



# 850 °C series

## Platinum sensor with wires

### For very high temperatures

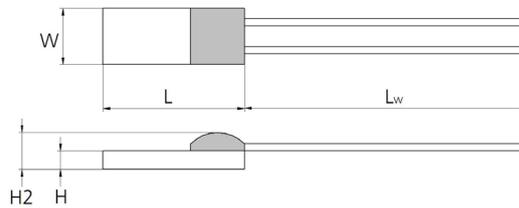


INNOVATIVE SENSOR TECHNOLOGY

#### 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<sup>1)</sup>



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

<sup>1)</sup> 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: <sup>1)</sup>	Max. 1 mA	
	<sup>1)</sup> Self-heating must be considered	
Other alternatives:*	Substrate thickness	

\* Customer specific alternatives available



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

Size	Dimensions (L x W x H / H2; L <sub>w</sub> 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

Application Note:	Document name: ATP_E
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# Order Information

## Platinum Sensor

### Secondary reference



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#### 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 $\Omega$ 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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All mechanical dimensions are valid at 25 °C ambient temperature, if not differently indicated • All data except the mechanical dimensions only have information purposes and are not to be understood as assured characteristics • Technical changes without previous announcement as well as mistakes reserved • The information on this data sheet was examined carefully and will be accepted as correct; No liability in case of mistakes • Load with extreme values during a longer period can affect the reliability • The material contained herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner • Typing errors and mistakes reserved • Product specifications are subject to change without notice • All rights reserved