



# 750 °C Series

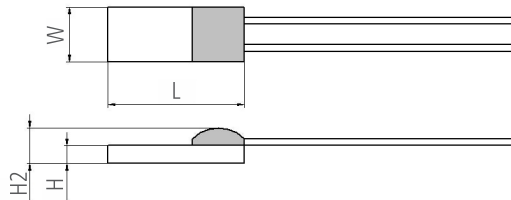
## Platinum sensor with wires

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



1) For actual size, see dimensions

#### Technical Data

Operating temperature range:	-200 °C to +750 °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:*	Pt-wire, Ø 0.2 mm (solderable, weldable, crimpable, brazeable)	
Recommended applied current: <sup>1)</sup>	1 mA at 100 Ω	
<sup>1)</sup> Self-heating must be considered	0.5 mA at 500 Ω	
	0.3 mA at 1000 Ω	
Other alternatives:*	Grouped and paired Substrate thickness	

\* Customer-specific alternatives available



## Order Information - 7W (Pt-wire, Ø 0.2 mm)

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)
Nominal resistance: 100 Ω at 0 °C				
516	5 x 1.6 x 0.65 / 1.3	Upon request	P0K1.516.7W.A.007	P0K1.516.7W.B.007
Order code			010.00644	010.00643
102	10 x 2 x 0.65 / 1.3	Upon request	P0K1.102.7W.A.010	P0K1.102.7W.B.010
Order code			010.00156	010.00155
Nominal resistance: 500 Ω at 0 °C				
516	5 x 1.6 x 0.65 / 1.3	Upon request	Upon request	P0K5.516.7W.B.007
Order code				010.01660
Nominal resistance: 1000 Ω at 0 °C				
216	2.5 x 1.6 x 0.65 / 1.3	Upon request	Upon request	P1K0.216.7W.B.010
Order code				310.00158
516	5 x 1.6 x 0.65 / 1.3	P1K0.516.7W.Y.010	P1K0.516.7W.A.010	P1K0.516.7W.B.010
Order code		010.01683	010.01073	010.01072
520	5 x 2 x 0.65 / 1.3	Upon request	P1K0.520.7W.A.010	P1K0.520.7W.B.010
Order code			010.00953	010.00283
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.102.7W.B.010
Order code				010.00319

## 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 $\Omega$ 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. 516. 7    W.    A. 007. U



Innovative Sensor Technology IST AG, Stegrütistrasse 14, 9642 Ebnat-Kappel, Switzerland  
Phone: +41 71 992 01 00 | Fax: +41 71 992 01 99 | Email: info@ist-ag.com | www.ist-ag.com

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