



PW Series

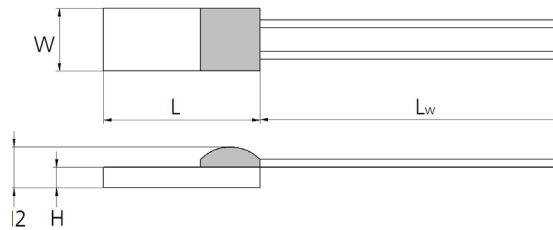
Platinum sensor with wires

For extended operating temperature range in class A

Benefits & Characteristics

- Capable of measuring in class A up to +600 °C
- Increased long-term stability
- Alternative to wire-wound sensors
- Short-term applicable up to +750 °C
- Very stable characteristics curve
- Available with same dimensions as a wire-wound sensor
- Very low hysteresis
- Customer-specific sensor available upon request

Illustration¹⁾



Dimension tolerances: W ±0.2 mm, L ±0.2 mm, H ±0.1 mm, H2 ±0.3 mm, L_w (up to 30 mm) ±1 mm

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:*	IST AG reference		
	IEC 60751 F0.15	A	-200 °C to +600 °C
	IEC 60751 F0.3	B	-200 °C to +600 °C
	IEC 60751 F0.6	C	-200 °C to +600 °C
	IEC 60751 F0.1	Y	-200 °C to +500 °C
	1/5 IEC 60751 F0.3	K*	-100 °C to +300 °C
Connection:*	Pt-wire, Ø 0.2 mm (solderable, weldable, crimpable, brazeable)		
Alternative wire construction:*	Inverted wires		
Recommended applied current: ¹⁾	0.2 mA at 100 Ω 0.09 mA at 500 Ω		

¹⁾ Self-heating must be considered



0.06 mA at 1000 Ω

Other alternatives:*

Housed in round ceramics (for dry environments only) - see data sheet DTP_Round_Housing_E

Grouped and paired

* Customer-specific alternatives available

Product photo



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

Size	Dimensions (L x W x H / H2; L _w in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8; 7.0	PW0K1.216.7W.Y.007	PW0K1.216.7W.A.007	PW0K1.216.7W.B.007
	Order code	101686	101700	101701
	Former Order code	010.03306	010.03320	010.03321
Nominal resistance: 500 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8; 7.0	PW0K5.216.7W.Y.007	PW0K5.216.7W.A.007	PW0K5.216.7W.B.007
	Order code	101702	101703	101704
	Former Order code	010.03322	010.03323	010.03324
Nominal resistance: 1000 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8; 7.0	PW1K0.216.7W.Y.007	PW1K0.216.7W.A.007	PW1K0.216.7W.B.007
	Order code	101716	101720	101721
	Former Order code	010.03339	010.03344	010.03345

Additional Documents

Application Note:	Document name: ATP_E
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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 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 = 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 W 1K0. 216. 7 W. B. 007



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