1000 °C Series

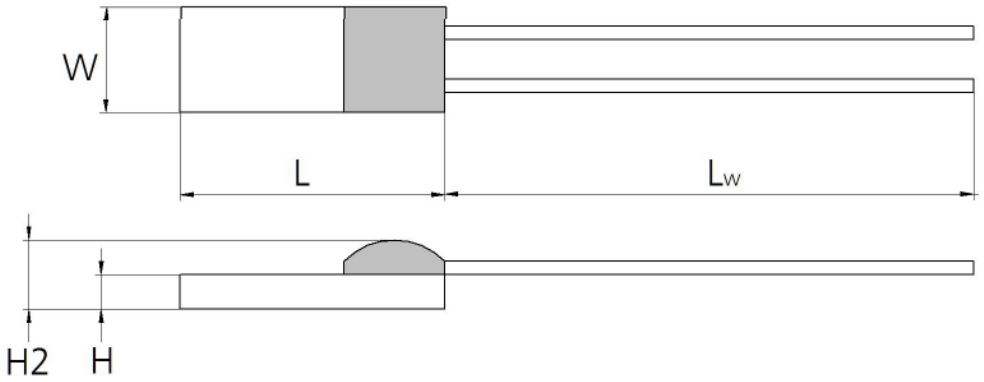
Platinum sensor with wires

For extremely high temperatures

Benefits & characteristics

- Excellent long-term stability
- 3770 ppm/K characteristics curve
- Low self-heating
- Small dimensions
- Vibration resistant
- Simple interchangeability
- Fast response time

Illustration [1)]



Dimension tolerances: W ±0.2 mm, L ±0.2 mm, H ±0.1 mm, H2 ±0.3 mm, L_W (up to 30 mm) ±1 mm

[1)] for actual size see dimensions in order information

Technical Data

Operating temperature range:	-70 °C to +1000 °C		
Nominal resistance:*	200 Ω at 0 °C		
Characteristics curve:*	3770 ppm/K		
Tolerance class: * (dependent on temperature range)	IST AG reference	-40 °C to +300 °C	+300 °C to 850 °C
	K	±3 K	±1 %
Connection:*	Pt-wire, 4 x 0.25 (L x Ø in mm) (solderable, weldable, crimpable)		
Recommended applied current:[1)]	Max. 2.8 mA at 850 °C		

1) Self-heating must be considered

Other alternatives:	Substrate thickness

Order Information

Nominal Resistance	Size	Dimensions (L x W x H / H2 in mm)	Class*	Order code	Product name (secondary reference)	Wire length in mm	Special
10K (Pt-wire, Ø 0.25 mm)							
200 Ω	420	3.85 x 1.9 x 0.45 / 0.75	Customer-specific	156880	P0K2.420.10K.K.004.D.S	4	

Additional Documents

Application Note	Document name: APT_E

Order Information

Platinum Sensor - Secondary reference

Material

P	=	Platinum

TCR

	=	Pt 3770 ppm/K	G	=	Pt 3911 ppm/K
U	=	Pt 3750 ppm/K	W	=	Pt 3850 ppm/K (extended operating temperature range in class A)

Resistance in Ω at 0°C

Size in mm

Operating temperature range

1	=	-50 °C to + 150 °C	6	=	-200°C to + 600 °C
2	=	-50 °C to + 200 °C	7	=	-200 °C to + 750 °C
3	=	-200 °C to + 300 °C	8	=	-200 °C to + 850 °C
4	=	-200 °C to + 400 °C	10	=	-70 °C to + 1000 °C

Connections

S	=	SIL	FK	=	Flat wire customer specific
I	=	Insulated wire	SW	=	Perpendicular wire
K	=	Extended wire	L	=	Insulated stranded wire
W	=	Wire	E	=	Enameled Cu-wire
FW	=	Flat wire	SE	=	Perpendicular enamelded CU-wire

Tolerance class

A	=	IEC 60751 F0.15	K	=	Customer-specific
B	=	IEC 60751 F0.3	P	=	Pair
C	=	IEC 60751 F0.6	G	=	Group
Y	=	IEC 60751 F0.1			

Wire length in mm

Special

T	=	Substrate thickness 0.25 mm	M	=	Metallized backside
D	=	Substrate thickness 0.38 mm	U	=	Inverted welding
R	=	Round housing	S	=	Special
W	=	Sintered powder			

P		0K2.	420.	10	K.	K.	004.	D.S

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