



1000 °C Series



Platinum sensor with wires



For extremely high temperatures



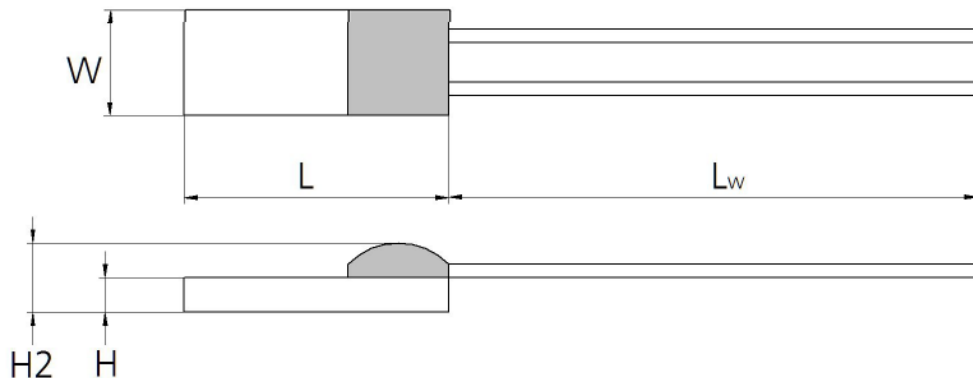
Benefits & characteristics



- 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: $W \pm 0.2 \text{ mm}$, $L \pm 0.2 \text{ mm}$, $H \pm 0.1 \text{ mm}$, $H2 \pm 0.3 \text{ mm}$,
 $L_w \text{ (up to 30 mm)} \pm 1 \text{ mm}$

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: *	IST AG reference	-40 °C to +300 °C	+300 °C to 850 °C
(dependent on temperature range)	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 enamelled 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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