range: –200°C...+600°C

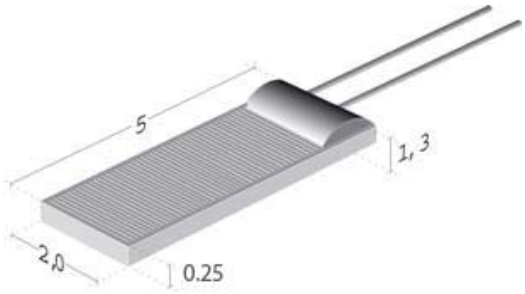
T 232

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) 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):	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) Air (v= 0 m/s)	ΔT_w = 1.3 at 0°C ΔT_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	



IST
INNOVATIVE SENSOR TECHNOLOGY

IST AG, 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

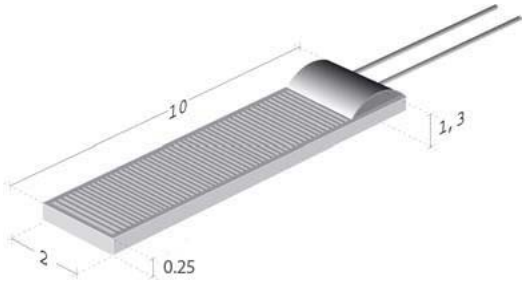
Platinum Temperature Sensors

T – Product Series

Temperature Range: –200°C...+600°C

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) Air (v= 0 m/s)	ΔT_w = 0.7 at 0°C ΔT_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 = 1000Ω / 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*

INNOVATIVE SENSOR TECHNOLOGY

IST AG, 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