Innovative Sensor Technology

physical. chemical. biological.

PG Series

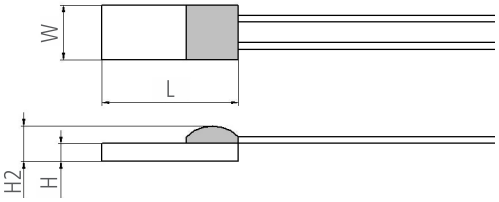
Platinum sensor with wires

For applications with GOST-coefficient 3911 ppm/K

Benefits & Characteristics

- Capable of measuring in class A up to +600 °C
- Short-term applicable up to +750 °C
- Very low hysteresis
- Very stable characteristics curve
- GOST norm compatible (3911 ppm/K characteristics curve)
- Available with same dimensions as a wire-wound sensor
- 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:*	50 Ω at 0 °C		
	100 Ω at 0 °C		
	500 Ω at 0 °C		
	1000 Ω at 0 °C		
Characteristics curve:	3911 ppm/K		
Long-term stability:	< 0.04% at 1000 h at maximal operating temperature		
Tolerance class:*		IST AG reference	
	GOST 8.625-2006 F0.15	A	-200 °C to +600 °C
	GOST 8.625-2006 F0.3	B	-200 °C to +600 °C
	GOST 8.625-2006 F0.6	C	-200 °C to +600 °C
	GOST 8.625-2006 F0.1	Y	-200 °C to +500 °C
Connection:*	Pt wire, Ø 0.2 mm (solderable, weldable, crimpable) -200 °C to +600 °C		
	Pt/Ni clad wire, Ø 0.2 mm (solderable, weldable, crimpable) -200 °C to +400 °C		
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

Order Information - 4K (Pt/Ni-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: 50 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8	Upon request	PG050.216.4K.A.010	PG050.216.4K.B.010
Order code			010.02541	010.02542
Nominal resistance: 100 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8	PG0K1.216.4K.Y.010	PG0K1.216.4K.A.010	PG0K1.216.4K.B.010
Order code		010.02723	010.02544	010.02545
Nominal resistance: 500 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8	Upon request	Upon request	PG0K5.216.4K.B.010
Order code				010.02589

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: 50 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8	Upon request	Upon request	PG050.216.7W.B.007
Order code				010.02761
Nominal resistance: 100 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8	PG0K1.216.7W.Y.007	PG0K1.216.7W.A.007	PG0K1.216.7W.B.007
Order code		010.02762	010.02547	010.02548
Nominal resistance: 500 Ω at 0 °C				
216	2.4 x 1.4 x 0.45 / 0.8	PG0K5.216.7W.Y.007	PG0K5.216.7W.A.007	PG0K5.216.7W.B.007
Order code		010.02570	010.02572	010.02573

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

Size	Dimensions (Ø x L in mm) Ø ±0.2 mm, L ±1 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	Upon request	PG0K1.281.4K.A.006.R	PG0K1.281.4K.B.006.R
Order code			310.00447	310.00264

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

Size	Dimensions (Ø x L in mm) Ø ±0.2 mm, L ±1 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	PG0K1.281.7W.Y.004.R	PG0K1.281.7W.A.004.R	PG0K1.281.7W.B.004.R
Order code		310.00270	310.00269	310.00268

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

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 G 0K1. 281. 7 W. B. 004. R

ISO 9001 RoHS

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