Innovative Sensor Technology
physical. chemical. biological.

3-wire sensor up to 200°C and 400 °C

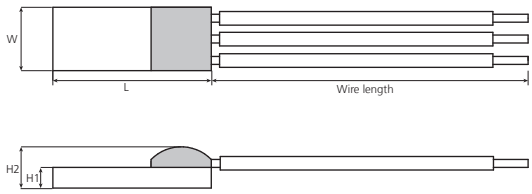
Platinum sensor with wires

For low to medium temperatures

Benefits & Characteristics

- Compensation of the wire resistance by 3-wire construction
- Excellent long-term stability
- Low self-heating
- Long insulated wires
- Well suited for applications with tight tolerances
- Fast response time
- Metallized 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	(2l)
	-200 °C to +400 °C	(4W)
Nominal resistance:*	100 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
Connection:*	-50 °c to +200 °C	Cu/Ag-wire, AWG30, PTFE-insulated (solderable, weldable, crimpable), 5 mm stripped
	-200 °C to +400 °C	Ag wire, Ø 0.25 mm
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:*	Metallized backside	
	Housed in round ceramics (for dry environments only)	
	Grouped and paired	
	Substrate thickness	

* Customer-specific alternatives available

Order Information - 3 wires, 2I (Cu/Ag-wire, AWG30, PTFE-insulated), 5 mm stripped

Chip Size:	Dimensions (L x W x H1 / H2 in mm) L ±0.2 mm, W ±0.2 mm, H1 ±0.1 mm, H2 ±0.3 mm	Wire length	F0.15 (class A)	F0.3 (class B)	F0.6 (class C)
Nominal resistance: 100 Ω at 0 °C					
232	2.3 x 2 x 0.65 / 1.3	200	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	200	On request	P0K1.520.2I.B.200-3	On request
Order code				100948	
Former order code				*010.02200*	
232	2.3 x 2 x 0.65 / 1.3	450	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	450	P0K1.520.2I.A.450-3	P0K1.520.2I.B.450-3	P0K1.520.2I.C.450-3
Order code			100962	100174	100662
Former order code			*010.02231*	*010.00112*	*010.01339*
232	2.3 x 2 x 0.65 / 1.3	600	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	600	On request	P0K1.520.2I.B.600-3	P0K1.520.2I.C.600-3
Order code				100547	100663
Former order code				*010.01009*	*010.01340*
Nominal resistance: 1000 Ω at 0 °C					
232	2.3 x 2 x 0.65 / 1.3	200	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	200	On request	On request	On request
Order code					
232	2.3 x 2 x 0.65 / 1.3	450	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	450	On request	On request	On request
Order code					
232	2.3 x 2 x 0.65 / 1.3	600	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	600	On request	On request	On request
Order code					

Order Information - 3 wires, 4W (Ag wire, Ø 0.25 mm)

Chip Size:	Dimensions (L x W x H1 / H2 in mm) L ±0.2 mm, W ±0.2 mm, H1 ±0.1 mm, H2 ±0.3 mm	Wire length	F0.15 (class A)	F0.3 (class B)	F0.6 (class C)
Nominal resistance: 100 Ω at 0 °C					
232	2.3 x 2 x 0.65 / 1.3	200	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	200	On request	On request	On request
Order code					
232	2.3 x 2 x 0.65 / 1.3	450	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	450	On request	On request	On request
Order code					
232	2.3 x 2 x 0.65 / 1.3	600	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	600	On request	P0K1.520.4W.B.600-3	On request
Order code				100175	
Former order code				*010.00116*	
538	5.0 x 3.8 x 0.65 / 1.3	600	On request	P0K1.538.4W.B.600-3	P0K1.538.4W.C.600-3
Order code				100182	100666
Former order code				*010.00125*	*010.01385*
Nominal resistance: 1000 Ω at 0 °C					
232	2.3 x 2 x 0.65 / 1.3	200	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	200	On request	On request	On request
Order code					
232	2.3 x 2 x 0.65 / 1.3	450	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	450	On request	On request	On request
Order code					
232	2.3 x 2 x 0.65 / 1.3	600	On request	On request	On request
Order code					
520	5.0 x 2.1 x 0.65 / 1.2	600	On request	On request	On request
Order code					

Additional Documents

	Document name:
Application Note:	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

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	=	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 (-x: amount of wires if more than 2)

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. 520. 2 I. B. 450-3

RoHS

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