

Global Grid Sensors Market Research Report 2024(Status and Outlook)

<https://marketpublishers.com/r/G2B7BC2B5880EN.html>

Date: December 2024

Pages: 139

Price: US\$ 2,800.00 (Single User License)

ID: G2B7BC2B5880EN

Abstracts

Report Overview

Grid sensors are devices used to monitor and manage the electrical grid by providing real-time data on electricity flow, voltage levels, and other critical parameters. These sensors play a crucial role in ensuring grid stability, efficiency, and reliability. The market for grid sensors is positioned at the intersection of the energy and technology sectors, catering to utilities, energy companies, and grid operators.

As of 2023, the global market size for grid sensors is estimated at approximately USD 400 million. The market is expected to grow at a Compound Annual Growth Rate (CAGR) of 8.50% from 2024 to 2032. This growth can be attributed to several key factors driving the market forward.

One of the primary growth drivers for grid sensors is the increasing integration of renewable energy sources into the grid. As the world shifts towards a more sustainable energy mix, grid sensors play a vital role in managing the variability and intermittency of renewable sources such as solar and wind power. This trend is pushing grid operators to invest in advanced sensor technologies to optimize grid performance.

Another significant driver is the growing focus on grid modernization and smart grid initiatives. Governments and utilities worldwide are investing in upgrading aging grid infrastructure to enhance efficiency, reliability, and resilience. Grid sensors enable real-time monitoring, predictive maintenance, and grid automation, thereby supporting the transition towards smarter and more efficient grids.

Moreover, the rise of Internet of Things (IoT) and data analytics is transforming the grid

sensor market. Advanced sensors equipped with IoT capabilities allow for seamless data collection, communication, and analysis, enabling grid operators to make informed decisions in real time. This trend towards digitalization and connectivity is propelling the demand for smart grid solutions, including grid sensors.

In terms of market trends, the increasing adoption of phasor measurement units (PMUs) is noteworthy. PMUs are specialized grid sensors that provide synchronized measurements of voltage and current phasors, offering valuable insights into grid dynamics and stability. Utilities are deploying PMUs to enhance grid visibility, monitor system conditions, and prevent potential disturbances or blackouts.

Furthermore, the emergence of distributed energy resources (DERs) is influencing the grid sensor market dynamics. DERs such as rooftop solar panels and energy storage systems are decentralizing power generation and introducing new complexities to grid management. Grid sensors are essential for effectively integrating and managing DERs, ensuring grid stability and optimal performance.

Regionally, North America and Europe are leading markets for grid sensors due to their early adoption of smart grid technologies and stringent grid reliability standards. These regions prioritize grid modernization initiatives and invest significantly in advanced sensor technologies. In contrast, Asia Pacific is a rapidly growing market driven by increasing energy demand, urbanization, and investments in grid infrastructure.

Despite the promising growth prospects, the grid sensor market faces several challenges. One key challenge is the interoperability of diverse sensor technologies and communication protocols within the grid ecosystem. Standardization efforts and interoperable solutions are essential to ensure seamless integration and compatibility across different grid components and systems.

In conclusion, the market for grid sensors is poised for substantial growth driven by factors such as renewable energy integration, grid modernization, IoT adoption, and the rise of smart grid technologies. As the energy landscape evolves, grid sensors will play a pivotal role in enhancing grid efficiency, resilience, and sustainability. Stakeholders in the energy sector should continue to invest in innovative sensor solutions and collaborative frameworks to address the evolving needs of the grid infrastructure.

This report provides a deep insight into the global Grid Sensors market covering all its essential aspects. This ranges from a macro overview of the market to micro details of the market size, competitive landscape, development trend, niche market, key market

drivers and challenges, SWOT analysis, value chain analysis, etc.

The analysis helps the reader to shape the competition within the industries and strategies for the competitive environment to enhance the potential profit. Furthermore, it provides a simple framework for evaluating and accessing the position of the business organization. The report structure also focuses on the competitive landscape of the Global Grid Sensors Market, this report introduces in detail the market share, market performance, product situation, operation situation, etc. of the main players, which helps the readers in the industry to identify the main competitors and deeply understand the competition pattern of the market.

In a word, this report is a must-read for industry players, investors, researchers, consultants, business strategists, and all those who have any kind of stake or are planning to foray into the Grid Sensors market in any manner.

Global Grid Sensors Market: Market Segmentation Analysis

The research report includes specific segments by region (country), manufacturers, Type, and Application. Market segmentation creates subsets of a market based on product type, end-user or application, Geographic, and other factors. By understanding the market segments, the decision-maker can leverage this targeting in the product, sales, and marketing strategies. Market segments can power your product development cycles by informing how you create product offerings for different segments.

Key Company

Tollgrade

Coope(Eaton)

Sentient

QinetiQ

ABB

GE

Arteche

Landis+Gyr

3M

Market Segmentation (by Type)

General Sensors

Cellular Sensors

Wi-Fi Sensors

Market Segmentation (by Application)

Infrastructure

Demand Response

Data Collection and Control

Geographic Segmentation

North America (USA, Canada, Mexico)

Europe (Germany, UK, France, Russia, Italy, Rest of Europe)

Asia-Pacific (China, Japan, South Korea, India, Southeast Asia, Rest of Asia-Pacific)

South America (Brazil, Argentina, Columbia, Rest of South America)

The Middle East and Africa (Saudi Arabia, UAE, Egypt, Nigeria, South Africa, Rest of MEA)

Key Benefits of This Market Research:

Industry drivers, restraints, and opportunities covered in the study

Neutral perspective on the market performance

Recent industry trends and developments

Competitive landscape & strategies of key players

Potential & niche segments and regions exhibiting promising growth covered

Historical, current, and projected market size, in terms of value

In-depth analysis of the Grid Sensors Market

Overview of the regional outlook of the Grid Sensors Market:

Key Reasons to Buy this Report:

Access to date statistics compiled by our researchers. These provide you with historical and forecast data, which is analyzed to tell you why your market is set to change

This enables you to anticipate market changes to remain ahead of your competitors

You will be able to copy data from the Excel spreadsheet straight into your marketing plans, business presentations, or other strategic documents

The concise analysis, clear graph, and table format will enable you to pinpoint the information you require quickly

Provision of market value (USD Billion) data for each segment and sub-segment

Indicates the region and segment that is expected to witness the fastest growth as well as to dominate the market

Analysis by geography highlighting the consumption of the product/service in the region as well as indicating the factors that are affecting the market within each region

Competitive landscape which incorporates the market ranking of the major players, along with new service/product launches, partnerships, business expansions, and acquisitions in the past five years of companies profiled

Extensive company profiles comprising of company overview, company insights, product benchmarking, and SWOT analysis for the major market players

The current as well as the future market outlook of the industry concerning recent developments which involve growth opportunities and drivers as well as challenges and restraints of both emerging as well as developed regions

Includes in-depth analysis of the market from various perspectives through Porter's five forces analysis

Provides insight into the market through Value Chain

Market dynamics scenario, along with growth opportunities of the market in the years to come

6-month post-sales analyst support

Customization of the Report

In case of any queries or customization requirements, please connect with our sales team, who will ensure that your requirements are met.

Chapter Outline

Chapter 1 mainly introduces the statistical scope of the report, market division standards, and market research methods.

Chapter 2 is an executive summary of different market segments (by region, product type, application, etc), including the market size of each market segment, future development potential, and so on. It offers a high-level view of the current state of the Grid Sensors Market and its likely evolution in the short to mid-term, and long term.

Chapter 3 makes a detailed analysis of the market's competitive landscape of the

market and provides the market share, capacity, output, price, latest development plan, merger, and acquisition information of the main manufacturers in the market.

Chapter 4 is the analysis of the whole market industrial chain, including the upstream and downstream of the industry, as well as Porter's five forces analysis.

Chapter 5 introduces the latest developments of the market, the driving factors and restrictive factors of the market, the challenges and risks faced by manufacturers in the industry, and the analysis of relevant policies in the industry.

Chapter 6 provides the analysis of various market segments according to product types, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different market segments.

Chapter 7 provides the analysis of various market segments according to application, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different downstream markets.

Chapter 8 provides a quantitative analysis of the market size and development potential of each region and its main countries and introduces the market development, future development prospects, market space, and capacity of each country in the world.

Chapter 9 introduces the basic situation of the main companies in the market in detail, including product sales revenue, sales volume, price, gross profit margin, market share, product introduction, recent development, etc.

Chapter 10 provides a quantitative analysis of the market size and development potential of each region in the next five years.

Chapter 11 provides a quantitative analysis of the market size and development potential of each market segment (product type and application) in the next five years.

Chapter 12 is the main points and conclusions of the report.

Contents

1 RESEARCH METHODOLOGY AND STATISTICAL SCOPE

1.1 Market Definition and Statistical Scope of Grid Sensors

1.2 Key Market Segments

1.2.1 Grid Sensors Segment by Type

1.2.2 Grid Sensors Segment by Application

1.3 Methodology & Sources of Information

1.3.1 Research Methodology

1.3.2 Research Process

1.3.3 Market Breakdown and Data Triangulation

1.3.4 Base Year

1.3.5 Report Assumptions & Caveats

2 GRID SENSORS MARKET OVERVIEW

2.1 Global Market Overview

2.1.1 Global Grid Sensors Market Size (M USD) Estimates and Forecasts (2019-2032)

2.1.2 Global Grid Sensors Sales Estimates and Forecasts (2019-2032)

2.2 Market Segment Executive Summary

2.3 Global Market Size by Region

2.4 Macroeconomic Analysis

3 GRID SENSORS MARKET COMPETITIVE LANDSCAPE

3.1 Global Grid Sensors Sales by Manufacturers (2019-2024)

3.2 Global Grid Sensors Revenue Market Share by Manufacturers (2019-2024)

3.3 Grid Sensors Market Share by Company Type (Tier 1, Tier 2, and Tier 3)

3.4 Global Grid Sensors Average Price by Manufacturers (2019-2024)

3.5 Manufacturers Grid Sensors Sales Sites, Area Served, Product Type

3.6 Grid Sensors Market Competitive Situation and Trends

3.6.1 Grid Sensors Market Concentration Rate

3.6.2 Global 5 and 10 Largest Grid Sensors Players Market Share by Revenue

3.6.3 Mergers & Acquisitions, Expansion

4 GRID SENSORS INDUSTRY CHAIN ANALYSIS

4.1 Grid Sensors Industry Chain Analysis

4.2 Market Overview of Key Raw Materials

4.3 Midstream Market Analysis

4.4 Downstream Customer Analysis

5 THE DEVELOPMENT AND DYNAMICS OF GRID SENSORS MARKET

5.1 Key Development Trends

5.2 Driving Factors

5.3 Market Challenges

5.4 Market Restraints

5.5 Industry News

5.5.1 New Product Developments

5.5.2 Mergers & Acquisitions

5.5.3 Expansions

5.5.4 Collaboration/Supply Contracts

5.6 Industry Policies

6 GRID SENSORS MARKET SEGMENTATION BY TYPE

6.1 Evaluation Matrix of Segment Market Development Potential (Type)

6.2 Global Grid Sensors Sales Market Share by Type (2019-2024)

6.3 Global Grid Sensors Market Size Market Share by Type (2019-2024)

6.4 Global Grid Sensors Price by Type (2019-2024)

7 GRID SENSORS MARKET SEGMENTATION BY APPLICATION

7.1 Evaluation Matrix of Segment Market Development Potential (Application)

7.2 Global Grid Sensors Market Sales by Application (2019-2024)

7.3 Global Grid Sensors Market Size (M USD) by Application (2019-2024)

7.4 Global Grid Sensors Sales Growth Rate by Application (2019-2024)

8 GRID SENSORS MARKET SALES BY REGION

8.1 Global Grid Sensors Sales by Region

8.1.1 Global Grid Sensors Sales by Region

8.1.2 Global Grid Sensors Sales Market Share by Region

8.2 Global Grid Sensors Market Size by Region

8.2.1 Global Grid Sensors Market Size by Region

8.2.2 Global Grid Sensors Market Size Market Share by Region

8.3 North America

8.3.1 North America Grid Sensors Sales by Country

8.3.2 North America Grid Sensors Market Size by Country

8.3.3 U.S. Market Overview

8.3.4 Canada Market Overview

8.3.5 Mexico Market Overview

8.4 Europe

8.4.1 Europe Grid Sensors Sales by Country

8.4.2 Europe Grid Sensors Market Size by Country

8.4.3 Germany Market Overview

8.4.4 France Market Overview

8.4.5 U.K. Market Overview

8.4.6 Italy Market Overview

8.4.7 Russia Market Overview

8.5 Asia Pacific

8.5.1 Asia Pacific Grid Sensors Sales by Region

8.5.2 China

8.5.3 Japan

8.5.4 South Korea

8.5.5 India

8.5.6 Southeast Asia

8.6 Asia Pacific

8.6.1 Asia Pacific Grid Sensors Market Size by Region

8.6.2 Asia Pacific Grid Sensors Market Size by Region

8.6.3 China

8.6.4 Japan

8.6.5 South Korea

8.6.6 India

8.6.7 Southeast Asia

8.7 South America

8.7.1 South America Grid Sensors Sales by Country

8.7.2 South America Grid Sensors Market Size by Country

8.7.3 Brazil

8.7.4 Argentina

8.7.5 Columbia

8.8 Middle East and Africa

8.8.1 Middle East and Africa Grid Sensors Sales by Region

8.8.2 Middle East and Africa Grid Sensors Market Size by Region

8.8.3 Saudi Arabia

- 8.8.4 UAE
- 8.8.5 Egypt
- 8.8.6 Nigeria
- 8.8.7 South Africa

9 GRID SENSORS MARKET PRODUCTION BY REGION

- 9.1 Global Production of Grid Sensors by Region (2019-2024)
- 9.2 Global Grid Sensors Revenue Market Share by Region (2019-2024)
- 9.3 Global Grid Sensors Production, Revenue, Price and Gross Margin (2019-2024)
- 9.4 North America Grid Sensors Production
 - 9.4.1 North America Grid Sensors Production Growth Rate (2019-2024)
 - 9.4.2 North America Grid Sensors Production, Revenue, Price and Gross Margin (2019-2024)
- 9.5 Europe Grid Sensors Production
 - 9.5.1 Europe Grid Sensors Production Growth Rate (2019-2024)
 - 9.5.2 Europe Grid Sensors Production, Revenue, Price and Gross Margin (2019-2024)
- 9.6 Japan Grid Sensors Production (2019-2024)
 - 9.6.1 Japan Grid Sensors Production Growth Rate (2019-2024)
 - 9.6.2 Japan Grid Sensors Production, Revenue, Price and Gross Margin (2019-2024)
- 9.7 China Grid Sensors Production (2019-2024)
 - 9.7.1 China Grid Sensors Production Growth Rate (2019-2024)
 - 9.7.2 China Grid Sensors Production, Revenue, Price and Gross Margin (2019-2024)

10 KEY COMPANIES PROFILE

- 10.1 Tollgrade
 - 10.1.1 Tollgrade Grid Sensors Basic Information
 - 10.1.2 Tollgrade Grid Sensors Product Overview
 - 10.1.3 Tollgrade Grid Sensors Product Market Performance
 - 10.1.4 Tollgrade Business Overview
 - 10.1.5 Tollgrade Grid Sensors SWOT Analysis
 - 10.1.6 Tollgrade Recent Developments
- 10.2 Coope(Eaton)
 - 10.2.1 Coope(Eaton) Grid Sensors Basic Information
 - 10.2.2 Coope(Eaton) Grid Sensors Product Overview
 - 10.2.3 Coope(Eaton) Grid Sensors Product Market Performance
 - 10.2.4 Coope(Eaton) Business Overview
 - 10.2.5 Coope(Eaton) Grid Sensors SWOT Analysis

10.2.6 Coope(Eaton) Recent Developments

10.3 Sentient

10.3.1 Sentient Grid Sensors Basic Information

10.3.2 Sentient Grid Sensors Product Overview

10.3.3 Sentient Grid Sensors Product Market Performance

10.3.4 Sentient Grid Sensors SWOT Analysis

10.3.5 Sentient Business Overview

10.3.6 Sentient Recent Developments

10.4 QinetiQ

10.4.1 QinetiQ Grid Sensors Basic Information

10.4.2 QinetiQ Grid Sensors Product Overview

10.4.3 QinetiQ Grid Sensors Product Market Performance

10.4.4 QinetiQ Business Overview

10.4.5 QinetiQ Recent Developments

10.5 ABB

10.5.1 ABB Grid Sensors Basic Information

10.5.2 ABB Grid Sensors Product Overview

10.5.3 ABB Grid Sensors Product Market Performance

10.5.4 ABB Business Overview

10.5.5 ABB Recent Developments

10.6 GE

10.6.1 GE Grid Sensors Basic Information

10.6.2 GE Grid Sensors Product Overview

10.6.3 GE Grid Sensors Product Market Performance

10.6.4 GE Business Overview

10.6.5 GE Recent Developments

10.7 Artech

10.7.1 Artech Grid Sensors Basic Information

10.7.2 Artech Grid Sensors Product Overview

10.7.3 Artech Grid Sensors Product Market Performance

10.7.4 Artech Business Overview

10.7.5 Artech Recent Developments

10.8 Landis+Gyr

10.8.1 Landis+Gyr Grid Sensors Basic Information

10.8.2 Landis+Gyr Grid Sensors Product Overview

10.8.3 Landis+Gyr Grid Sensors Product Market Performance

10.8.4 Landis+Gyr Business Overview

10.8.5 Landis+Gyr Recent Developments

10.9 3M

- 10.9.1 3M Grid Sensors Basic Information
- 10.9.2 3M Grid Sensors Product Overview
- 10.9.3 3M Grid Sensors Product Market Performance
- 10.9.4 3M Business Overview
- 10.9.5 3M Recent Developments

11 GRID SENSORS MARKET FORECAST BY REGION

- 11.1 Global Grid Sensors Market Size Forecast
- 11.2 Global Grid Sensors Market Forecast by Region
 - 11.2.1 North America Market Size Forecast by Country
 - 11.2.2 Europe Grid Sensors Market Size Forecast by Country
 - 11.2.3 Asia Pacific Grid Sensors Market Size Forecast by Region
 - 11.2.4 South America Grid Sensors Market Size Forecast by Country
 - 11.2.5 Middle East and Africa Forecasted Sales of Grid Sensors by Country

12 FORECAST MARKET BY TYPE AND BY APPLICATION (2025-2032)

- 12.1 Global Grid Sensors Market Forecast by Type (2025-2032)
 - 12.1.1 Global Forecasted Sales of Grid Sensors by Type (2025-2032)
 - 12.1.2 Global Grid Sensors Market Size Forecast by Type (2025-2032)
 - 12.1.3 Global Forecasted Price of Grid Sensors by Type (2025-2032)
- 12.2 Global Grid Sensors Market Forecast by Application (2025-2032)
 - 12.2.1 Global Grid Sensors Sales (K Units) Forecast by Application
 - 12.2.2 Global Grid Sensors Market Size (M USD) Forecast by Application (2025-2032)

13 CONCLUSION AND KEY FINDINGS

I would like to order

Product name: Global Grid Sensors Market Research Report 2024(Status and Outlook)

Product link: <https://marketpublishers.com/r/G2B7BC2B5880EN.html>

Price: US\$ 2,800.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G2B7BC2B5880EN.html>