Innovative Sensor Technology

physical. chemical. biological.

750 °C Series

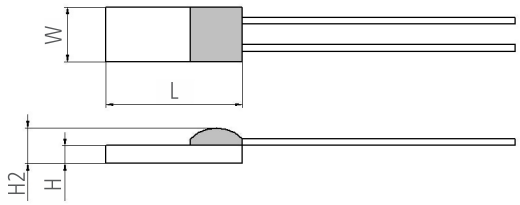
Platinum sensor with wires

For very high temperatures

Benefits & Characteristics

- Excellent long-term stability
- Low self-heating
- Fast response time
- Vibration and temperature shock resistant
- Simple interchangeability
- Customer-specific sensor available upon request

Illustration[1)]



1) For actual size, see dimensions

Technical Data

Operating temperature range:	-200 °C to +750 °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:*	Pt-wire, Ø 0.2 mm (solderable, weldable, crimpable, brazeable)	
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:*	Grouped and paired	
	Substrate thickness	

* Customer-specific alternatives available

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

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				
516	5 x 1.6 x 0.65 / 1.3	Upon request	P0K1.516.7W.A.007	P0K1.516.7W.B.007
Order code			010.00644	010.00643
102	10 x 2 x 0.65 / 1.3	Upon request	P0K1.102.7W.A.010	P0K1.102.7W.B.010
Order code			010.00156	010.00155
Nominal resistance: 500 Ω at 0 °C				
516	5 x 1.6 x 0.65 / 1.3	Upon request	Upon request	P0K5.516.7W.B.007
Order code				010.01660
Nominal resistance: 1000 Ω at 0 °C				
216	2.5 x 1.6 x 0.65 / 1.3	Upon request	Upon request	P1K0.216.7W.B.010
Order code				310.00158
516	5 x 1.6 x 0.65 / 1.3	P1K0.516.7W.Y.010	P1K0.516.7W.A.010	P1K0.516.7W.B.010
Order code		010.01683	010.01073	010.01072
520	5 x 2 x 0.65 / 1.3	Upon request	P1K0.520.7W.A.010	P1K0.520.7W.B.010
Order code			010.00953	010.00283
102	10 x 2 x 0.65 / 1.3	Upon request	Upon request	P1K0.102.7W.B.010
Order code				010.00319

Additional Documents

	Document name:
Application Note:	ATP_E

Innovative Sensor Technology
physical. chemical. biological.

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 0K1. 516. 7 W. A. 007. U

ISO 9001 RoHS

Innovative Sensor Technology IST AG, Stegrütistrasse 14, 9642 Ebnat-Kappel, Switzerland
Phone: +41 71 992 01 00 | Fax: +41 71 992 01 99 | Email: info@ist-ag.com | www.ist-ag.com