





For the automatic assembling on PCB by soldering or bonding

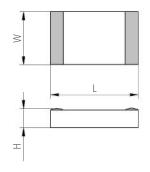


Benefits & Characteristics

- CONDUCTIVITY
- Excellent long-term stability
- Minimum space consumption on PCB
- Fast response time
- Low self-heating

- Optimal price-performance ratio
- Bondable versions available
- Customer specific sensor available upon request

Illustration¹⁾



1) For actual size, see dimensions

Technical Data

| Operating temperature range: | 1FC | -50 °C to +150 °C |
|--|------------------------------|---|
| | 2FC | -50 °C to +250 °C |
| | 3FC | -50 °C to +250 °C |
| | 5FC | -50 °C to +400 °C |
| | 6FC | -50 °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 130 °C | |
| Tolerance class (dependent on temperature range):* | | IST AG reference |
| | DIN EN 60751 F0.3 | В |
| | DIN EN 60751 F0.6 | С |
| Connection:* | 1FC | tin-coated, LMP lead-free, 96.5Sn/3Ag/0.5Cu) (reflow soldering) |
| | 2FC | tin-coated, HMP soldering depot, 5Sn/93.5Pb/1.5Ag (reflow soldering) |
| | 3FC | Au-Pads (bonding pads), various types available |
| | 5FC | reinforced thin film Pt-pads (solderable pads) |
| | 6FC | thick film Pt-pads (weldable) |







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CONDUCTIVIT

| Solderability: ¹⁾ 1) The soldering process can influence accuracy | 235 °C \leq 8 s (DIN IEC 68 T2-20, Ta Meth. 1) - 1FC, 2FC, 5FC |
|---|--|
| Resistance to soldering heat: | 260 °C 10 s (DIN IEC 68 T2-20, Ta Meth. 1A) - 1FC, 2FC, 5FC |
| Recommended applied current: ²⁾ | 1 mA at 100 Ω |
| 2) Self-heating must be considered | 0.5 mA at 500 Ω |
| | 0.3 mA at 1000 Ω |
| Other alternatives:* | Metalized backside |
| | Substrate thickness |
| Packaging: | < 100 pcs in trays |
| | > 100 pcs taped on reel |
| | > 100 pcs diced substrate on foil |
| Other alternatives:* | 0.3 mA at 1000 Ω Metalized backside Substrate thickness < 100 pcs in trays > 100 pcs taped on reel |

* Customer specific alternatives available

Order Information - 1FC (Contacts tin-coated (96.5Sn/3Ag/0.5Cu), LMP lead-free)

| Size | Dimensions (L x W x H in mm) | | F0.3 (class B) |
|--|------------------------------|------------------|--------------------------------|
| Packed in trays (< 100 pcs) | | | |
| Nominal resistan | ce: 100 Ω at 0 °C | | |
| 0603 Order code | 1.5 x 0.75 x 0.4 | | POK1.0603.1FC.B 310.00655 |
| 0805 Order code | 1.9 x 1.15 x 0.4 | | POK1.0805.1FC.B 010.02586 |
| Nominal resistan | ce: 500 Ω at 0 °C | | |
| 0805 Order code | 1.9 x 1.15 x 0.4 | | РОК5.0805.1FC.B 010.02705 |
| Nominal resistan | ce: 1000 Ω at 0 °C | | |
| 0603 Order code | 1.5 x 0.75 x 0.4 | | P1K0.0603.1FC.B 310.00656 |
| 0805 Order code | 1.9 x 1.15 x 0.4 | | P1K0.0805.1FC.B 010.02557 |
| Taped on reel (> | 100 pcs) | | |
| Nominal resistance: 500 Ω at 0 °C | | | |
| 0805 Order code | 1.9 x 1.15 x 0.4 | Sensor side down | POK5.0805.1FC.B.S 010.02706 |



INNOVATIVE SENSOR TECHNOLOGY



HUMID

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| ΟΙΤΥ | Size | Dimensions (L x W x H in mm) | | F0.3 (class B) |
|----------|-------------------|------------------------------|------------------|-------------------|
| | Nominal resistan | ce: 1000 Ω at 0 °C | | |
| UCTIVITY | 0805 | 1.9 x 1.15 x 0.4 | Sensor side down | P1K0.0805.1FC.B.S |
| | Order code | | | 010.02558 |
| | Diced substrate c | on foil (> 100 pcs) | | |
| | Nominal resistan | ce: 1000 Ω at 0 °C | | |

| 0805 | 1.9 x 1.15 x 0.4 | P1K0.0805.1FC.B.S |
|------------|------------------|-------------------|
| Order code | | 010.02602 |

Order Information - 2FC (Contacts tin-coated, soldering depot, HMP, 5Sn/93.5Pb/1.5Ag)

Available upon request

Order Information - 3FC (Au-Pads (bonding pads), various types available)

| Size | Dimensions (L x W x H in mm) | F0.3 (class B) | |
|---|------------------------------|-----------------|--|
| Packed in trays (< | < 100 pcs) | | |
| Nominal resistance | ce: 100 Ω at 0 °C | | |
| 0805 | 1.9 x 1.15 x 0.4 | P0K1.0805.3FC.B | |
| Order code | | 310.00536 | |
| 1206 | 2.9 x 1.4 x 0.4 | POK1.1206.3FC.B | |
| Order code | | 310.00499 | |
| Nominal resistance: 1000 Ω at 0 °C | | | |
| 0603 | 1.5 x 0.75 x 0.4 | P0K1.0805.3FC.B | |
| Order code | | 310.00653 | |
| 0805 | 1.9 x 1.15 x 0.4 | P1K0.0805.3FC.B | |
| Order code | | 010.02749 | |
| 161 | 1.6 x 1.2 x 0.25 | P1K0.161.3FC.B | |
| Order code | | 010.01863 | |







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CONDUCTIVITY

Size Dimensions (L x W x H in mm)

Diced substrate on foil (> 100 pcs)

 Nominal resistance: 1000 Ω at 0 °C

 0805
 1.9 x 1.15 x 0.4

 Order code
 0

POK1.0805.3FC.B.S 010.02717

F0.3 (class B)

Order Information - 5FC (Reinforced thin film Pt-pads (solderable pads))

Available upon request

Order Information - 6FC (Thick film Pt-pads (weldable))

| Size | Dimensions (L x W x H in mm) | F0.3 (class B) |
|--------------------|------------------------------|----------------|
| Nominal resistance | te: 1000 Ω at 0 °C | |
| 161 | 2 x 1.5 x 0.4 | P1K0.161.6FC.B |
| Order code | | 010.00626 |
| | | |
| Additional De | ocuments | |
| | | |

| | Document name: |
|-------------------|----------------|
| Application note: | ATP_E |



Order Information FC platinum sensor





Secondary reference

| HUMIDITY | Material P = Platin |
|--------------|--|
| CONDUCTIVITY | TCR Pt 3850 ppm/K |
| | Resistance in Ω at 0 °C Size in mm |
| | Operating temperature range |
| | $1 = -50 \degree C \text{ to } +150 \degree C$ $4 = -50 \degree C \text{ to } +250 \degree C$ |
| | $2 = -50 \degree C \text{ to } +150 \degree C / 250 \degree C $ $5 = -50 \degree C \text{ to } +400 \degree C$ |
| | $3 = -50 \degree C \text{ to } +150 \degree C / 250 \degree C = -50 \degree C \text{ to } +600 \degree C$ |
| | Connection (SMD/FC) |
| | (2)P = tin-coated (96.5Sn/3Ag/0.5Cu), (1)FC = tin-coated, LMP lead-free, LMP lead-free, (reflow soldering) 96.5Sn/3Ag/0.5Cu) |
| | (3)P = tin-coated (5Sn/93.5Pb/1.5Ag), (2)FC = tin-coated, soldering depot, HMP, HMP, (reflow soldering) 5Sn/93.5Pb/1.5Ag |
| | (4)P = gold-coated, (solderable (3)FC = Au-Pads (bonding pads), various types available |
| | (5)FC = reinforced thin film Pt-pads |
| | (6)FC = thick film Pt-pads |
| | |
| | Tolerance class |
| | A^{11} = DIN EN 60751 F0.15 C = DIN EN 60751 F0.6 |
| | B = DIN EN 60751 F0.3 K = customer specific |
| | Special |
| | S = special M = metallized backside |
| | |
| | P 0K1. 0805. 2 P. A. S |
| | 1) Class A only available as SMD |





INNOVATIVE SENSOR TECHNOLOGY

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