



Platinum Temperature Sensors

2S – Product Series

Temperature Range: $-50^{\circ}\text{C} \dots +200^{\circ}\text{C}$

Platinum temperature sensor elements with SIL connectors

- Advantages:**
- Stabilized connector pins
 - Easy handling
 - Connectors maintain shape

Technical Data

Specification:	DIN EN 60751	
Temperature range:	-50°C to $+200^{\circ}\text{C}$	
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)	-50°C to $+200^{\circ}\text{C}$
	F 0.3 (Class B)	-50°C to $+200^{\circ}\text{C}$
	F 0.6 (Class C)	-50°C to $+200^{\circ}\text{C}$
	1/5 F 0.3 (Class K)	on request
	1/10 F 0.3 (Class K)	on request
Leads:	SIL (Single In Line) connectors Recommended connection technology: Soldering, Crimping	
Lead Lengths:	10mm \pm 1mm	
Long-term stability:	Max. Drift = Less than 0.03% after 1000h at max. operating temperature	



INNOVATIVE SENSOR TECHNOLOGY

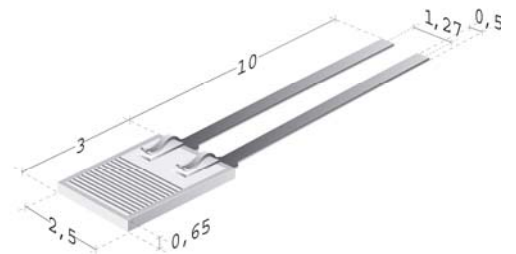
ISTAG, Industriestrasse 2, CH-9630 Wattwil, Switzerland, Phone (+)41 71 987 73 73, Fax (+)41 71 987 73 77
e-mail info@ist-ag.com, www.ist-ag.com

2S – Product Series

Temperature Range: $-50^{\circ}\text{C} \dots +200^{\circ}\text{C}$

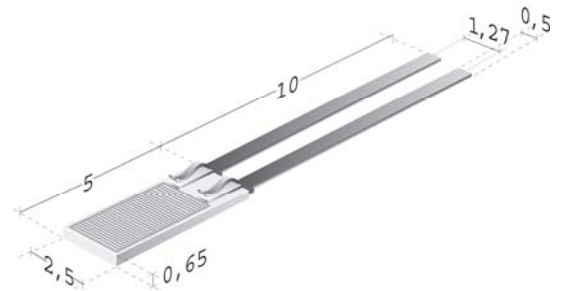
2S 325

Chip Dimensions, L x W:	3.0 x 2.5 mm	
Nominal Resistance at 0°C (ohm) :	100/1000	
Self Heating, (mK):	Water (v= 0 m/s) Air (v= 0 m/s)	$\Delta T_w = 1.1$ at 0°C $\Delta T_a = 13$ at 0°C
Response Time (s):	Water (v= 0.4 m/s)	$T_{0.5} = 0.25$ $T_{0.63} = 0.3$ $T_{0.9} = 0.7$
	Air (v= 1 m/s)	$T_{0.5} = 5.5$ $T_{0.63} = 7.5$ $T_{0.9} = 16$
Measuring Current (mA):	100Ω: 1 1000Ω: 0.3	



2S 525

Dimensions, LxW:	5.0 x 2.5 mm	
Nominal Resistance at 0°C (ohm):	100/1000	
Self Heating (mK):	Water (v= 0 m/s) Air (v= 0 m/s)	$\Delta T_w = 1.1$ at 0°C $\Delta T_a = 13$ 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)	$T_{0.5} = 6.5$ $T_{0.63} = 9$ $T_{0.9} = 19$
Measuring Current (mA):	100Ω: 1 1000Ω: 0.3	



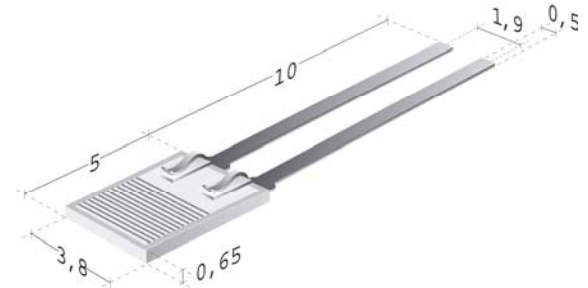
INNOVATIVE SENSOR TECHNOLOGY

2S – Product Series

Temperature Range: $-50^{\circ}\text{C} \dots +200^{\circ}\text{C}$

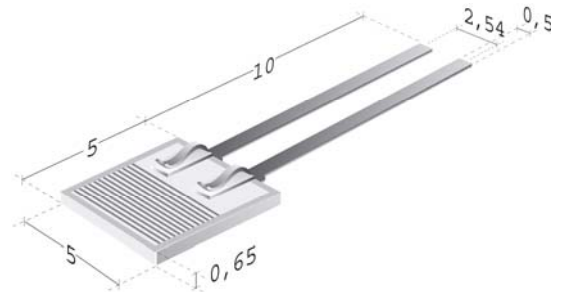
S 538

Dimensions, LxW:	5.0 x 3.8 mm	
Nominal Resistance at 0°C (ohm):	100/1000	
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)	$T_{0.5} = 0.35$ $T_{0.63} = 0.4$ $T_{0.9} = 0.9$
	Air (v= 1 m/s)	$T_{0.5} = 7.5$ $T_{0.63} = 10$ $T_{0.9} = 20$
Measuring Current (mA):	100Ω: 1	
	1000Ω: 0.3	



2S 505

Dimensions, LxW:	5.0 x 5.0 mm	
Nominal Resistance at 0°C (ohm):	100/1000	
Self Heating (mK):	Water (v= 0 m/s)	$\Delta T_w = 0.7$ at 0°C
	Air (v= 0 m/s)	$\Delta T_a = 0.9$ at 0°C
Response Time (s):	Water (v= 0.4 m/s)	$T_{0.5} = 0.4$ $T_{0.63} = 0.5$ $T_{0.9} = 1.1$
	Air (v= 1 m/s)	$T_{0.5} = 8$ $T_{0.63} = 11$ $T_{0.9} = 21$
Measuring Current (mA):	100Ω: 1	
	1000Ω: 0.3	



INNOVATIVE SENSOR TECHNOLOGY



Platinum Temperature Sensors

2S – Product Series

Temperature Range: $-50^{\circ}\text{C} \dots +200^{\circ}\text{C}$

Order Example:

P	1K0.	538.	2	S.	B.	010
1	2	3	4	5	6	7

1. *Material Identification = Platinum temperature sensor*
2. *Resistance Value in ohm = $1000\Omega / 0^{\circ}\text{C}$*
3. *Chip Dimension = $5.0 \times 3.8 \text{ mm}$*
4. *Temperature Range = -50°C to $+200^{\circ}\text{C}$*
5. *Extension = SIL connections*
6. *Tolerance Class = DIN EN 60751 F 0.3 (former Class B)*
7. *Connection length = 10 mm*



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