PG Series

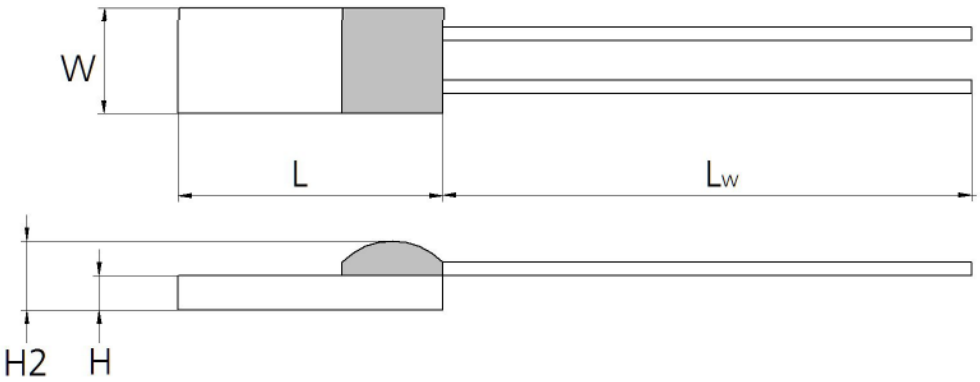
Platinum sensor with wires

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 in order information

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 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)Self-heating must be considered*	0.2 mA at 100 Ω 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

Nominal Resistance	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	Class*	Order code	Product name (secondary reference)	Wire length in mm	Special
4K (Pt/Ni-wire, Ø 0.2 mm)							
50 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.1 (class Y)	On request	PG050.216.4K.Y.010	10	
50 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.15 (class A)	101120	PG050.216.4K.A.010	10	
50 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.3 (class B)	101121	PG050.216.4K.B.010	10	
100 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.1 (class Y)	101230	PG0K1.216.4K.Y.010	10	
100 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.15 (class A)	101122	PG0K1.216.4K.A.010	10	
100 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.3 (class B)	101123	PG0K1.216.4K.B.010	10	
500 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.1 (class Y)	On request	PG0K5.216.4K.Y.010	10	
500 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.15 (class A)	On request	PG0K5.216.4K.A.010	10	
500 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.3 (class B)	101149	PG0K5.216.4K.B.010	10	
7W (Pt-wire, Ø 0.2 mm)							
50 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.1 (class Y)	On request	PG050.216.7W.Y.007	7	
50 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.15 (class A)	On request	PG050.216.7W.A.007	7	
50 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.3 (class B)	101255	PG050.216.7W.B.007	7	
100 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.1 (class Y)	101256	PG0K1.216.7W.Y.007	7	
100 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.15 (class A)	101125	PG0K1.216.7W.A.007	7	
100 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.3 (class B)	101126	PG0K1.216.7W.B.007	7	
500 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.1 (class Y)	101137	PG0K5.216.7W.Y.007	7	
500 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.15 (class A)	On request	PG0K5.216.7W.A.007	7	
500 Ω	216	2.4 x 1.4 x 0.45 / 0.8	F0.3 (class B)	On request	PG0K5.216.7W.B.007	7	

Nominal Resistance	Size	Dimensions (Ø x L in mm) Ø ±0.2 mm, L ±1 mm	Class*	Order code	Product name (secondary reference)	Wire length in mm	Special
R (in round ceramic housing, Pt/Ni-wire, Ø 0.2 mm)							
100 Ω	281	2.8 x 13	F0.1 (class Y)	On request	PG0K1.281.4K.Y.006.R	6	
100 Ω	281	2.8 x 13	F0.15 (class A)	On request	PG0K1.281.4K.A.006.R	6	
100 Ω	281	2.8 x 13	F0.3 (class B)	On request	PG0K1.281.4K.B.006.R	6	
R (in round ceramic housing, Pt-wire, Ø 0.2 mm)							
100 Ω	281	2.8 x 13	F0.1 (class Y)	On request	PG0K1.281.7W.Y.004.R	4	
100 Ω	281	2.8 x 13	F0.15 (class A)	104065	PG0K1.281.7W.A.004.R	4	
100 Ω	281	2.8 x 13	F0.3 (class B)	104064	PG0K1.281.7W.B.004.R	4	

Additional Documents

Application Note	Document name: APT_E

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	=	Extended wire	L	=	Insulated stranded wire
W	=	Wire	E	=	Enameled Cu-wire
FW	=	Flat wire	SE	=	Perpendicular enameled Cu-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

Innovative Sensor Technology IST AG • Stegrütistrasse 14 • 9642 Ebnat-Kappel • Switzerland
+41 71 992 01 00 • info@ist-ag.com •www.ist-ag.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Innovative Sensor Technology:

PG0K1.216.7W.A.007 PG0K1.216.4K.A.010 PG0K5.216.4K.B.010