850 °C Series

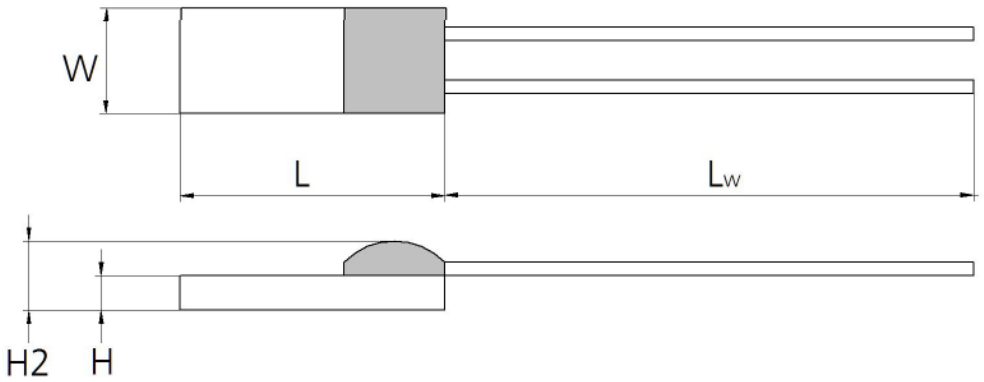
Platinum sensor with wires

For very high temperatures

Benefits & characteristics

- Excellent long-term stability
- Low self-heating
- Fast response time
- Vibration and temperature shock resistant
- Simple interchangeability
- Customer-specific sensor available upon request

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:	-200 °C to +850 °C	
Nominal resistance:*	100 Ω at 0 °C 200 Ω at 0 °C 1000 Ω at 0 °C	
Characteristics curve:*	3850 ppm/K	
Long-term stability:	< 0.04 % at 1000 h at maximal operating temperature	
Tolerance class: * (dependent on temperature range)		**iST reference**
	IEC 60751 F0.15	A
	IEC 60751 F0.3	B
	IEC 60751 F0.6	C
	IEC 60751 F0.1	Y
Connection:*	Pt-wire, Ø 0.2 mm (solderable, weldable, crimpable, brazeable)	
Recommended applied current:	Max. 1 mA (self-heating must be considered)	
Other alternatives:*	Substrate thickness	

* Customer-specific alternatives available

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
8W (Pt-wire, Ø 0.2 mm)							
200 Ω	420	3.85 x 1.9 x 0.65 / 1.0; 7.0	IEC 60751 F0.15	On request	P0K2.420.8W.A.007	7	
200 Ω	420	3.85 x 1.9 x 0.65 / 1.0; 7.0	IEC 60751 F0.3	155150	P0K2.420.8W.B.007	7	
200 Ω	420	3.85 x 1.9 x 0.65 / 1.0; 7.0	IEC 60751 F0.6	On request	P0K2.420.8W.C.007	7	
1000 Ω	420	3.85 x 1.9 x 1.0/ 1.0; 7.0	IEC 60751 F0.15	On request	P1K0.420.8W.A.007	7	
1000 Ω	420	3.85 x 1.9 x 1.0/ 1.0; 7.0	IEC 60751 F0.3	155151	P1K0.420.8W.B.007	7	
1000 Ω	420	3.85 x 1.9 x 1.0/ 1.0; 7.0	IEC 60751 F0.6	On request	P1K0.420.8W.C.007	7	
100 Ω	516	5.0 x 1.6 x 0.65 / 1.0; 7.0	IEC 60751 F0.15	On request	P0K1.516.8W.A.007	7	
100 Ω	516	5.0 x 1.6 x 0.65 / 1.0; 7.0	IEC 60751 F0.3	100813	P0K1.516.8W.B.007	7	
100 Ω	516	5.0 x 1.6 x 0.65 / 1.0; 7.0	IEC 60751 F0.6	On request	P0K1.516.8W.C.007	7	
1000 Ω	516	5.0 x 1.6 x 0.65 / 1.0; 7.0	IEC 60751 F0.15	On request	P1K0.516.8W.A.007	7	
1000 Ω	516	5.0 x 1.6 x 0.65 / 1.0; 7.0	IEC 60751 F0.3	100862	P1K0.516.8W.B.007	7	
1000 Ω	516	5.0 x 1.6 x 0.65 / 1.0; 7.0	IEC 60751 F0.6	On request	P1K0.516.8W.C.007	7	
100 Ω	102	10.0 x 2.0 x 0.65 / 1.0; 10.0	IEC 60751 F0.15	On request	P0K1.102.8W.A.010	10	
100 Ω	102	10.0 x 2.0 x 0.65 / 1.0; 10.0	IEC 60751 F0.3	100205	P0K1.102.8W.B.010	10	
100 Ω	102	10.0 x 2.0 x 0.65 / 1.0; 10.0	IEC 60751 F0.6	On request	P0K1.102.8W.C.010	10	

Additional Documents

Application Note	Document name: APT_E

Order Information

Platinum Sensor - Secondary reference

Material

P	=	Platinum

TCR

	=	Pt 3850 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 enameled 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		0K1.	232.	8	W.	B.	010.	T

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