TEMPERATURE

FLOW

HUMIDITY

CONDUCTIVITY

PW series

Platinum sensor with wires

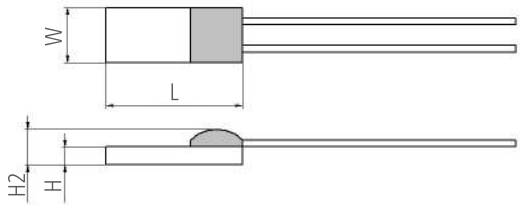
For extended operating temperature range in class A

INNOVATIVE SENSOR TECHNOLOGY

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[1)]



1) 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	
	DIN EN 60751 F0.15	A	-200 °C to +600 °C
	DIN EN 60751 F0.3	B	-200 °C to +600 °C
	DIN EN 60751 F0.6	C	-200 °C to +600 °C
	DIN EN 60751 F0.1	Y	-200 °C to +500 °C
	1/5 DIN EN 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:[1)]	0.2 mA at 100 Ω		
[1)] Self-heating must be considered	0.09 mA at 500 Ω		
	0.06 mA at 1000 Ω		
Other alternatives:*	Housed in round ceramics (for dry environments only)		
	Grouped and paired		

* Customer specific alternatives available

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

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				
216	2.5 x 1.5 x 0.65 / 1.1	PW0K1.216.7W.Y.007	PW0K1.216.7W.A.007	PW0K1.216.7W.B.007
Order code		310.00113	310.00112	310.00111
Nominal resistance: 500 Ω at 0 °C				
216	2.5 x 1.5 x 0.65 / 1.1	PW0K5.216.7W.Y.007	PW0K5.216.7W.A.007	PW0K5.216.7W.B.007
Order code		310.00246	310.00245	310.00161
Nominal resistance: 1000 Ω at 0 °C				
216	2.5 x 1.5 x 0.65 / 1.1	PW1K0.216.7W.Y.007	PW1K0.216.7W.A.007	PW1K0.216.7W.B.007
Order code		310.00177	310.00182	310.00183

Order Information - R (in round ceramic housing, Pt-wire, Ø 0.2 mm)

Size	Dimensions (Ø x L in mm)	F0.1 (class Y)	F0.15 (class A)	F0.3 (class B)
Nominal resistance: 100 Ω at 0 °C				
281	2.8 x 13	PW0K1.281.7W.Y.004.R	PW0K1.281.7W.A.004.R	PW0K1.281.7W.B.004.R
Order code		310.00263	310.00255	310.00408

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

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

ISO 9001

RoHS

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