



# 300 °C series

## Platinum sensor with wires

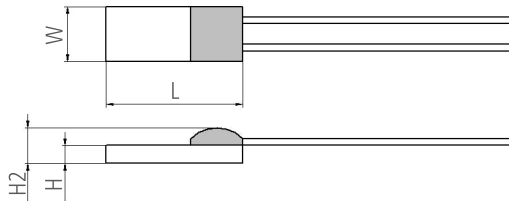
### For low to medium temperatures



#### 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>



1) 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



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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
202	2 x 2 x 0.65 / 1.3	Upon request	P0K1.202.3K.A.015	P0K1.202.3K.B.015
Order code			010.02754	010.02742
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



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#### 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



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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
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# Order Information

## Platinum Sensor

### Secondary reference



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#### 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



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