





# For the automatic assembling on PCB by soldering or bonding

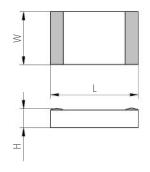


### Benefits & Characteristics

- 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

### Illustration<sup>1)</sup>



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: <sup>1)</sup> 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: <sup>2)</sup>	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 $\Omega$ 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 $\Omega$ 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	







### For the automatic assembling on PCB by soldering or bonding



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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