



850 °C Series

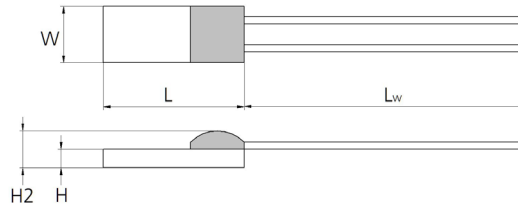
Platinum sensor with wires

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

Illustration¹⁾



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

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):*	Innovative Sensor Technology IST AG 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: ¹⁾	Max. 1 mA	
	¹⁾ Self-heating must be considered	
Other alternatives:*	Substrate thickness	

* Customer-specific alternatives available



Order Information - 8W (Pt-wire, Ø 0.2 mm)

Size	Dimensions (L x W x H / H2; L _w in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
516	5.0 x 1.6 x 0.65 / 1.0; 7.0	Upon request	Upon request	P0K1.516.8W.B.007
Order code				010.01901
102	10.0 x 2.0 x 0.65 / 1.0; 10.0	Upon request	Upon request	P0K1.102.8W.B.010
Order code				010.00158
Nominal resistance: 200 Ω at 0 °C				
420	3.85 x 1.9 x 0.65 / 1.0; 7.0	Upon request	Upon request	P0K2.420.8W.B.007
Order code				010.02797
Nominal resistance: 1000 Ω at 0 °C				
516	5.0 x 1.6 x 0.65 / 1.0; 7.0	Upon request	Upon request	P1K0.516.8W.B.007
Order code				010.02003

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. 8 W. B. 010. T



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