Platinum Temperature Sensors

2S – Product Series

Temperature Range: –50°C...+200°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°C	
Temperature Coefficient:	TCR = 3850 ppm/K	
Tolerance Classes:	F 0.1 (Class Y)	-50°C to +150°C
	F 0.15 (Class A)	-50°C to +200°C
	F 0.3 (Class B)	-50°C to +200°C
	F 0.6 (Class C)	-50°C to +200°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 ± 1mm	
Long-term stability:	Max. Drift = Less than 0.03% after 1000h at max. operating temperature	

RoHS

INNOVATIVE SENSOR TECHNOLOGY

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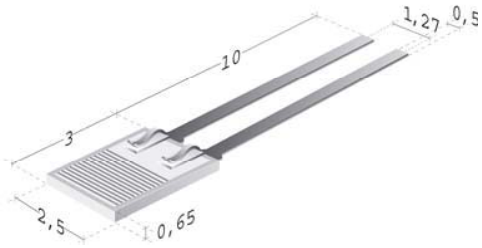
Platinum Temperature Sensors

2S – Product Series — Temperature Range: –50°C...+200°C

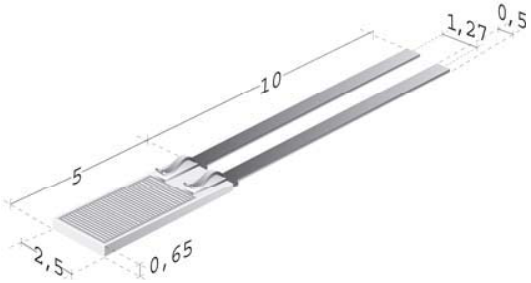
2S 325

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)	ΔT_w = 1.1 at 0°C
	Air (v= 0 m/s)	ΔT_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)	ΔT_w = 1.1 at 0°C
	Air (v= 0 m/s)	ΔT_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	



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Platinum Temperature Sensors

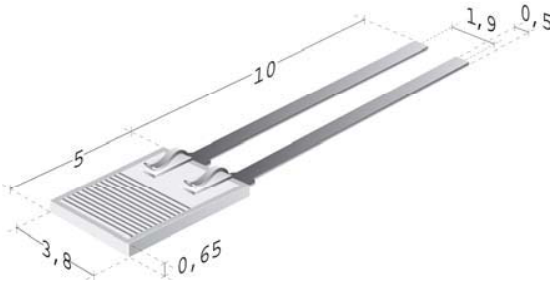
TEMPERATURE

2S – Product Series

Temperature Range: –50°C...+200°C

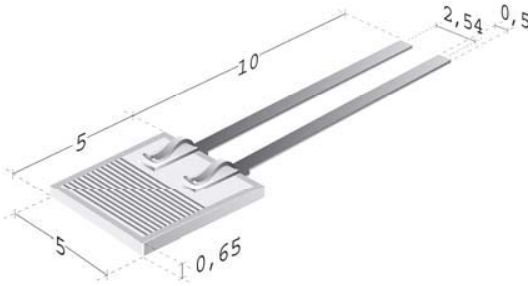
S 538

Dimensions, LxW:	5.0 x 3.8 mm	
Nominal Resistance at 0°C (ohm):	100/1000	
Self Heating (mK):	Water (v= 0 m/s)	ΔT_w = 0.7 at 0°C
	Air (v= 0 m/s)	ΔT_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)	ΔT_w = 0.7 at 0°C
	Air (v= 0 m/s)	ΔT_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	



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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 = 1000Ω / 0°C*
3. *Chip Dimension = 5.0 x 3.8 mm*
4. *Temperature Range = -50 °C to +200°C*
5. *Extension = SIL connections*
6. *Tolerance Class = DIN EN 60751 F 0.3 (former Class B)*
7. *Connection length = 10 mm*

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