



# PW Series

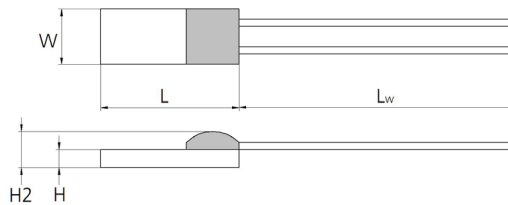
## Platinum sensor with wires

### 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

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



Dimension tolerances:  $W \pm 0.2 \text{ mm}$ ,  $L \pm 0.2 \text{ mm}$ ,  $H \pm 0.1 \text{ mm}$ ,  $H2 \pm 0.3 \text{ mm}$ ,  $L_w \text{ (up to 30 mm)} \pm 1 \text{ mm}$

<sup>1)</sup> 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: <sup>1)</sup>	0.2 mA at 100 Ω 0.09 mA at 500 Ω 0.06 mA at 1000 Ω		

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



Other alternatives:\*

Housed in round ceramics (for dry environments only) - see data sheet DTP\_Round\_Housing\_E

Grouped and paired

\* Customer-specific alternatives available

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

Size	Dimensions (L x W x H / H2; L <sub>w</sub> 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		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		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		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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