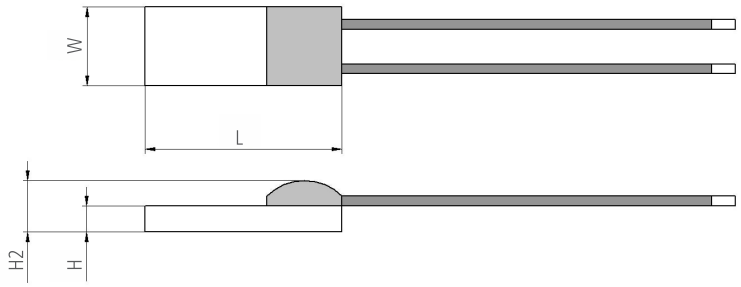
150 °C series
Platinum sensor with wires
For low temperatures

INNOVATIVE SENSOR TECHNOLOGY

Benefits & Characteristics

- Excellent long-term stability
- Low self-heating
- Long isolated wires
- 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 +150 °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
	IEC 60751 F0.15	A
	IEC 60751 F0.3	B
	IEC 60751 F0.6	C
	IEC 60751 F0.1	Y
Connection:*	Enameled Cu wire, Ø 0.2 mm	
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	
Other alternatives:*	Metalized backside	
	Housed in round ceramics (for dry environments only)	
	Grouped and paired	
	Substrate thickness	

* Customer specific alternatives available

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Order Information - 1E (Enameled Cu wire, Ø 0.2 mm (161) / Ø 0.15 mm (308))

Size	Dimensions (L x W x H / H2 in mm) L ±0.2 mm, W ±0.2 mm, H ±0.1 mm, H2 ±0.3 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 0.25 / 0.6	Upon request	Upon request	P0K1.161.1E.B.065
Order code				010.00693
308	3 x 0.8 x 0.25 / 0.6	Upon request	Upon request	P0K1.308.1E.B.100
Order code				010.01672
With metalized backside				
232	2.3 x 2 x 0.65 / 1.3			P0K1.232.1E.B.015.M
Order code				010.02444
Nominal resistance: 1000 Ω at 0 °C				
161	1.6 x 1.2 x 0.25 / 0.6	Upon request	P1K0.161.1E.A.040	P1K0.161.1E.B.020
Order code			010.01732	010.02327
308	3 x 0.8 x 0.25 / 0.6	Upon request	Upon request	P1K0.308.1E.B.050
Order code				010.01189

Additional Documents

	Document name:
Application Note:	ATP_E

Order Information
Platinum Sensor
Secondary reference

INNOVATIVE SENSOR TECHNOLOGY

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	0K1.	232.	1	E.	B.	015.	M

INNOVATIVE SENSOR TECHNOLOGY
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