



400 °C series Platinum sensor with wires For medium temperatures



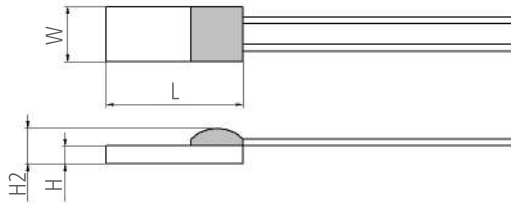
INNOVATIVE SENSOR TECHNOLOGY



Benefits & Characteristics

- Outstanding long-term stability
- Excellent solderability
- Low self-heating
- Vibration and temperature shock resistant
- Paired and grouped sensors available
- 1/5 DIN and 1/10 DIN
- Customer specific sensor available upon request

Illustration¹⁾



1) For actual size, see dimensions

Technical Data

Operating temperature range:	-200 °C to +400 °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
	1/5 DIN EN 60751 F0.3	K*
	1/10 DIN EN 60751 F0.3	K*
Connection:*	Ag-wire, Ø 0.25 mm (solderable, weldable)	
Alternative wire construction:*	Perpendicular wires	
	Inverted wires	
Recommended applied current: ¹⁾	1 mA at 100 Ω	
	0.5 mA at 500 Ω	
	0.3 mA at 1000 Ω	
Other alternatives:*	Housed in round ceramics (for dry environments only)	
	Grouped and paired	
	Substrate thickness	

* Customer specific alternatives available



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Order Information - 4W (Ag-wire, Ø 0.25 mm)

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	P0K1.161.4W.Y.010	P0K1.161.4W.A.010	P0K1.161.4W.B.010
Order code		010.00048	010.00045	010.00042
216	2.5 x 1.6 x 0.65 / 1.3	Upon request	P0K1.216.4W.A.015	P0K1.216.4W.B.015
Order code			010.02699	010.02698
232	2.3 x 2 x 0.65 / 1.3	P0K1.232.4W.Y.010	P0K1.232.4W.A.007	P0K1.232.4W.B.007
Order code		010.00006	010.00008	010.00007
505	5 x 5 x 0.65 / 1.3	Upon request	P0K1.505.4W.A.010	P0K1.505.4W.B.010
Order code			010.00141	010.00139
516	5 x 1.6 x 0.65 / 1.3	P0K1.516.4W.Y.010	P0K1.516.4W.A.010	P0K1.516.4W.B.010
Order code		010.00075	010.00073	010.00071
520	5 x 2 x 0.65 / 1.3	P0K1.520.4W.Y.010	P0K1.520.4W.A.010	P0K1.520.4W.B.010
Order code		010.00096	010.00094	010.00092
538	5 x 3.8 x 0.65 / 1.3	Upon request	P0K1.538.4W.A.010	P0K1.538.4W.B.010
Order code			010.00123	010.00121
102	10 x 2 x 0.65 / 1.3	P0K1.102.4W.Y.010	P0K1.102.4W.A.010	P0K1.102.4W.B.010
Order code		010.00150	010.00148	010.00146
Nominal resistance: 500 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	P0K5.161.4W.Y.010	P0K5.161.4W.A.010	P0K5.161.4W.B.010
Order code		010.00179	010.00177	010.00175
232	2.3 x 2 x 0.65 / 1.3	Upon request	P0K5.232.4W.A.010	P0K5.232.4W.B.010
Order code			010.00667	010.00664
516	5 x 1.6 x 0.65 / 1.3	P0K5.516.4W.Y.015	P0K5.516.4W.A.015	P0K5.516.4W.B.015
Order code		010.00190	010.00189	010.00188
520	5 x 2 x 0.65 / 1.3	P0K5.520.4W.Y.015	P0K5.520.4W.A.010	P0K5.520.4W.B.010
Order code		010.00196	010.00946	010.00663
102	10 x 2 x 0.65 / 1.3	Upon request	P0K5.102.4W.A.010	P0K5.102.4W.B.010
Order code			010.02332	010.02341
Nominal resistance: 1000 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	P1K0.161.4W.Y.010	P1K0.161.4W.A.010	P1K0.161.4W.B.010
Order code		010.00217	010.00214	010.00211
232	2.3 x 2 x 0.65 / 1.3	P1K0.232.4W.Y.010	P1K0.232.4W.A.007	P1K0.232.4W.B.007
Order code		010.00228	010.01938	010.01939
505	5 x 5 x 0.65 / 1.3	Upon request	P1K0.505.4W.A.010	P1K0.505.4W.B.010
Order code			010.00295	010.00294



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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)
516	5 x 1.6 x 0.65 / 1.3	P1K0.516.4W.Y.010	P1K0.516.4W.A.010	P1K0.516.4W.B.010
Order code		010.00254	010.00252	010.00250
520	5 x 2 x 0.65 / 1.3	P1K0.520.4W.Y.010	P1K0.520.4W.A.010	P1K0.520.4W.B.010
Order code		010.00266	010.00264	010.00262
538	5 x 3.8 x 0.65 / 1.3	Upon request	P1K0.538.4W.A.010	P1K0.538.4W.B.010
Order code			010.00390	010.00389
102	10 x 2 x 0.65 / 1.3	P1K0.102.4W.Y.010	P1K0.102.4W.A.010	P1K0.102.4W.B.010
Order code		010.00305	010.00301	010.00299

Order Information - 4SW (Ag-wire, Ø 0.25 mm, perpendicular wire)

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	P0K1.161.4SW.A.010	P0K1.161.4SW.B.010
Order code			010.01108	010.00616
232	2.3 x 2 x 0.65 / 1.3	P0K1.232.4SW.Y.010	P0K1.232.4SW.A.010	P0K1.232.4SW.B.010
Order code		010.02159	010.01179	010.01695
538	5 x 3.8 x 0.65 / 1.3	Upon request	Upon request	P0K1.538.4SW.B.015
Order code				010.02497
Nominal resistance: 500 Ω at 0 °C				
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K5.232.4SW.B.010
Order code				010.00578
Nominal resistance: 1000 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	Upon request	P1K0.161.4SW.A.010	P1K0.161.4SW.B.010
Order code			010.00599	010.00361
232	2.3 x 2 x 0.65 / 1.3	Upon request	P1K0.232.4SW.A.015	P1K0.232.4SW.B.015
Order code			010.00586	010.00235



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Order Information - R (in round ceramic housing, Ag-wire, Ø 0.25 mm)

Size	Dimensions (Ø x L in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
281	2.8 x 13		POK1.281.4W.A.010.R	POK1.281.4W.B.010.R
Order code			010.00477	010.00476
451	4.5 x 13		POK1.451.4W.A.007.R	POK1.451.4W.B.010.R
Order code			010.00483	010.00481

Additional Documents

	Document name:
Application note:	ATP_E



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 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

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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