



# 300 °C series Platinum sensor with wires



INNOVATIVE SENSOR TECHNOLOGY



## For low to medium temperatures

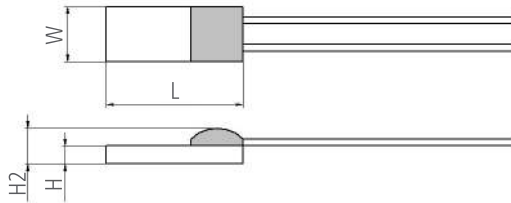


### Benefits & Characteristics



- Excellent long-term stability
- Low self-heating
- Optimal price/performance ratio
- Perpendicular wires available
- Au coated Ni-wire available
- Metalized backside available
- Customer specific sensor available upon request

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



<sup>1)</sup> For actual size, see dimensions

### Technical Data

Operating temperature range:	-200 °C to +300 °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	
	DIN EN 60751 F0.15	A
	DIN EN 60751 F0.3	B
	DIN EN 60751 F0.6	C
	DIN EN 60751 F0.1	Y
Connection:*	Ni-wire Au coated, Ø 0.2 mm	
	Ni flat wire Au coated, 0.2 x 0.4 mm (HxW) (solderable, weldable, crimpable)	
	Ag-wire, Ø 0.25 mm	
	Ni-wire, Ø 0.2 mm	
Alternative wire construction:*	Inverted wires	
	Perpendicular wires	
Recommended applied current: <sup>1)</sup>	1 mA at 100 Ω	
	0.5 mA at 500 Ω	
	0.3 mA at 1000 Ω	

<sup>1)</sup> Self-heating must be considered



# 300 °C series

## Platinum sensor with wires

### For low to medium temperatures



INNOVATIVE SENSOR TECHNOLOGY

Other alternatives:\*

Metalized backside

Housed in round ceramics (for dry environments only)

Grouped and paired

Substrate thickness

\* Customer specific alternatives available

#### Order Information - 3K (Ni wire Au coated, Ø 0.2 mm / Ø 0.15 mm (308))

Size	Dimensions (L x W x H / H2 in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
202	2 x 2 x 0.65 / 1.3	Upon request	P0K1.202.3K.A.010	P0K1.202.3K.B.010
Order code			010.02600	010.02599
216	2.5 x 1.6 x 0.65 / 1.3	P0K1.216.3K.Y.010	P0K1.216.3K.A.010	P0K1.216.3K.B.010
Order code		010.02688	010.02689	010.02690
308	3 x 0.8 x 0.4 / 0.6	Upon request	P0K1.308.3K.A.007	P0K1.308.3K.B.007
Order code			310.00432	310.00433
520	5 x 2 x 0.65 / 1.3	Upon request	P0K1.520.3K.A.010	P0K1.520.3K.B.010
Order code			010.02737	010.02738
102	10 x 2 x 0.65 / 1.3	Upon request	P0K1.102.3K.A.010	P0K1.102.3K.B.010
Order code			010.02740	010.02739

Nominal resistance: 500 Ω at 0 °C

202	2 x 2 x 0.65 / 1.3	Upon request	P0K5.202.3K.A.015	P0K5.202.3K.B.015
Order code			010.02631	010.02632

Nominal resistance: 1000 Ω at 0 °C

161	1.6 x 1.2 x 0.4 / 0.8	Upon request	P1K0.161.3K.A.020	P1K0.161.3K.B.020
Order code			310.00599	310.00607
202	2 x 2 x 0.65 / 1.3	Upon request	P1K0.202.3K.A.010	P1K0.202.3K.B.010
Order code			010.02659	010.02534



# 300 °C series

## Platinum sensor with wires

### For low to medium temperatures



#### Order Information - 3FW (Ni flat wire Au coated, 0.2 x 0.4 mm (HxW))

Size	Dimensions (L x W x H / H2 in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
202	2 x 2 x 0.65 / 1.3	P0K1.202.3FW.Y.007	P0K1.202.3FW.A.010	P0K1.202.3FW.B.010
Order code		010.02207	010.02035	010.01983
232	2.3 x 2 x 0.65 / 1.3	P0K1.232.3FW.Y.007	P0K1.232.3FW.A.007	P0K1.232.3FW.B.007
Order code		010.01119	010.01182	010.01118
Nominal resistance: 500 Ω at 0 °C				
202	2 x 2 x 0.65 / 1.3	Upon request	P0K5.202.3FW.A.007	P0K5.202.3FW.B.007
Order code			010.02389	010.02282
232	2.3 x 2 x 0.65 / 1.3	P0K5.232.3FW.Y.007	P0K5.232.3FW.A.007	P0K5.232.3FW.B.007
Order code		010.01655	010.01656	010.01657
Nominal resistance: 1000 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	Upon request	P1K0.161.3FW.A.010	P1K0.161.3FW.B.010
Order code			310.00231	310.00128
202	2 x 2 x 0.65 / 1.3	P1K0.202.3FW.Y.007	P1K0.202.3FW.A.007	P1K0.202.3FW.B.007
Order code		010.02310	010.02049	010.01982
216	2 x 1.6 x 0.65 / 1.3	P1K0.216.3FW.Y.007	P1K0.216.3FW.A.007	P1K0.216.3FW.B.007
Order code		010.02623	010.02340	010.01978
232	2.3 x 2 x 0.65 / 1.3	P1K0.232.3FW.Y.007	P1K0.232.3FW.A.007	P1K0.232.3FW.B.007
Order code		010.01121	010.01827	010.01120
Nominal resistance: 2000 Ω at 0 °C				
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P2K0.232.3FW.B.007
Order code				010.02140

#### Order Information - 3SK (Ag-wire, Ø 0.25 mm, perpendicular wire, metalized backside)

Size	Dimensions (L x W x H / H2 in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	Upon request	P0K1.161.3SK.A.010.M	P0K1.161.3SK.B.010.M
Order code			010.01164	010.01176
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.232.3SK.B.010.M
Order code				010.00948



# 300 °C series

## Platinum sensor with wires

### For low to medium temperatures



INNOVATIVE SENSOR TECHNOLOGY



Size	Dimensions (L x W x H / H2 in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 1000 Ω at 0 °C				
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.232.3SK.B.015.M
Order code				010.00716

#### Order Information - 3W (Ni wire, Ø 0.2 mm / Ø 0.15 mm (308))

Size	Dimensions (L x W x H / H2 in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
202	2 x 2 x 0.65 / 1.3		P0K1.202.3W.A.010	P0K1.202.3W.B.010
Order code			010.02509	010.02505

Nominal resistance: 1000 Ω at 0 °C				
202	2 x 2 x 0.65 / 1.3	Upon request	P1K0.202.3W.A.007	P1K0.202.3W.B.007
Order code			010.02482	010.02385
308	3 x 0.8 x 0.4 / 0.6	Upon request	P1K0.308.3W.A.025	P1K0.308.3W.B.025
Order code			310.00228	310.00243

#### Additional Documents

Application note:	Document name: ATP_E
-------------------	-------------------------



# Order Information

## Platinum Sensor

### Secondary reference



INNOVATIVE SENSOR TECHNOLOGY

Material

P = Platin

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

Connections

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 = DIN EN 60751 F0.15	K = customer specific
B = DIN EN 60751 F0.3	P = pair
C = DIN EN 60751 F0.6	G = group
Y = DIN EN 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. 6 W. A. 010. U



INNOVATIVE SENSOR TECHNOLOGY

Innovative Sensor Technology IST AG, Stegrütistrasse 14, CH-9642 Ebnat-Kappel, Switzerland,  
Phone: +41 (0) 71 992 01 00 | Fax: +41 (0) 71 992 01 99 | E-mail: info@ist-ag.com | Web: 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