TEMPERATURE

FLOW

HUMIDITY

CONDUCTIVITY

200 °C series

Platinum sensor with wires

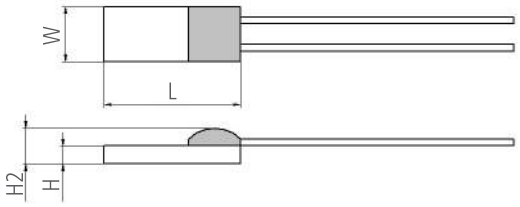
For low temperatures

INNOVATIVE SENSOR TECHNOLOGY

Benefits & Characteristics

- Excellent long-term stability
- Low self-heating
- Long isolated wires
- Stranded wires available
- Fast response time
- Metalized backside available
- Customer specific sensor available upon request

Illustration[1)]



1) For actual size, see dimensions

Technical Data

Operating temperature range:	-50 °C to +200 °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:*	Cu/Ag single wire with PTFE (solderable, weldable, crimpable)	
	Cu/Ag stranded wire with PTFE (solderable, weldable, crimpable)	
	Ag-wire, Ø 0.25 mm, metalized backside	
Alternative wire construction:*	Inverted wires	
	Extended 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	

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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 - 2I (Cu/Ag-wire, AWG30, PTFE insulated)

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	Upon request	P0K1.161.2I.B.050
Order code				010.02677
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.232.2I.B.030
Order code				010.02071
232	2.3 x 2 x 0.65 / 1.3	Upon request	P0K1.232.2I.A.050	P0K1.232.2I.B.050
Order code			010.02487	010.00678
516	5 x 1.6 x 0.65 / 1.3	Upon request	Upon request	P0K1.516.2I.B.030
Order code				010.00508
520	5 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.520.2I.B.100
Order code				010.00110
538	5 x 3.8 x 0.65 / 1.3	Upon request	Upon request	P0K1.538.2I.B.060
Order code				010.00527
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.102.2I.B.050
Order code				010.01710
Nominal resistance: 500 Ω at 0 °C				
516	5 x 1.6 x 0.65 / 1.3	Upon request	Upon request	P0K5.516.2I.B.080
Order code				010.02278
538	5 x 3.8 x 0.65 / 1.3	Upon request	Upon request	P0K5.538.2I.B.035
Order code				010.00200
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K5.102.2I.B.070
Order code				010.00210
Nominal resistance: 1000 Ω at 0 °C				
161	1.6 x 1.2 x 0.4 / 0.8	Upon request	Upon request	P1K0.161.2I.B.150
Order code				010.02674
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.232.2I.B.015
Order code				010.01691
232	2.3 x 2 x 0.65 / 1.3	P1K0.232.2I.Y.150	P1K0.232.2I.A.050	P1K0.232.2I.B.050
Order code		010.02475	010.02712	010.02225

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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)
520	5 x 2 x 0.65 / 1.3	Upon request	P1K0.520.2I.A.050	P1K0.520.2I.B.050
Order code			010.00566	010.00565
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.102.2I.B.045
Order code				010.00699
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.102.2I.B.120
Order code				010.02810

Order Information - 2L (Cu/Ag-stranded wire, AWG28/7, PTFE insulated)

Nominal resistance: 100 Ω at 0 °C				
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.232.2L.B.050
Order code				010.00966
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.232.2L.B.100
Order code				010.00609
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.232.2L.B.150
Order code				010.00574
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.232.2L.B.1500
Order code				010.02115
520	5 x 2 x 0.65 / 1.3	Upon request	Upon request	P0K1.520.2L.B.250
Order code				010.01116
Nominal resistance: 1000 Ω at 0 °C				
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.232.2L.B.150
Order code				010.00408
232	2.3 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.232.2L.B.200
Order code				010.01884
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.102.2L.B.270
Order code				010.00655

Order Information - 2W (Ag-wire, Ø 0.25 mm, 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				
232	2.3 x 2 x 0.65 / 1.3	Upon request	P0K1.232.2W.A.010.M	P0K1.232.2W.B.010.M
Order code			010.01684	010.00661

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Additional Documents

	Document name:
Application note:	ATP_E

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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

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	0K1.	232.	6	W.	A.	010.	U

ISO 9001

RoHS

INNOVATIVE SENSOR TECHNOLOGY
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