

Automotive Sensors Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Autonomous Driving, ADAS & Safety (Automotive & Transportation)

> **Source:** <https://www.mordorintelligence.com/industry-reports/automotive-sensors-market>

> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
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Base Market Size	USD 28.83 billion
Projected Forecast (2031)	USD 28.83 billion
Growth Rate (CAGR)	6.05 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

![Major players in Automotive Sensors industry](images/chart_2.png)

![Automotive Sensors Market Size](images/chart_3.png)

![Automotive Sensors Market Share by Type, 2025](images/chart_4.png)

![Automotive Sensors Market Share by Propulsion Technology, 2025](images/chart_5.png)

![Automotive Sensors Market Growth Rate by Region](images/chart_6.png)

![Automotive Sensors Market Concentration](images/chart_7.png)

![Icon](images/chart_8.png)

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2019 - 2031 |

Market Size (2026) | USD 28.83 Billion |

Market Size (2031) | USD 38.67 Billion |

Growth Rate (2026 - 2031) | 6.05 % |

Fastest Growing Market | Asia Pacific |

Largest Market | Asia Pacific |

Market Concentration | Medium |

Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Automotive Sensors Market Analysis by Mordor Intelligence The automotive sensor market size was valued at USD 27.34 billion in 2025 and estimated to grow from USD 28.83 billion in 2026 to reach USD 38.67 billion by 2031, at a CAGR of 6.05% during the forecast period (2026-2031). Solid growth reflects the rising sensor content per vehicle, as Euro 7 on-board monitoring and the United States' automatic-emergency-braking rules make redundant detection arrays mainstream, even in entry-level trims. Inertial measurement units (IMUs) remain pivotal because electronic stability control and Level 2+ ADAS now ship standard on 60% of North American light vehicles, while real-time battery-temperature sensing is scaling with fast-charging 800-volt platforms. Falling Micro-Electro-Mechanical Systems (MEMS) average selling prices (ASPs) accelerate adoption in sub-USD 15,000 cars sold across India and Southeast Asia, helping the automotive sensor market penetrate cost-sensitive tiers. Meanwhile, usage-based insurance programs that utilize accelerometers and GPS are increasing telematics volume and generating recurring data service revenues for fleet operators.

Key Report Takeaways* By type, inertial sensors led the automotive sensors market, accounting for 28.13% of the share in 2025, and are projected to grow at a 6.47% CAGR through 2031.

* By application, the powertrain segment held 40.55% of the automotive sensors market size in 2025, while telematics recorded the fastest growth rate of 8.86% through 2031.

* By vehicle type, passenger cars accounted for 71.18% of the revenue share in 2025; commercial vehicles are expected to expand at a 7.15% CAGR through 2031.

* By propulsion technology, internal combustion engine vehicles held 58.40% of the automotive sensors market size in 2025; fuel-cell electric cars are projected to grow at a 24.50% CAGR to 2031.

* By sales channel, OEM-fitted sensors dominated with an 88.20% share in 2025; the aftermarket segment is expected to advance at a 12.40% CAGR through 2031.

* By geography, the Asia-Pacific region captured a 42.30% revenue share in 2025 and is projected to advance at a 9.10% CAGR through 2031.

Key Market Trends

Market Trends and Insights Drivers Impact Analysis of Automotive Sensors Market* Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

ADAS and Autonomous-Driving Sensors | +1.8% | Global, led by North America and Europe | Medium term (2-4 years) |

EV Thermal-Battery Sensing Boom | +1.5% | Asia-Pacific core, expanding to North America | Medium term (2-4 years) |

Emission and Safety Mandates for Pressure/Gas Sensors | +1.2% | Global, strongest in Europe and China | Short term (≤ 2 years) |

Falling MEMS ASP Driving Adoption | +0.9% | Global, cost-sensitive markets first | Long term (≥ 4 years) |

OTA-Ready Self-Diagnostic Sensors | +0.6% | Premium markets, gradual mainstream | Long term (≥ 4 years) |

Usage-Based Insurance Telematics Demand | +0.4% | North America and Europe primarily | Medium term (2-4 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

In the automotive sensor market, Bosch, DENSO, and Continental command a significant share of market revenues. Their positions span multiple stages, from wafer fabrication to module validation. Reflecting the industry's capital intensity, Bosch is investing in a new fabrication plant. As the industry pivots toward software-defined vehicles, Tier-1 suppliers are co-developing sensor platforms with OEMs and protecting aftermarket positions through calibration services and extended warranties.

In this evolving landscape, niche opportunities are attracting specialists. Allegro MicroSystems and Melexis supply application-specific current and magnetic-position ICs for advanced vehicle systems, and faster design cycles can provide an advantage over broader-line suppliers. Solid-state lidar companies such as Luminar and Aeva are also pursuing more direct OEM engagement, which can simplify supply chains and alter profit distribution. Patent filings in sensor fusion are increasing, with emphasis on software that differentiates performance as hardware becomes more standardized.

With updated standards, cybersecurity is becoming more important in sensor nodes. While this increases compliance costs, it can strengthen the position of suppliers with embedded security intellectual property. OEMs are also increasingly procuring semiconductors directly from vendors such as Infineon and STMicroelectronics, integrating components in-house and increasing pressure on traditional module suppliers. For smaller entrants, rigorous validation requirements and long design-win cycles continue to favor companies with strong balance sheets and global support capabilities.

Automotive Sensors Industry Leaders* Continental AG

- * NXP Semiconductors NV
- * Robert Bosch GmbH
- * Infineon Technologies AG
- * DENSO Corporation

* *Disclaimer: Major Players sorted in no particular order
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Scope Methodology P Space

This market captures revenue from sensors designed and qualified for use in passenger and commercial vehicles, where they measure or detect conditions and feed signals to vehicle control, powertrain, emissions, comfort, and safety systems.

Scope exclusions: We exclude stand-alone consumer gadgets and workshop-only test-bench sensors that are not installed on vehicles and are not used for on-road operation.

Segmentation Container

- * By Type* Temperature Sensors
- * Pressure Sensors
- * Speed Sensors
- * Level / Position Sensors
- * Magnetic Sensors
- * Gas Sensors
- * Inertial Sensors
- * By Application* Powertrain
- * Body Electronics
- * Vehicle Security Systems

- * Telematics
- * By Vehicle Type* Passenger Cars
- * Commercial Vehicles
- * By Propulsion Technology* Internal Combustion Engine (ICE) Vehicles
- * Battery-Electric Vehicles (BEV)
- * Plug-in Hybrid Vehicles (PHEV)
- * Fuel-cell Electric Vehicles (FCEV)
- * By Sales Channel* OEM-fitted Sensors
- * Aftermarket
- * By Geography* North America* United States
- * Canada
- * Rest of North America
- * South America* Brazil
- * Argentina
- * Rest of South America
- * Europe* Germany
- * United Kingdom
- * France
- * Russia
- * Rest of Europe
- * Asia-Pacific* China
- * Japan
- * India
- * South Korea
- * Rest of Asia-Pacific
- * Middle East and Africa* Turkey
- * Gulf Cooperation Council (GCC)
- * South Africa
- * Rest of Middle East and Africa

Frequently Asked Questions

What is the current value of the automotive sensor market?

The automotive sensor market size was USD 28.83 billion in 2026 and is forecast to reach USD 38.67 billion by 2031.

Which sensor type holds the largest share?

Inertial devices such as accelerometers and gyroscopes led with 28.13% share in 2025 and are advancing at a 6.47% CAGR.

Which region is expanding the fastest?

Asia-Pacific is growing at 9.10% CAGR through 2031, driven by China's electric-vehicle production surge and India's localization push.

How will fuel-cell vehicles affect sensor demand?

Fuel-cell electric vehicles are set for a 24.50% CAGR to 2031, adding hydrogen-specific leak and pressure sensors that raise content per vehicle.

Why is the aftermarket growing quicker than OEM fitment?

Collision-repair ADAS calibration and predictable TPMS battery replacements are boosting aftermarket revenues at a 12.40% CAGR.