

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

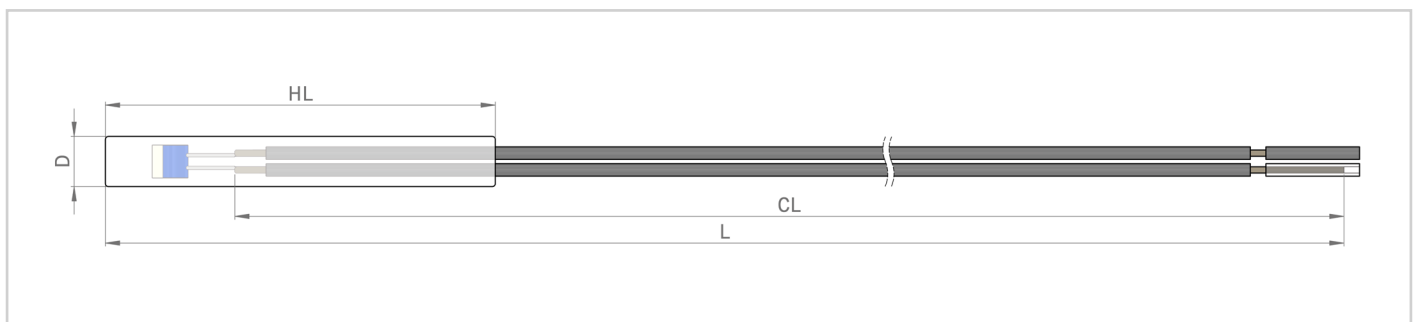


Image for illustration purposes only

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	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	Red	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	Blue	5196848

EC-Series - Polymer Encapsulated Pt Temperature Sensor

Temperature range -50 °C to +260 °C

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 %	Automotive

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

The information provided in this data sheet describes certain technical characteristics of the product, but shall not be qualified or construed as quality guarantee (Beschaffenheitsgarantie) in the meaning of sections 443 and 444 German Civil Code. The information provided in this data sheet regarding measurement values (including, but not limited to, response time, long-term stability, vibration and shock resistance, insulation resistance and self-heating) are average values that have been obtained under laboratory conditions in tests of large numbers of the product. Product results or measurements achieved by customer or any other person in any production, test, or other environment may vary depending on the specific conditions of use. YAGEO Nexensos does not recommend the use of standard catalogue products or automotive grades for aerospace applications or manned space flight. The customer is solely responsible to determine whether the product is suited for the customer's intended use; in this respect YAGEO Nexensos cannot assume any liability. The sale of any products by YAGEO Nexensos is exclusively subject to the General Terms of Sale and Delivery of YAGEO Nexensos in their current version at the time of purchase, which is available under www.yageogroup.com/SalesResources/ResourceLibrary or may be furnished upon request. This data sheet is subject to changes without prior notice.

YAGEO Nexensos GmbH, Reinhard-Heraeus-Ring 23, 63801 Kleinostheim, Germany

YAGEO Nexensos GmbH, Germany

Web: www.yageogroup.com

Contact: nexensos.america@yageo.com

Document: 20003792241 Part 001 Version 07 | Status: 07/2026

Page 2 of 2