

# Wireless Sensors Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027

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## Abstracts

The global wireless sensors market reached a value of US\$ 8.4 Billion in 2021. Looking forward, IMARC Group expects the market to reach US\$ 24.2 Billion by 2027, exhibiting a CAGR of 19.4% during 2022-2027. Keeping in mind the uncertainties of COVID-19, we are continuously tracking and evaluating the direct as well as the indirect influence of the pandemic on different end use industries. These insights are included in the report as a major market contributor.

Wireless sensors are standard measurement tools that are equipped with transmitters that can convert signals from process control instruments into a radio transmission. Originally conceptualized for military use, these networks now have wide ranging applications in civilian, industrial, and consumer markets. These extend from preventing trespassing to monitoring building strength and evaluating water quality to measuring individual heart rate.

Wireless sensors are also used in areas that are difficult to access due to severe environment conditions such as high temperature, pH, pressure, etc. With the help of wireless sensors, operators can constantly supervise processes in extreme environments and report the information back to an operator in a monitoring facility that may be located at a safe distance away. They are also convenient for acquiring data in difficult to access locations. The radio signal is interpreted by a receiver that further converts the wireless signal into a particular, required output, such as an analog current or data analysis via computer software.

Over the past few years, various new technological advancements have been made on account of which there has been a significant improvement in the overall performance of

wireless sensors. This has given a rise to the use of these sensors across numerous end-use industries such as food and beverage, automation, and defence. Wireless sensors are also utilised for various purposes like forest fire detection, water management and flood detection. They are also beneficial for monitoring greenhouse gas emission as well as pest and disease detection. Furthermore, wireless sensors generate a significant quantity of data that can yield actionable insights, catalysing continuous process improvement.

Implementation at scale, nevertheless, is not without its roadblocks. The development of cost effective, ubiquitous sensor networks primary depends upon the speed and quality of technological advancement, alternate methods of power supply, and the advancement of technical regulations and standards.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global wireless sensors market, along with forecasts at the global and regional level from 2022-2027. Our report has categorized the market based on product type, technology and end-use.

#### Breakup by Product Type:

- Temperature Sensors
- Pressure Sensors
- Level Sensors
- Flow Sensors
- Humidity Sensors
- Biosensors
- Gas Sensors
- Surveillance and Security Sensors
- Motion and Positioning Sensors
- Others

Based on the product type, the market has been segmented into temperature sensors, pressure sensors, level sensors, flow sensors, humidity sensors, biosensors, gas sensors, surveillance and security sensors, motion and positioning sensors, and other segments.

#### Breakup by Technology:

Bluetooth  
Wi-Fi and WLAN  
Zigbee  
WirelessHART  
RFID  
EnOcean  
Others

Based on the technology, the market has been segmented into Bluetooth, Wi-Fi and WLAN, Zigbee, WirelessHART, RFID, EnOcean and others.

Breakup by End-Use:

Industrial  
Medical  
Energy  
Defense  
Agriculture  
Office and Residential  
Others

On the basis of end-use, the industrial segment represents the largest segment. Other major segments include medical, energy, defense, agriculture, office and residential, and others.

Breakup by Region:

North America  
Asia Pacific  
Europe  
Middle East and Africa  
Latin America

Region-wise, the market has been segmented into North America, Asia Pacific, Europe, Middle East and Africa, and Latin America.

Competitive Landscape:

The competitive landscape of the market has also been examined with some of the key players being ABB Ltd, STMicroelectronics, Texas Instruments Incorporated, Freescale

Semiconductors Inc, Rockwell Automation Inc., Emerson Electric Co, Honeywell International Inc., Schneider Electric SA, Endress+Hauser SA, Yokogawa Electric Corporation, Siemens AG and General Electric.

This report provides a deep insight into the global wireless sensors market covering all its essential aspects. This ranges from macro overview of the market to micro details of the industry performance, recent trends, key market drivers and challenges, SWOT analysis, Porter's five forces analysis, value chain analysis, etc. This report is a must-read for entrepreneurs, investors, researchers, consultants, business strategists, and all those who have any kind of stake or are planning to foray into the wireless sensors industry in any manner.

**Key Questions Answered in This Report:**

How has the global wireless sensors market performed so far and how will it perform in the coming years?

What are the key regional markets in the global wireless sensors market?

What has been the impact of COVID-19 on the global wireless sensors market?

What are the key product types in the market?

What are the key technologies in the market?

What are the key end-use segments in the market?

What are the various stages in the value chain of the global wireless sensors industry?

What are the key driving factors and challenges in the global wireless sensors industry?

What is the structure of the global wireless sensors industry and who are the key players?

What is the degree of competition in the global wireless sensors industry?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL WIRELESS SENSORS MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Breakup by Product Type
- 5.5 Market Breakup by Technology
- 5.6 Market Breakup by End-Use
- 5.7 Market Breakup by Region
- 5.8 Market Forecast
- 5.9 SWOT Analysis
  - 5.9.1 Overview
  - 5.9.2 Strengths
  - 5.9.3 Weaknesses
  - 5.9.4 Opportunities
  - 5.9.5 Threats

## 5.10 Value Chain Analysis

- 5.10.1 Overview
- 5.10.2 Research and Development
- 5.10.3 Raw Material Procurement
- 5.10.4 Manufacturing
- 5.10.5 Marketing
- 5.10.6 Distribution
- 5.10.7 End-Use

## 5.11 Porters Five Forces Analysis

- 5.11.1 Overview
- 5.11.2 Bargaining Power of Buyers
- 5.11.3 Bargaining Power of Suppliers
- 5.11.4 Degree of Competition
- 5.11.5 Threat of New Entrants
- 5.11.6 Threat of Substitutes

## 5.12 Price Analysis

- 5.12.1 Key Price Indicators
- 5.12.2 Price Structure

# 6 MARKET BREAKUP BY PRODUCT TYPE

## 6.1 Temperature Sensors

- 6.1.1 Market Trends
- 6.1.2 Market Forecast

## 6.2 Pressure Sensors

- 6.2.1 Market Trends
- 6.2.2 Market Forecast

## 6.3 Level Sensors

- 6.3.1 Market Trends
- 6.3.2 Market Forecast

## 6.4 Flow Sensors

- 6.4.1 Market Trends
- 6.4.2 Market Forecast

## 6.5 Humidity Sensors

- 6.5.1 Market Trends
- 6.5.2 Market Forecast

## 6.6 Biosensors

- 6.6.1 Market Trends
- 6.6.2 Market Forecast

## 6.7 Gas Sensors

6.7.1 Market Trends

6.7.2 Market Forecast

## 6.8 Surveillance and Security Sensors

6.8.1 Market Trends

6.8.2 Market Forecast

## 6.9 Motion and Positioning Sensors

6.9.1 Market Trends

6.9.2 Market Forecast

## 6.10 Others

6.10.1 Market Trends

6.10.2 Market Forecast

## **7 MARKET BREAKUP BY TECHNOLOGY**

### 7.1 Bluetooth

7.1.1 Market Trends

7.1.2 Market Forecast

### 7.2 Wi-Fi and WLAN

7.2.1 Market Trends

7.2.2 Market Forecast

### 7.3 Zigbee

7.3.1 Market Trends

7.3.2 Market Forecast

### 7.4 WirelessHART

7.4.1 Market Trends

7.4.2 Market Forecast

### 7.5 RFID

7.5.1 Market Trends

7.5.2 Market Forecast

### 7.6 EnOcean

7.6.1 Market Trends

7.6.2 Market Forecast

### 7.7 Others

7.7.1 Market Trends

7.7.2 Market Forecast

## **8 MARKET BREAKUP BY END-USE**

- 8.1 Industrial
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Medical
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast
- 8.3 Energy
  - 8.3.1 Market Trends
  - 8.3.2 Market Forecast
- 8.4 Defense
  - 8.4.1 Market Trends
  - 8.4.2 Market Forecast
- 8.5 Agriculture
  - 8.5.1 Market Trends
  - 8.5.2 Market Forecast
- 8.6 Office and Residential
  - 8.6.1 Market Trends
  - 8.6.2 Market Forecast
- 8.7 Others
  - 8.7.1 Market Trends
  - 8.7.2 Market Forecast

## **9 MARKET BREAKUP BY REGION**

- 9.1 North America
  - 9.1.1 Market Trends
  - 9.1.2 Market Forecast
- 9.2 Asia Pacific
  - 9.2.1 Market Trends
  - 9.2.2 Market Forecast
- 9.3 Europe
  - 9.3.1 Market Trends
  - 9.3.2 Market Forecast
- 9.4 Middle East and Africa
  - 9.4.1 Market Trends
  - 9.4.2 Market Forecast
- 9.5 Latin America
  - 9.5.1 Market Trends
  - 9.5.2 Market Forecast



## **10 MANUFACTURING PROCESS**

- 10.1 Product Overview
- 10.2 Raw Material Requirements
- 10.3 Manufacturing Process
- 10.4 Key Success and Risk Factors

## **11 COMPETITIVE LANDSCAPE**

- 11.1 Market Structure
- 11.2 Key Players
- 11.3 Profiles of Key Players
  - 11.3.1 ABB Ltd
  - 11.3.2 STMicroelectronics
  - 11.3.3 Texas Instruments Incorporated
  - 11.3.4 Freescale Semiconductors Inc
  - 11.3.5 Rockwell Automation Inc.
  - 11.3.6 Emerson Electric Co
  - 11.3.7 Honeywell International Inc.,
  - 11.3.8 Schneider Electric SA
  - 11.3.9 Endress+Hauser SA
  - 11.3.10 Yokogawa Electric Corporation
  - 11.3.11 Siemens AG
  - 11.3.12 General Electric

## List Of Tables

### LIST OF TABLES

Table 1: Global: Wireless Sensors Market: Key Industry Highlights, 2021 and 2027

Table 2: Global: Wireless Sensors Market Forecast: Breakup by Product Type (in Million US\$), 2022-2027

Table 3: Global: Wireless Sensors Market Forecast: Breakup by Technology (in Million US\$), 2022-2027

Table 4: Global: Wireless Sensors Market Forecast: Breakup by End-Use (in Million US\$), 2022-2027

Table 5: Global: Wireless Sensors Market Forecast: Breakup by Region (in Million US\$), 2022-2027

Table 6: Wireless Sensors Manufacturing: Raw Material Requirements

Table 7: Global: Wireless Sensors Market: Competitive Structure

Table 8: Global: Wireless Sensors Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Wireless Sensors Market: Major Drivers and Challenges

Figure 2: Global: Wireless Sensors Market: Sales Value (in Billion US\$), 2016-2021

Figure 3: Global: Wireless Sensors Market: Breakup by Product Type (in %), 2021

Figure 4: Global: Wireless Sensors Market: Breakup by Technology (in %), 2021

Figure 5: Global: Wireless Sensors Market: Breakup by End-Use (in %), 2021

Figure 6: Global: Wireless Sensors Market: Breakup by Region (in %), 2021

Figure 7: Global: Wireless Sensors Market Forecast: Sales Value (in Billion US\$), 2022-2027

Figure 8: Global: Wireless Sensors Industry: SWOT Analysis

Figure 9: Global: Wireless Sensors Industry: Value Chain Analysis

Figure 10: Global: Wireless Sensors Industry: Porter's Five Forces Analysis

Figure 11: Global: Wireless Sensors (Temperature) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 12: Global: Wireless Sensors (Temperature) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 13: Global: Wireless Sensors (Pressure) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 14: Global: Wireless Sensors (Pressure) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 15: Global: Wireless Sensors (Level) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 16: Global: Wireless Sensors (Level) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 17: Global: Wireless Sensors (Flow) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 18: Global: Wireless Sensors (Flow) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 19: Global: Wireless Sensors (Humidity) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 20: Global: Wireless Sensors (Humidity) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 21: Global: Wireless Sensors (Biosensors) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 22: Global: Wireless Sensors (Biosensors) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 23: Global: Wireless Sensors (Gas) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 24: Global: Wireless Sensors (Gas) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 25: Global: Wireless Sensors (Surveillance and Security) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 26: Global: Wireless Sensors (Surveillance and Security) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 27: Global: Wireless Sensors (Motion and Positioning) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 28: Global: Wireless Sensors (Motion and Positioning) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 29: Global: Wireless Sensors (Other Product Types) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 30: Global: Wireless Sensors (Other Product Types) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 31: Global: Wireless Sensors (Bluetooth) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 32: Global: Wireless Sensors (Bluetooth) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 33: Global: Wireless Sensors (Wi-Fi and WLAN) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 34: Global: Wireless Sensors (Wi-Fi and WLAN) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 35: Global: Wireless Sensors (Zigbee) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 36: Global: Wireless Sensors (Zigbee) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 37: Global: Wireless Sensors (WirelessHART) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 38: Global: Wireless Sensors (WirelessHART) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 39: Global: Wireless Sensors (RFID) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 40: Global: Wireless Sensors (RFID) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 41: Global: Wireless Sensors (EnOcean) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 42: Global: Wireless Sensors (EnOcean) Market Forecast: Sales Value (in

Million US\$), 2022-2027

Figure 43: Global: Wireless Sensors (Other Technologies) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 44: Global: Wireless Sensors (Other Technologies) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 45: Global: Wireless Sensors (Industrial) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 46: Global: Wireless Sensors (Industrial) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 47: Global: Wireless Sensors (Medical) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 48: Global: Wireless Sensors (Medical) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 49: Global: Wireless Sensors (Energy) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 50: Global: Wireless Sensors (Energy) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 51: Global: Wireless Sensors (Defense) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 52: Global: Wireless Sensors (Defense) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 53: Global: Wireless Sensors (Agriculture) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 54: Global: Wireless Sensors (Agriculture) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 55: Global: Wireless Sensors (Office and Residential) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 56: Global: Wireless Sensors (Office and Residential) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 57: Global: Wireless Sensors (Other End-Uses) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 58: Global: Wireless Sensors (Other End-Uses) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 59: North America: Wireless Sensors Market: Sales Value (in Million US\$), 2016 & 2021

Figure 60: North America: Wireless Sensors Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 61: Asia Pacific: Wireless Sensors Market: Sales Value (in Million US\$), 2016 & 2021

Figure 62: Asia Pacific: Wireless Sensors Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 63: Europe: Wireless Sensors Market: Sales Value (in Million US\$), 2016 & 2021

Figure 64: Europe: Wireless Sensors Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 65: Middle East and Africa: Wireless Sensors Market: Sales Value (in Million US\$), 2016 & 2021

Figure 66: Middle East and Africa: Wireless Sensors Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 67: Latin America: Wireless Sensors Market: Sales Value (in Million US\$), 2016 & 2021

Figure 68: Latin America: Wireless Sensors Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 69: Wireless Sensors Manufacturing: Detailed Process Flow

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