



1000 °C Series



Platinum sensor with wires



For extremely high temperatures

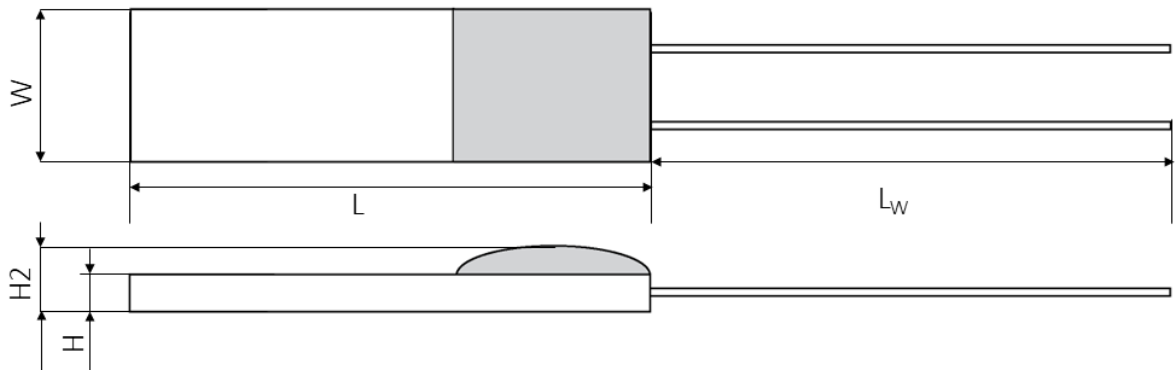


Benefits & characteristics



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

Illustration ¹⁾



¹⁾ for actual size see dimensions in order information

H = Substrate Hight

H2 =Hight

W = Width

L = Length

L_w = Wire length

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



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 reference	-40 °C to +300 °C	+300 °C to 850 °C
(dependent on temperature range)	K	±3 K	±1 %



Connection:* Pt-wire, 4.0 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 1.90 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



Innovative Sensor Technology IST AG • Stegrütistrasse 14 • 9642 Ebnat-Kappel • Switzerland

+41 71 992 01 00 • info@ist-ag.com • www.ist-ag.com

Technical specifications are subject to change without prior notice. The information contained in this data sheet has been carefully reviewed and is believed to be accurate; however, no liability is assumed for any errors or omissions. Continuous exposure to extreme operating conditions may impact product lifetime or reliability. The customer is solely responsible for assessing the suitability and fitness of the product for their specific application. This product is not designed, authorized, or warranted for use in life support or safety-critical applications. The customer agrees to hold the supplier harmless from any claims, damages, or liabilities arising from such use. No explicit or implied warranties, including but not limited to warranties of merchantability or fitness for a particular purpose, are provided. The material provided herein may not be reproduced, adapted, merged, translated, stored, or utilized in any form without prior written consent from the copyright holder. No transfer of any intellectual property rights is granted or implied. All rights reserved.