

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

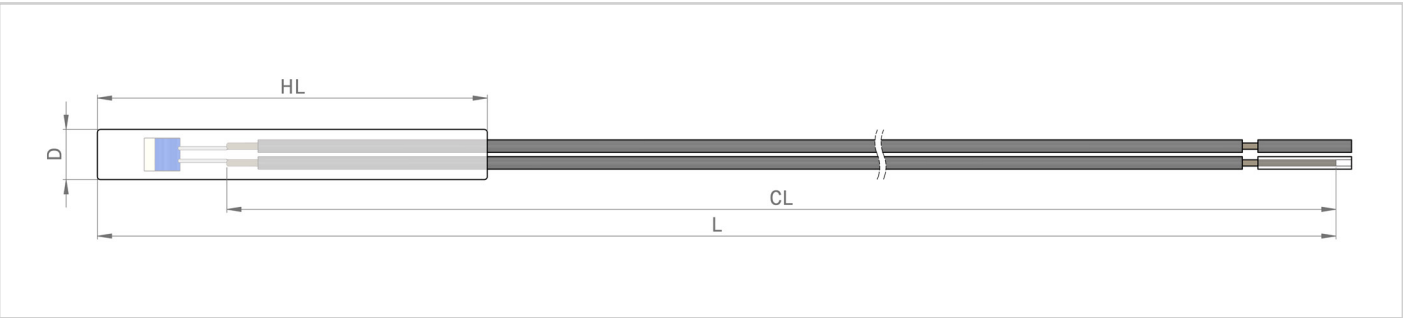


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Dimensions and Materials

No.	Product Type	Element Nominal Resistance R_0 [Ω]	Dimensions and Tolerances (mm)				Conductor			Order Number
			HL	D	CL	L	Core (AWG)	Insulation	Color	
1	EC3032-C	Pt100 / F 0.3	30 ±5	3.2 +0.2 -0.4	400 ±10	408 ±10	24/19 NPC	PTFE	Red	5180937
2	EC3032-C	Pt1000 / F 0.3	30 ±5	3.2 +0.2 -0.4	397 ±10	405 ±10	24/19 NPC	PTFE	Red	5016951
3	EC3032-C	Pt100 / F 0.3	30 ±5	3.2 +0.2 -0.4	400 ±10	408 ±10	24/19 NPC	PTFE	White	5185070
4	EC3032-C	Pt1000 / F 0.3	30 ±5	3.2 +0.2 -0.4	400 ±10	408 ±10	24/19 NPC	PTFE	White	5185071
5	EC3032-C Automotive	Pt1000 / F 0.3	30 ±5	3.2 +0.2 -0.4	400 ±10	408 ±10	24/19 NPC	PTFE	Red	5161009
6	EC1732-C	Pt1000 / F 0.3	17 +3 -2	3.2 +0.2 -0.4	1550 ±25	1558 ±25	24/19 NPC	PTFE	White	5184744
7	EC3045-C	Pt1000 / F 0.3	30 ±5	max. 4.5	400 ±10	408 ±10	24/19 NPC UL 1659	PTFE	Black	5192571
8	EC3021-C	Pt1000 / F 0.3	30 ±5	2.1 +0.1 -0.4	250 ±10	258 ±10	30/07 NPC	PTFE	Blue	5185633
9	EC3021-C	Pt100 / F 0.3	30 ±5	2.1 +0.1 -0.4	250 ±10	258 ±10	30/07 NPC	PTFE	Blue	5185634
10	EC3021-C Automotive	Pt1000 / F 0.3	30 ±5	2.1 +0.1 -0.4	250 ±10	259 ±10	30/07 NPC	PTFE	Blau	5196848

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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 [Ω/m]	Application
			T0.5 [s]	T0.9 [s]			
1	-50 °C bis +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 $\pm$ 10 %	Multi-Purpose
2	-50 °C bis +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 $\pm$ 10 %	Multi-Purpose
3	-50 °C bis +260 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 $\pm$ 10 %	Multi-Purpose
4	-50 °C bis +260 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 $\pm$ 10 %	Multi-Purpose
5	-50 °C bis +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 $\pm$ 10 %	Automotive
6	-50 °C bis +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 $\pm$ 10 %	Multi-Purpose
7	-50 °C bis +200 °C	6 kV / 60 s	3.1	8.1	> 50	0.081 $\pm$ 10 %	Multi-Purpose
8	-50 °C bis +260 °C	3 kV / 60 s	1.8	4.8	> 25	0.32 $\pm$ 10 %	Multi-Purpose
9	-50 °C bis +260 °C	3 kV / 60 s	1.8	4.8	> 25	0.32 $\pm$ 10 %	Multi-Purpose
10	-50 °C bis +260 °C	3 kV / 60 s	1.8	4.8	> 25	0.32 $\pm$ 10 %	Multi-Purpose

Temperature Coefficient

TCR = 3850 ppm/K

Measuring Current

Pt100 Ω : 0.3 to 1.0 mA

Pt1000 Ω : 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)

IP69H
compliant

RoHS
compliant

Need more information?
Check out our
Sensor Academy!



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