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) 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) 0.1 mA at 100 Ω
0.09 mA at 500 Ω
0.06 mA at 1000 Ω
1) Self-heating must be considered
### 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)

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions (L x W x H / H2 in mm)</th>
<th>F0.1 (class Y)</th>
<th>F0.15 (class A)</th>
<th>F0.3 (class B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L ±0.2 mm, W ±0.2 mm, H ±0.1 mm, H2 ±0.3 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nominal resistance: 50 Ω at 0 °C

- 216 2.4 x 1.4 x 0.45 / 0.8
- Order code: PG050.216.4K.A.010
- Order code: 010.02541
- Order code: 010.02542

Nominal resistance: 100 Ω at 0 °C

- 216 2.4 x 1.4 x 0.45 / 0.8
- Order code: PG0K1.216.4K.Y.010
- Order code: 010.02723
- Order code: 010.02544
- Order code: 010.02545

Nominal resistance: 500 Ω at 0 °C

- 216 2.4 x 1.4 x 0.45 / 0.8
- Order code: PG0K5.216.4K.B.010
- Order code: 010.02589

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

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions (L x W x H / H2 in mm)</th>
<th>F0.1 (class Y)</th>
<th>F0.15 (class A)</th>
<th>F0.3 (class B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L ±0.2 mm, W ±0.2 mm, H ±0.1 mm, H2 ±0.3 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nominal resistance: 50 Ω at 0 °C

- 216 2.4 x 1.4 x 0.45 / 0.8
- Order code: PG050.216.7W.A.007
- Order code: 010.02761

Nominal resistance: 100 Ω at 0 °C

- 216 2.4 x 1.4 x 0.45 / 0.8
- Order code: PG0K1.216.7W.Y.007
- Order code: 010.02762
- Order code: 010.02547
- Order code: 010.02548

Nominal resistance: 500 Ω at 0 °C

- 216 2.4 x 1.4 x 0.45 / 0.8
- Order code: PG0K5.216.7W.B.007
- Order code: 010.02570
- Order code: 010.02572
- Order code: 010.02573
### Order Information - R (in round ceramic housing, Pt/Ni-wire, Ø 0.2 mm)

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions (Ø x L in mm)</th>
<th>Ø ±0.2 mm, L ±1 mm</th>
<th>F0.1 (class Y)</th>
<th>F0.15 (class A)</th>
<th>F0.3 (class B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Upon request</td>
<td>PG0K1.281.4K.A.006.R</td>
<td>PG0K1.281.4K.B.006.R</td>
<td></td>
</tr>
<tr>
<td>281</td>
<td>2.8 x 13</td>
<td></td>
<td>310.00447</td>
<td>310.00264</td>
<td></td>
</tr>
</tbody>
</table>

Nominal resistance: 100 Ω at 0 °C

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

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimensions (Ø x L in mm)</th>
<th>Ø ±0.2 mm, L ±1 mm</th>
<th>F0.1 (class Y)</th>
<th>F0.15 (class A)</th>
<th>F0.3 (class B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Upon request</td>
<td>PG0K1.281.7W.Y.004.R</td>
<td>PG0K1.281.7W.A.004.R</td>
<td>PG0K1.281.7W.B.004.R</td>
</tr>
<tr>
<td>281</td>
<td>2.8 x 13</td>
<td></td>
<td>310.00270</td>
<td>310.00269</td>
<td>310.00268</td>
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</table>

Nominal resistance: 100 Ω at 0 °C

### Additional Documents

<table>
<thead>
<tr>
<th>Document name:</th>
</tr>
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<tbody>
<tr>
<td>ATP_E</td>
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</table>
## Order Information

### Temperature Platinum Sensor

**Secondary reference**

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTPPG_E2.2.2</td>
<td>Temperature Platinum</td>
</tr>
</tbody>
</table>

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**Material**

- **P** = Platinum

**TCR**

- **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**

<table>
<thead>
<tr>
<th>Operating temperature range</th>
<th>Resistance in Ω at 0 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-50 °C to +150 °C</td>
</tr>
<tr>
<td>2</td>
<td>-50 °C to +200 °C</td>
</tr>
<tr>
<td>3</td>
<td>-200 °C to +300 °C</td>
</tr>
<tr>
<td>4</td>
<td>-200 °C to +400 °C</td>
</tr>
</tbody>
</table>

**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
  - **D** = substrate thickness 0.38 mm
  - **R** = round housing
  - **U** = inverted welding
  - **S** = special
  - **W** = sintered powder