

Europe Mass Flow Controller Market Size and Forecast (2021 - 2031)

<https://marketpublishers.com/r/E2241112E74CEN.html>

Date: April 2026

Pages: 181

Price: US\$ 3,450.00 (Single User License)

ID: E2241112E74CEN

Abstracts

The Europe Mass Flow Controller Market is projected to grow significantly, reaching an estimated US\$ 263.0 million by 2031, up from US\$ 188.8 million in 2024. This growth represents a compound annual growth rate (CAGR) of 5.1% from 2025 to 2031.

Executive Summary and Market Analysis

The demand for mass flow controllers in the European Union is on the rise, primarily due to the region's strategic shift towards green hydrogen as a key element of its clean energy strategy. Green hydrogen, which is generated through electrolysis powered by renewable energy sources, necessitates precise gas flow control to ensure safety, efficiency, and scalability in production, storage, and distribution systems. Mass flow controllers play a crucial role in these processes by providing accurate regulation and measurement of hydrogen and other gases.

The European Union's REPowerEU Strategy, initiated in 2022, has set ambitious targets to produce and import 10 million tonnes of green hydrogen by 2030. By 2050, it is anticipated that renewable hydrogen will account for approximately 10% of the EU's energy requirements, significantly reducing the carbon footprint of energy-intensive sectors and transportation. The success of the EU's energy transition, net-zero objectives, and sustainable development initiatives heavily relies on hydrogen, making real-time and precise flow control through mass flow controllers essential for optimizing electrolyzer performance, enhancing hydrogen yield, and minimizing energy waste.

As EU member states increase investments in electrolyzer facilities and hydrogen infrastructure under frameworks like the European Green Deal and REPowerEU, the demand for advanced flow control technologies is expected to rise. Mass flow

controllers are vital for hydrogen production and various downstream applications, including fuel cells and hydrogen refueling stations, which require stable and reliable gas flow control. Additionally, stringent EU safety and environmental regulations are driving the need for high-performance mass flow controllers that comply with rigorous standards, further propelling market growth in Europe.

Strategic Insights

Market Segmentation Analysis

The Europe Mass Flow Controller Market can be segmented based on flow rate, sensor technology, and application:

By Flow Rate: The market is divided into Low, Medium, and High flow rates, with Low flow rate controllers holding the largest market share in 2024.

By Sensor Technology: The market is categorized into Thermal Mass Flow, Coriolis Mass Flow, and Differential-Pressure Mass Flow, where Thermal Mass Flow controllers dominated the market in 2024.

By Application: The market is segmented into various industries, including Semiconductors, Food and Beverages, Chemicals, Pharmaceuticals and Healthcare, Oil and Gas, and Others, with the Others category holding the largest share in 2024.

Market Outlook

Digital mass flow controllers are increasingly in demand across industries due to their precision, reliability, and adaptability to modern industrial automation needs. Compared to traditional analog mass flow controllers, digital versions offer enhanced accuracy, real-time monitoring, and advanced diagnostics, making them suitable for high-performance applications such as semiconductor manufacturing, pharmaceuticals, biotechnology, and chemical processing. Their ability to integrate seamlessly with IoT and Industry 4.0 systems allows businesses to optimize processes, reduce downtime, and maintain consistent quality. Digital mass flow controllers also feature remote calibration, self-diagnostic capabilities, and programmable interfaces, enhancing their adaptability and cost-effectiveness.

As organizations globally focus on improving energy efficiency, environmental compliance, and operational management, the demand for digital mass flow controllers is on the rise. This growing demand is creating new opportunities in the global mass flow controller market, prompting key players to innovate and develop new products to meet the evolving needs of businesses. For instance, in July 2024, Alicat Scientific, Inc. introduced a new ISMax ATEX and IECEx Zone 0-certified mass flow controller and meter for gas flow processes, capable of handling flow rates from 0.5 SCCM to 250 SLPM, making them suitable for explosive environments. The trend towards smarter, more connected systems is expected to drive substantial growth in the adoption of digital mass flow controllers in the coming years.

Country Insights

The Europe Mass Flow Controller Market is also analyzed by country, including Germany, France, the United Kingdom, Italy, Russia, and the Rest of Europe. The Rest of Europe accounted for the largest market share in 2024.

Countries such as Sweden, Poland, Spain, Belgium, and Greece are significant contributors to the mass flow controllers market in the Rest of Europe. Spain, in particular, is witnessing a surge in demand for mass flow controllers due to the expansion of renewable energy, environmental monitoring, and pharmaceutical production. The country's commitment to clean technologies, such as solar hydrogen and biogas, necessitates precise flow control, thereby increasing the adoption of mass flow controllers. Additionally, the food and beverage sector, a major industry in Spain, relies on mass flow controllers for accurate flow regulation to ensure product quality. Spain's investments in smart industry and industrial automation further facilitate the use of modern monitoring solutions, while EU-funded innovation programs and sustainable energy goals drive growth in the mass flow controllers market.

Company Profiles

Key players in the Europe Mass Flow Controller Market include Parker Hannifin Corporation, Avantor Inc, Dwyer Instruments, Inc., Sensirion Holding AG, Teledyne Technologies Inc, Horiba Ltd, Azbil Corp, Axetris AG, MKS Instruments Inc, and Brooks Instrument. These companies are employing various strategies such as expansion, product innovation, and mergers and acquisitions to deliver innovative products and enhance their market presence.

Contents

1. INTRODUCTION

- 1.1 Report Guidance
- 1.2 Market Segmentation

2. EXECUTIVE SUMMARY

- 2.1 Key Insights
- 2.2 Market Attractiveness

3. RESEARCH METHODOLOGY

- 3.1 Secondary Research
- 3.2 Primary Research
 - 3.2.1 Hypothesis formulation:
 - 3.2.2 Macroeconomic factor analysis:
 - 3.2.3 Developing base number:
 - 3.2.4 Data Triangulation:
 - 3.2.5 Country-level data:

4. MASS FLOW CONTROLLER MARKET LANDSCAPE

- 4.1 Market Overview
- 4.2 PEST Analysis
- 4.3 Ecosystem Analysis
 - 4.3.1 List of Vendors in the Value Chain

5. EUROPE MASS FLOW CONTROLLER MARKET - KEY MARKET DYNAMICS

- 5.1 Market Drivers
- 5.2 Market Restraints
- 5.3 Market Opportunities
- 5.4 Future Trends
- 5.5 Impact of Drivers and Restraints:

6. MASS FLOW CONTROLLER MARKET - EUROPE MARKET ANALYSIS

6.1 Europe Mass Flow Controller Market Revenue (US\$ Million), 2024 - 2031

6.2 Europe Mass Flow Controller Market Forecast and Analysis

7. EUROPE MASS FLOW CONTROLLER MARKET REVENUE ANALYSIS - BY FLOW RATE

7.1 Low

7.1.1 Overview

7.1.2 Low: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

7.2 Medium

7.2.1 Overview

7.2.2 Medium: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

7.3 High

7.3.1 Overview

7.3.2 High: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8. EUROPE MASS FLOW CONTROLLER MARKET REVENUE ANALYSIS - BY SENSOR TECHNOLOGY

8.1 Thermal Mass Flow

8.1.1 Overview

8.1.2 Thermal Mass Flow: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.2 Coriolis Mass Flow

8.2.1 Overview

8.2.2 Coriolis Mass Flow: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.3 Differential-Pressure Mass Flow

8.3.1 Overview

8.3.2 Differential-Pressure Mass Flow: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9. EUROPE MASS FLOW CONTROLLER MARKET REVENUE ANALYSIS - BY APPLICATION

9.1 Semiconductors

9.1.1 Overview

9.1.2 Semiconductors: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.2 Food and Beverages Industry

9.2.1 Overview

9.2.2 Food and Beverages Industry: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.3 Chemicals

9.3.1 Overview

9.3.2 Chemicals: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.4 Pharmaceutical and Healthcare Industry

9.4.1 Overview

9.4.2 Pharmaceutical and Healthcare Industry: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.5 Oil and Gas

9.5.1 Overview

9.5.2 Oil and Gas: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.6 Others

9.6.1 Overview

9.6.2 Others: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10. EUROPE MASS FLOW CONTROLLER MARKET - COUNTRY ANALYSIS

10.1 Europe

10.1.1 Europe Mass Flow Controller Market Revenue and Forecast and Analysis - by Country

10.1.1.1 Europe Mass Flow Controller Market Revenue and Forecast and Analysis - by Country

10.1.2.2 Germany: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.1.2.2.1 Germany: Europe Mass Flow Controller Market Share - by Flow Rate

10.1.2.2.2 Germany: Europe Mass Flow Controller Market Share - by Sensor Technology

10.1.2.2.3 Germany: Europe Mass Flow Controller Market Share - by Application

10.2.3.3 France: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.2.3.3.1 France: Europe Mass Flow Controller Market Share - by Flow Rate

10.2.3.3.2 France: Europe Mass Flow Controller Market Share - by Sensor

Technology

10.2.3.3.3 France: Europe Mass Flow Controller Market Share - by Application

10.3.4.4 United Kingdom: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.3.4.4.1 United Kingdom: Europe Mass Flow Controller Market Share - by Flow Rate

10.3.4.4.2 United Kingdom: Europe Mass Flow Controller Market Share - by Sensor Technology

10.3.4.4.3 United Kingdom: Europe Mass Flow Controller Market Share - by Application

10.4.5.5 Italy: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.4.5.5.1 Italy: Europe Mass Flow Controller Market Share - by Flow Rate

10.4.5.5.2 Italy: Europe Mass Flow Controller Market Share - by Sensor Technology

10.4.5.5.3 Italy: Europe Mass Flow Controller Market Share - by Application

10.5.6.6 Russia: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.5.6.6.1 Russia: Europe Mass Flow Controller Market Share - by Flow Rate

10.5.6.6.2 Russia: Europe Mass Flow Controller Market Share - by Sensor Technology

10.5.6.6.3 Russia: Europe Mass Flow Controller Market Share - by Application

10.6.7.7 Rest of Europe: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.6.7.7.1 Rest of Europe: Europe Mass Flow Controller Market Share - by Flow Rate

10.6.7.7.2 Rest of Europe: Europe Mass Flow Controller Market Share - by Sensor Technology

10.6.7.7.3 Rest of Europe: Europe Mass Flow Controller Market Share - by Application

11 COMPETITIVE LANDSCAPE

11.1 Heat Map Analysis by Key Players

11.2 Company Market Share Analysis, 2024

12 INDUSTRY LANDSCAPE

- 12.1 Overview
- 12.2 New Product Development
- 12.3 Merger and Acquisition
- 12.4 Other Strategic Developments

13 COMPANY PROFILES

13.1 Parker Hannifin Corporation

- 13.1.1 Key Facts
- 13.1.2 Business Description
- 13.1.3 Products and Services
- 13.1.4 Financial Overview
- 13.1.5 SWOT Analysis
- 13.1.6 Key Developments

13.2 Avantor Inc

- 13.2.1 Key Facts
- 13.2.2 Business Description
- 13.2.3 Products and Services
- 13.2.4 Financial Overview
- 13.2.5 SWOT Analysis
- 13.2.6 Key Developments

13.3 Dwyer Instruments, Inc.

- 13.3.1 Key Facts
- 13.3.2 Business Description
- 13.3.3 Products and Services
- 13.3.4 Financial Overview
- 13.3.5 SWOT Analysis
- 13.3.6 Key Developments

13.4 Sensirion Holding AG

- 13.4.1 Key Facts
- 13.4.2 Business Description
- 13.4.3 Products and Services
- 13.4.4 Financial Overview
- 13.4.5 SWOT Analysis
- 13.4.6 Key Developments

13.5 Teledyne Technologies Inc

- 13.5.1 Key Facts
- 13.5.2 Business Description
- 13.5.3 Products and Services

- 13.5.4 Financial Overview
- 13.5.5 SWOT Analysis
- 13.5.6 Key Developments
- 13.6 Horiba Ltd
 - 13.6.1 Key Facts
 - 13.6.2 Business Description
 - 13.6.3 Products and Services
 - 13.6.4 Financial Overview
 - 13.6.5 SWOT Analysis
 - 13.6.6 Key Developments
- 13.7 Azbil Corp
 - 13.7.1 Key Facts
 - 13.7.2 Business Description
 - 13.7.3 Products and Services
 - 13.7.4 Financial Overview
 - 13.7.5 SWOT Analysis
 - 13.7.6 Key Developments
- 13.8 Axetris AG
 - 13.8.1 Key Facts
 - 13.8.2 Business Description
 - 13.8.3 Products and Services
 - 13.8.4 Financial Overview
 - 13.8.5 SWOT Analysis
 - 13.8.6 Key Developments
- 13.9 MKS Instruments Inc
 - 13.9.1 Key Facts
 - 13.9.2 Business Description
 - 13.9.3 Products and Services
 - 13.9.4 Financial Overview
 - 13.9.5 SWOT Analysis
 - 13.9.6 Key Developments
- 13.10 Brooks Instrument
 - 13.10.1 Key Facts
 - 13.10.2 Business Description
 - 13.10.3 Products and Services
 - 13.10.4 Financial Overview
 - 13.10.5 SWOT Analysis
 - 13.10.6 Key Developments

14. APPENDIX

14.1 About The Insight Partners

List Of Tables

LIST OF TABLES

Table 1. Europe Mass Flow Controller Market Segmentation

Table 2. List of Vendors

Table 3. Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Table 4. Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Flow Rate

Table 5. Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Sensor Technology

Table 6. Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 7. Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Country

Table 8. Germany: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Flow Rate

Table 9. Germany: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Sensor Technology

Table 10. Germany: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 11. France: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Flow Rate

Table 12. France: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Sensor Technology

Table 13. France: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 14. United Kingdom: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Flow Rate

Table 15. United Kingdom: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Sensor Technology

Table 16. United Kingdom: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 17. Italy: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Flow Rate

Table 18. Italy: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Sensor Technology

Table 19. Italy: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 20. Russia: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Flow Rate

Table 21. Russia: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Sensor Technology

Table 22. Russia: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 23. Rest of Europe: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Flow Rate

Table 24. Rest of Europe: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Sensor Technology

Table 25. Rest of Europe: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 26. Heat Map Analysis by Key Players

List Of Figures

LIST OF FIGURES

Figure 1. Europe Mass Flow Controller Market Segmentation - Country

Figure 2. PEST Analysis

Figure 3. Ecosystem: Mass Flow Controller Market

Figure 4. Europe Mass Flow Controller Market - Key Market Dynamics

Figure 5. Impact Analysis of Drivers and Restraints

Figure 6. Europe Mass Flow Controller Market Revenue (US\$ Million), 2024 - 2031

Figure 7. Europe Mass Flow Controller Market Share (%) - by Flow Rate, 2024 and 2031

Figure 8. Low: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 9. Medium: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 10. High: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 11. Europe Mass Flow Controller Market Share (%) - by Sensor Technology, 2024 and 2031

Figure 12. Thermal Mass Flow: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 13. Coriolis Mass Flow: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 14. Differential-Pressure Mass Flow: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 15. Europe Mass Flow Controller Market Share (%) - by Application, 2024 and 2031

Figure 16. Semiconductors: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 17. Food and Beverages Industry: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 18. Chemicals: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 19. Pharmaceutical and Healthcare Industry: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 20. Oil and Gas: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 21. Others: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 22. Europe Mass Flow Controller Market Breakdown by Key Countries, 2024 and 2031 (%)

Figure 23. Germany: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 24. France: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 25. United Kingdom: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 26. Italy: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 27. Russia: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 28. Rest of Europe: Europe Mass Flow Controller Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 29. Company Market Share Analysis, 2024

I would like to order

Product name: Europe Mass Flow Controller Market Size and Forecast (2021 - 2031)

Product link: <https://marketpublishers.com/r/E2241112E74CEN.html>

Price: US\$ 3,450.00 (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/E2241112E74CEN.html>