



150 °C Series

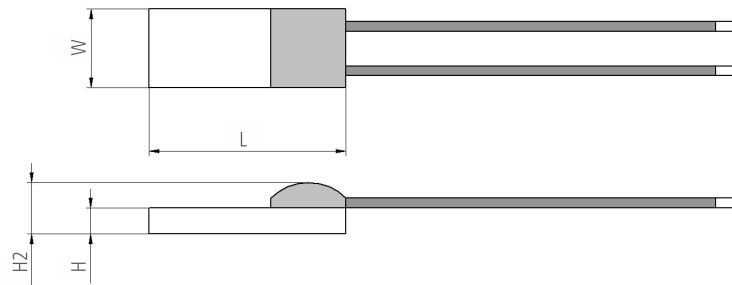
Platinum sensor with wires

For low temperatures

Benefits & Characteristics

- Excellent long-term stability
- Low self-heating
- Long isolated wires
- Fast response time
- Metallized backside available
- Customer-specific sensor available upon request

Illustration¹⁾



1) For actual size, see dimensions

Technical Data

Operating temperature range:	-50 °C to +150 °C	
Nominal resistance:*	100 Ω at 0 °C 500 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 AG reference
	IEC 60751 F0.15	A
	IEC 60751 F0.3	B
	IEC 60751 F0.6	C
	IEC 60751 F0.1	Y
Connection:*	Enameled Cu-wire, Ø 0.2 mm	
Alternative wire construction:*	Inverted wires; Extended wires	
Recommended applied current: ¹⁾	1 mA at 100 Ω 0.5 mA at 500 Ω 0.3 mA at 1000 Ω	
¹⁾ Self-heating must be considered		
Other alternatives:*	Metallized backside Housed in round ceramics (for dry environments only) Grouped and paired Substrate thickness	

* Customer-specific alternatives available



Order Information - 1E (Enameled Cu-wire, Ø 0.2 mm (161) / Ø 0.15 mm (308))

Size	Dimensions (L x W x H / H2 in mm) L ±0.2 mm, W ±0.2 mm, H ±0.1 mm, H2 ±0.3 mm	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
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Nominal resistance: 100 Ω at 0 °C

161	1.6 x 1.2 x 0.25 / 0.6	Upon request	Upon request	P0K1.161.1E.B.065
Order code				010.00693
308	3.0 x 0.8 x 0.25 / 0.6	Upon request	Upon request	P0K1.308.1E.B.100
Order code				010.01672

With metalized backside

232	2.3 x 2 x 0.65 / 1.3			P0K1.232.1E.B.015.M
Order code				010.02444

Nominal resistance: 1000 Ω at 0 °C

161	1.6 x 1.2 x 0.25 / 0.6	Upon request	P1K0.161.1E.A.040	P1K0.161.1E.B.020
Order code			010.01732	010.02327
308	3.0 x 0.8 x 0.25 / 0.6	Upon request	Upon request	P1K0.308.1E.B.050
Order code				010.01189

Additional Documents

	Document name:
Application Note:	ATP_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

Connection

S = SIL FK = flat wire customer-specific
I = insulated wire SW = perpendicular wire
K = customer-specific L = insulate stranded wire
W = wire E = enameled Cu-wire
FW = flat 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 OK1. 232. 1 E. B. 015. M



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