

## EC-Series - Polymer Encapsulated Pt Temperature Sensor

Temperature range -50 °C to +260 °C

### Performance Characteristics

- Flexible fluorocarbon housing
- Water and dustproof acc. to IP69H
- Excellent vibration and shock resistance
- High dielectric strength
- According to DIN EN IEC 60751

### Application Examples

- E-motors for mobility
- Industrial torque motors
- Charging stations and sockets
- Analytical equipment
- HVAC

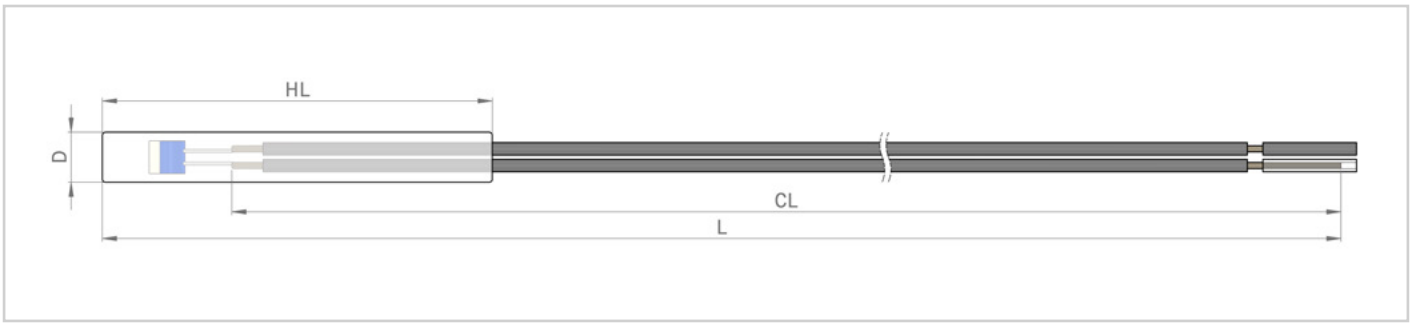


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### Dimensions and Materials

No.	Product Type	Element Nominal Resistance $R_0$ [ $\Omega$ ]	Dimensions and Tolerances (mm)				Conductor			Order Number
			HL	D	CL	L	Core (AWG)	Insulation	Color	
1	EC3032-C	Pt100 / F 0.3	30 $\pm 5$	3.2 $+0.2 -0.4$	400 $\pm 10$	408 $\pm 10$	24/19 NPC	PTFE	Red	5180937
2	EC3032-C	Pt1000 / F 0.3	30 $\pm 5$	3.2 $+0.2 -0.4$	397 $\pm 10$	405 $\pm 10$	24/19 NPC	PTFE	Red	5016951
3	EC3032-C Automotive	Pt1000 / F 0.3	30 $\pm 5$	3.2 $+0.2 -0.4$	400 $\pm 10$	408 $\pm 10$	24/19 NPC	PTFE	Red	5161009
4	EC3021-C	Pt1000 / F 0.3	30 $\pm 5$	2.1 $+0.1 -0.4$	250 $\pm 10$	258 $\pm 10$	30/07 NPC	PTFE	Blue	5185633
5	EC3021-C	Pt100 / F 0.3	30 $\pm 5$	2.1 $+0.1 -0.4$	250 $\pm 10$	258 $\pm 10$	30/07 NPC	PTFE	Blue	5185634
6	EC1732-C	Pt1000 / F 0.3	17 $+3 -2$	3.2 $+0.2 -0.4$	1550 $\pm 25$	1558 $\pm 25$	24/19 NPC	PTFE	White	5184744
7	EC3045-C	Pt1000 / F 0.3	30 $\pm 5$	4.5 Max.	400 $\pm 10$	408 $\pm 10$	24/19 NPC	PTFE UL1659	Black	5192571

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### Performance Data

No.	Temperature Range	Dielectric Strength AC (Housing)	Response Time Water ( $v = 0.4 \text{ m/s}$ )		Pull Force [N]	Conductor Resistance [ $\Omega/\text{m}$ ]	Application
			T0.5 [s]	T0.9 [s]			
1	-50 °C to +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 ±10 %	Multi-Purpose
2	-50 °C to +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 ±10 %	Multi-Purpose
3	-50 °C to +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 ±10 %	Automotive
4	-50 °C to +260 °C	3 kV / 60 s	1.8	4.8	> 25	0.32 ±10 %	Multi-Purpose
5	-50 °C to +260 °C	3 kV / 60 s	1.8	4.8	> 25	0.32 ±10 %	Multi-Purpose
6	-50 °C to +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 ±10 %	Multi-Purpose
7	-50 °C to +200 °C	6 kV / 60 s	5.7	15.5	> 50	0.081 ±10 %	Multi-Purpose

### Temperature Coefficient

TCR = 3850 ppm/K

### Measuring Current

Pt100  $\Omega$ : 0.3 to 1.0 mA

Pt1000  $\Omega$ : 0.1 to 0.3 mA

(self-heating has to be considered)

### Self-Heating (Sensor Element)

0.4 K/mW at 0 °C

### Customization Options

- All outer dimensions
- Conductor size and material
- Sensor resistance
- Connectors
- Certifications (e.g. IMDS, PPAP, IP rating)

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Sensor Academy!



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