



## PG Series



### Platinum sensor with wires



For applications with GOST-coefficient 3911 ppm/K



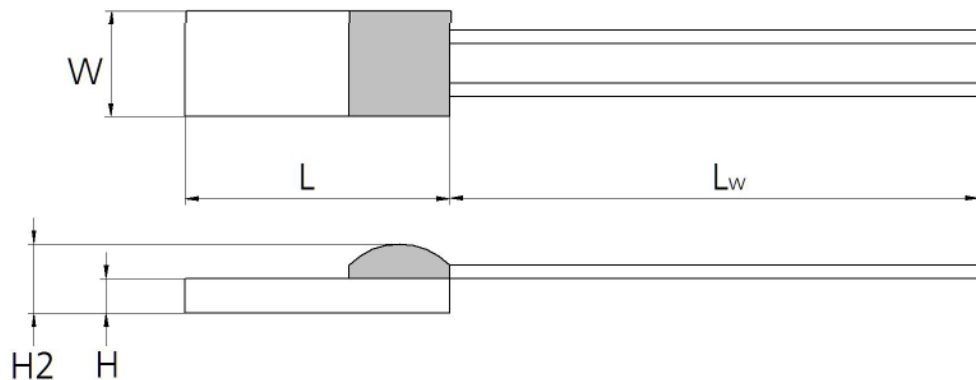
#### Benefits & characteristics



- 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 <sup>1)</sup>



<sup>1)</sup> 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:

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 $\pm 0.2$ mm, W $\pm 0.2$ mm, H $\pm 0.1$ mm, H2 $\pm 0.3$ mm	Class*	Order code	Product name (secondary reference)	Wire length in mm	Special
--------------------	------	--	--------	------------	---------------------------------------	----------------------	---------

### 4K (Pt/Ni-wire, Ø 0.2 mm)

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

### R (in round ceramic housing, Pt/Ni-wire, $\varnothing$ 0.2 mm)

100 $\Omega$	281	2.8 x 13	F0.1 (class Y)	On request	PG0K1.281.4K.Y.006.R	6	
100 $\Omega$	281	2.8 x 13	F0.15 (class A)	On request	PG0K1.281.4K.A.006.R	6	
100 $\Omega$	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, $\varnothing$ 0.2 mm)

100 $\Omega$	281	2.8 x 13	F0.1 (class Y)	On request	PG0K1.281.7W.Y.004.R	4	
100 $\Omega$	281	2.8 x 13	F0.15 (class A)	104065	PG0K1.281.7W.A.004.R	4	
100 $\Omega$	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 $\Omega$ 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](mailto:info@ist-ag.com) • [www.ist-ag.com](http://www.ist-ag.com)

All mechanical dimensions are valid at 25 °C ambient temperature, if not differently indicated • All data except the mechanical dimensions only have information purposes and are not to be understood as assured characteristics • Technical changes or product specifications without previous announcement reserved • The information on this data sheet was examined carefully and will be accepted as correct; No liability in case of mistakes • Load with extreme values during a longer period can affect the reliability • The material contained herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner • All rights reserved.