Position Sensor Market by Type (Linear, Rotary, Proximity, Photoelectric, ToF, Stereo Vision, Structured Light), Signal (Digital, Analog), Technology (Capacitive, Inductive, Optical, Magnetic, Ultrasonic) - Global Forecast to 2030

Market Report | 2025-01-28 | 296 pages | MarketsandMarkets

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Report description:

The global position sensor market is estimated to reach USD 19.02 billion in 2030 from USD 13.25 billion in 2025, at a CAGR of 7.5% during the forecast period. Position sensors are experiencing increased demand as they are fundamental to industries that need to monitor and control motion, such as automobiles, electronics, aircrafts, and medical. Development of automation technology in the manufacturing sector in the production process, enhanced usage of electric vehicles and autonomous vehicles, and growth of industrial automation and robotics are contributing to positive market growth. This trend towards deploying energy-efficient systems further increases the demand for compact high-performance position sensors. Further, improvements in the accuracy, reliability, and integration capability of sensors are driving the adoption.

"Wired segment is expected to hold the largest market share during the forecast period."

The wired segment has the broadest market share in the position sensor market due to its relatively high reliability and voltage isolation to provide uninterrupted signal transmission in a number of applications. Applications such as the manufacturing sector, healthcare, aerospace, robotics, and CNC machines require wired sensors as they provide constant, reliable data in these conditions. This makes them very suitable for use in applications where the availability of useful information is of utmost importance.

"Robotics segment is expected to grow at highest CAGR in position sensor market."

The robotics segment is expected to grow at the highest CAGR in the position sensor market due to the increasing demand for automation and cobots. With these sensors, the complicated movements of robots can be controlled with precision and safety during operations such as assembly, welding, and material handling. This is driven by the application of robots in mass production, customization using industrial robots, and the application of ASRS. Encoders, potentiometers, and resolvers are basic types of position sensors serving to sense and control robotic positions. Thus, robotics segments are expected to grow at the

highest CAGR during the forecast period.

"China in the Asia Pacific region is projected to dominate the position sensor market."
China holds the leading position in position sensors across the Asia Pacific region due to the favorable position of the country as the manufacturing hub of the world and basically influencing industrial automation. Initiatives such as Made in China 2025 generate the need for position sensors in industrial robotic handling, assembly automation and quality control applications. Furthermore, Chinese authority in automotive manufacture propagates the implementation of position sensors in manufacturing lines. Its market position is backed by companies that include Dongfeng Motors, Lenovo and AVIC. Thus, the position sensor market in China is leading the market growth in the Asia Pacific region.

-□By Company Type: Tier 1 - 25%, Tier 2 - 40%, and Tier 3 - 35%
-□By Designation: C-level Executives - 30%, Directors - 28%, and Others - 42%
-□By Region: North America- 43%, Europe - 15%, Asia Pacific- 37% and RoW- 05%

Honeywell International Inc. (US), TDK Corporation (Japan), STMicroelectronics (Switzerland), Amphenol Corporation (US), SICK AG (Germany), Sensata Technologies, Inc. (US), TE Connectivity (Ireland), Texas Instruments Incorporated (US), ams-OSRAM AG (Austria), Analog Devices, Inc. (US), CTS Corporation (US), Infineon Technologies AG (Germany), Microchip Technology Inc. (US), Vishay Intertechnology, Inc. (US), Novotechnik U.S. Inc. (US)., are some of the key players in the position sensor market.

The study includes an in-depth competitive analysis of these key players in the position sensor market, with their company profiles, recent developments, and key market strategies.

Research Coverage

This research report categorizes the position sensor market by Type (Linear, Rotary, Proximity Sensors, Photoelectric Sensors, 3D Sensors), Contact Type (Non-Contact Type, Contact Type), Signal Output (Digital, Analog), Technology (Capacitive, Inductive, Optical, Magnetic, Ultrasonic, Piezoelectric), Connectivity (Wired, Wireless), Application (Machine Tools, Robotics, Motion Systems, Material Handling, Test Equipment, Other Applications), End-User Industry (Manufacturing, Automotive, Aerospace & Defense, Packaging, Healthcare, Consumer Electronics, Other End-user Industries), and by region (North America, Europe, Asia Pacific, and RoW). The report's scope covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the position sensor market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; contracts, partnerships, agreements; new product launches; mergers and acquisitions; and recent developments associated with the position sensor market. This report covers the competitive analysis of upcoming startups in the position sensor market ecosystem.

Reasons to buy this report

The report will help market leaders and new entrants with information on the closest approximations of the revenue numbers for the overall position sensor market and its subsegments. It will also help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:
-□Analysis of key drivers (increasing adoption of industry 4.0 technologies, rising adoption of position sensors in automotive industry, and rising adoption of position sensors in aerospace, and defense sectors), restraints (high cost ownership), opportunities (integration of position sensors into IoT devices, increasing advancements in robotics and automation), and

challenges (limitations in performance and precision of position sensors) influencing the growth of the position sensor market
-Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the position sensor market
-Market Development: Comprehensive information about lucrative markets - the report analyses the position sensor market across varied regions.
-Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the position sensor market
-Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like Honeywell International Inc. (US), TDK Corporation (Japan), STMicroelectronics (Switzerland), Amphenol Corporation (US), SICK AG (Germany), Sensata Technologies, Inc. (US), TE Connectivity (Ireland), Texas Instruments Incorporated (US), ams-OSRAM AG (Austria), Analog Devices, Inc. (US), CTS Corporation (US), Infineon Technologies AG (Germany), Microchip Technology Inc. (US), Vishay Intertechnology, Inc. (US), and Novotechnik U.S. Inc. (US)., among others in the position sensor market.

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