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

Image for illustration purposes only

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 Automotive	Pt1000 / F 0.3	30 ±5	3.2 +0.2 -0.4	400 ±10	408 ±10	24/19 NPC	PTFE	Red	5161009
4	EC3021-C	Pt1000 / F 0.3	30 ±5	2.1 +0.1 -0.4	250 ±10	258 ±10	30/07 NPC	PTFE	Blue	5185633
5	EC3021-C	Pt100 / F 0.3	30 ±5	2.1 +0.1 -0.4	250 ±10	258 ±10	30/07 NPC	PTFE	Blue	5185634
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	4.5 Max.	400 ±10	408 ±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 m/s)		Pull Force [N]	Conductor Resistance [Ω/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 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)

Need more information? Check out our Sensor Academy!

IP69H compliant

RoHS compliant

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