



600 °C series

Platinum sensor with wires

For high temperatures



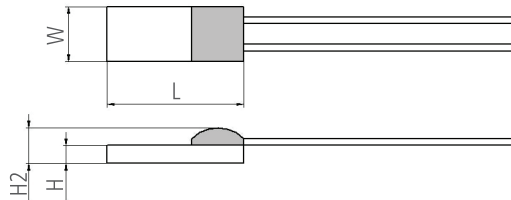
INNOVATIVE SENSOR TECHNOLOGY



Benefits & Characteristics

- Excellent long-term stability
- Low self-heating
- Fast response time
- Small dimensions
- Vibration and temperature shock resistant
- Paired sensors available
- 1/5 DIN and 1/10 DIN available
- Customer specific sensor available upon request

Illustration¹⁾



1) For actual size, see dimensions

Technical Data

Operating temperature range:	-200 °C to +600 °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:*	Pt-cladded Ni-wire, Ø 0.2 mm (solderable, weldable, crimpable, brazeable)	
Alternative wire construction:*	Inverted wires	
Recommended applied current: ¹⁾	1 mA at 100 Ω	
¹⁾ Self-heating must be considered	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 - 6W (Pt-cladded Ni-wire, Ø 0.2 mm, Ø 0.2 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	POK1.161.6W.Y.010	POK1.161.6W.A.007	POK1.161.6W.B.007
Order code		010.00066	010.02195	010.02196
202	2 x 2 x 0.65 / 1.3	POK1.202.6W.Y.010	POK1.202.6W.A.007	POK1.202.6W.B.007
Order code		010.02094	010.02019	010.02020
216	2.5 x 1.6 x 0.65 / 1.3	POK1.216.6W.Y.010	POK1.216.6W.A.007	POK1.216.6W.B.007
Order code		010.00652	010.01111	010.01129
232	2.3 x 2 x 0.65 / 1.3	POK1.232.6W.Y.007	POK1.232.6W.A.007	POK1.232.6W.B.007
Order code		010.01089	010.01793	010.01006
516	5 x 1.6 x 0.65 / 1.3	POK1.516.6W.Y.010	POK1.516.6W.A.007	POK1.516.6W.B.007
Order code		010.00084	010.01942	010.01943
520	5 x 2 x 0.65 / 1.3	POK1.520.6W.Y.010	POK1.520.6W.A.010	POK1.520.6W.B.010
Order code		010.00101	010.00099	010.00098
538	5 x 3.8 x 0.65 / 1.3	Upon request	POK1.538.6W.A.010	POK1.538.6W.B.010
Order code			010.01826	010.01001
102	10 x 2 x 0.65 / 1.3	POK1.102.6W.Y.010	POK1.102.6W.A.010	POK1.102.6W.B.010
Order code		010.00154	010.00153	010.00152
Nominal resistance: 500 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	POK5.161.6W.Y.010	POK5.161.6W.A.010	POK5.161.6W.B.010
Order code		010.00182	010.00181	010.00180
202	2 x 2 x 0.65 / 1.3	Upon request	Upon request	POK5.202.6W.B.007
Order code				010.02516
232	2.3 x 2 x 0.65 / 1.3	POK5.232.6W.Y.010	POK5.232.6W.A.010	POK5.232.6W.B.010
Order code		010.00187	010.00186	010.00185
516	5 x 1.6 x 0.65 / 1.3	POK5.516.6W.Y.010	POK5.516.6W.A.010	POK5.516.6W.B.010
Order code		010.00193	010.00192	010.00191
520	5 x 2 x 0.65 / 1.3	POK5.520.6W.Y.010	POK5.520.6W.A.010	POK5.520.6W.B.010
Order code		010.00199	010.00198	010.00197
102	10 x 2 x 0.65 / 1.3	Upon request	POK5.102.6W.A.010	POK5.102.6W.B.010
Order code			010.00205	010.00204
Nominal resistance: 1000 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	P1K0.161.6W.Y.010	P1K0.161.6W.A.010	P1K0.161.6W.B.010
Order code		010.00222	010.00221	010.00220
202	2 x 2 x 0.65 / 1.3	Upon request	P1K0.202.6W.A.007	P1K0.202.6W.B.007
Order code			010.02232	010.02250
216	2.5 x 1.6 x 0.65 / 1.3	P1K0.216.6W.Y.010	P1K0.216.6W.A.010	P1K0.216.6W.B.010
Order code		010.02391	010.01109	010.01018



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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)
232	2.3 x 2 x 0.65 / 1.3	P1K0.232.6W.Y.007	P1K0.232.6W.A.007	P1K0.232.6W.B.007
Order code		010.01007	010.01937	010.01008
420	4 x 2 x 0.65 / 1.3	Upon request	P1K0.420.6W.A.007	P1K0.420.6W.B.007
Order code			010.02464	010.02488
505	5 x 5 x 0.65 / 1.3	Upon request	Upon request	P1K0.505.6W.B.010
Order code				010.02686
516	5 x 1.6 x 0.65 / 1.3	P1K0.516.6W.Y.010	P1K0.516.6W.A.007	P1K0.516.6W.B.007
Order code		010.00260	010.01934	010.01935
520	5 x 2 x 0.65 / 1.3	P1K0.520.6W.Y.010	P1K0.520.6W.A.010	P1K0.520.6W.B.010
Order code		010.00282	010.00280	010.00279
538	5 x 3.8 x 0.65 / 1.3	Upon request	Upon request	P1K0.538.6W.B.010
Order code				010.00396
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.102.6W.B.007
Order code				010.00754
102	10 x 2 x 0.65 / 1.3	P1K0.102.6W.Y.010	P1K0.102.6W.A.010	P1K0.102.6W.B.010
Order code		010.00309	010.00753	010.00306

Order Information - 7W¹⁾ (Pt-wire, Ø 0.2 mm, (161) (232) / 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				
161	1.6 x 1.2 x 0.4 / 0.8	Upon request	P0K1.161.7W.A.010	P0K1.161.7W.B.010
Order code			010.00738	010.00687
232	2.3 x 2 x 0.65 / 1.3	P0K1.232.7W.Y.010	P0K1.232.7W.A.010	P0K1.232.7W.B.010
Order code		010.02074	010.00952	010.00402
308	3 x 0.8 x 0.4 / 0.6	P0K1.308.7W.Y.007	P0K1.308.7W.A.007	P0K1.308.7W.B.007
Order code		010.01037	010.00996	010.00997
520	5 x 2 x 0.65 / 1.3	Upon request	P0K1.520.7W.A.010	P0K1.520.7W.B.010
Order code			010.00107	010.00106
Nominal resistance: 1000 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	Upon request	P1K0.161.7W.A.007	P1K0.161.7W.B.007
Order code			010.02530	010.02531
232	2.3 x 2 x 0.65 / 1.3	Upon request	P1K0.232.7W.A.010	P1K0.232.7W.B.010
Order code			010.01791	010.00239
Size	Dimensions (L x W x H / H2 in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)



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308	3 x 0.8 x 0.4 / 0.6	P1K0.308.7W.Y.007	P1K0.308.7W.A.007	P1K0.308.7W.B.007
Order code		010.01681	010.00955	010.00656

¹⁾ Operating temperature range of -200 °C to +600 °C

Order Information - R (in round ceramic housing, Pt-cladded Ni-wire, Ø 0.2 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		P0K1.281.6W.A.007.R	P0K1.281.6W.B.007.R
Order code			010.00479	010.00478
451	4.5 x 13		P0K1.451.6W.A.007.R	P0K1.451.6W.B.007.R
Order code			010.00483	010.00482
Nominal resistance: 1000 Ω at 0 °C				
281	2.8 x 13		P1K0.281.6W.A.007.R	P1K0.281.6W.B.007.R
Order code			010.02388	010.02451
451	4.5 x 13		Upon request	P1K0.451.6W.B.007.R
Order code				010.02628

Order Information - D¹⁾ (substrate thickness, 0.4 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: 200 Ω at 0 °C				
516	5 x 1.6 x 0.4 / 1.05		P0K2.516.7W.A.007.D	P0K2.516.7W.B.007.D
Order code			010.02023	010.02039

¹⁾ Operating temperature range of -200 °C to +600 °C

Additional Documents

Application note:	Document name: ATP_E
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TEMPERATURE



FLOW



HUMIDITY



CONDUCTIVITY

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 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

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 = 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

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