+357 96 030922
info@marketpublishers.com

Micro and Nano PLC Market Forecasts to 2030 – Global Analysis By Type (Micro PLCs and Nano PLCs), Capacity, Offering, Architecture, Communication Protocol, End User and By Geography

https://marketpublishers.com/r/M4378D3F35DCEN.html
Date: April 2025
Pages: 150
Price: US$ 4,150.00 (Single User License)
ID: M4378D3F35DCEN

Abstracts

According to Stratistics MRC, the Global Micro and Nano PLC Market is accounted for $10.38 billion in 2024 and is expected to reach $16.47 billion by 2030 growing at a CAGR of 8% during the forecast period. Compact industrial control systems called micro and nano PLCs (Programmable Logic Controllers) are made for automation in small-scale applications. Slightly bigger, micro PLCs provide basic networking, basic control operations, and increased I/O (Input/Output) capabilities. The smallest type of PLCs, called nano PLCs, are used for simple logic control and frequently have less I/O and little programming. For uses like process automation, HVAC, and machine control, both are perfect. They are crucial for enterprises looking for effective automation in confined places with minimal power consumption because of their cost, adaptability, and simplicity of integration.

Market Dynamics:

Driver:

Growing industrial automation

Nano PLCs improve productivity and save operating costs by enabling fine control in automated processes. They are becoming more and more important for real-time monitoring and process optimisation in sectors including manufacturing, automotive, and food processing. Their acceptance is further accelerated by the growing trend of

+357 96 030922
info@marketpublishers.com

smart manufacturing and IoT integration. Further driving market expansion is the requirement for space-efficient control solutions in sectors with constrained installation spaces. Micro and Nano PLCs will remain essential for optimising industrial processes as automation develops.

Restraint:

High initial cost of implementation

The high costs of hardware, software, and system integration make many companies hesitant to make investments. Costs are further increased by the requirement for qualified experts to install and maintain these systems. Cost-sensitive sectors find it less appealing since high upfront investments also lengthen the return on investment term. Furthermore, extensive adoption is slowed down in emerging nations by financial restrictions. As a result, businesses frequently postpone automation improvements or use conventional control solutions.

Opportunity:

Growing demand for smart cities

Intelligent lighting, traffic management systems, and smart grids may all be easily controlled with these little PLCs. They are perfect for urban applications with limited space because of their compact size and low power usage. Their acceptance is further accelerated by growing investments in IoT and AI-driven smart city initiatives. Globally, governments are giving smart city projects top priority, which is driving up demand for sophisticated automation technologies.

Threat:

Regulatory & compliance challenges

Product releases are delayed by frequent revisions to industry laws that necessitate ongoing adaption. For producers that operate across borders, adhering to international standards increases complication. Small players' access to the market is restricted by the time-consuming and expensive certification procedures. Regulations pertaining to data security and privacy make integrating cloud-based and Internet of Things devices even more difficult. These obstacles limit market expansion by stifling innovation and acceptance.

+357 96 030922
info@marketpublishers.com

Covid-19 Impact

The COVID-19 pandemic disrupted the Micro and Nano PLC market by causing supply chain delays, semiconductor shortages, and reduced manufacturing activities. Lockdowns and economic slowdowns impacted industrial automation projects, leading to decreased demand. However, as industries adapted to remote monitoring and automation, the market saw a gradual recovery. The crisis accelerated digital transformation, increasing the adoption of compact PLCs for smart manufacturing and IoT applications. Post-pandemic, rising investments in automation and Industry 4.0 are driving market growth.

The micro PLCs segment is expected to be the largest during the forecast period

The micro PLCs segment is expected to account for the largest market share during the forecast period by offering compact, cost-effective automation solutions for small-scale industries. Their increasing use in the energy, automotive, and industrial industries improves flexibility and operating efficiency. The need for mini PLCs is further increased by developments in Industry 4.0 and the Internet of Things, which allow for smart control and real-time monitoring. Their market presence is strengthened by greater integration with cloud-based and wireless communication technology.

The automotive segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the automotive segment is predicted to witness the highest growth rate by increasing demand for compact, high-performance automation solutions in modern vehicles. PLC usage is increased by the need for precise control in electric vehicles (EVs) and advanced driver-assistance systems (ADAS). Micro and Nano PLCs are used by manufacturers to increase production efficiency and guarantee premium automobile components. The integration of these small controllers is further accelerated by the emerging trend of Industry 4.0 and smart factories.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share due to rising industrial automation and demand for compact, high-performance controllers. Key industries such as manufacturing, automotive, and energy are driving adoption. The U.S. leads with strong technological advancements and

+357 96 030922
info@marketpublishers.com

investments in smart factories. Increasing demand for efficient, space-saving solutions fuels market expansion. Major players focus on innovation, enhanced connectivity, and cybersecurity. Government initiatives promoting automation further support growth, making North America a key hub for micro and nano PLC development.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, owing to increasing industrial automation, smart manufacturing, and IoT adoption. Countries like China, Japan, South Korea, and India are driving demand with advancements in robotics, automotive, and electronics sectors. Rising investments in Industry 4.0 and miniaturized control systems enhance efficiency in manufacturing. Government initiatives supporting automation further boost market expansion. The region’s strong semiconductor industry and growing SMEs contribute to the increasing adoption of compact, high-performance PLCs.

Key players in the market

Some of the key players profiled in the Micro and Nano PLC Market include IDEC Corporation, Schleicher Electronic, DirectLOGIC (Koyo), Plessey Semiconductors, Morse Micro, Digico Limited, Siemens AG, Rockwell Automation, Mitsubishi Electric Corporation, Schneider Electric, Omron Corporation, ABB Ltd., Delta Electronics, Panasonic Corporation, Hitachi Ltd., Bosch Rexroth AG, Beckhoff Automation and Honeywell International Inc.

Key Developments:

In November 2024, IDEC agreed to acquire the remaining 50% stake in IDEC Datalogic Co., Ltd. from Datalogic S.p.A. for approximately ?130 million. This acquisition aimed to strengthen IDEC's presence in the Japanese market and expand its product portfolio.

In February 2024, IDEC introduced the FT2J Series, a combined PLC and HMI solution designed to streamline industrial automation processes. This product offers a compact form factor, integrating controller features with an advanced seven-inch touchscreen display, thereby reducing panel space requirements and simplifying installation.

Types Covered:

Micro PLCs

+357 96 030922
info@marketpublishers.com

Nano PLCs

Offerings Covered:

Hardware

Software

Services

Architectures Covered:

Fixed PLCs

Modular PLCs

Communication Protocols Covered:

Ethernet

PROFINET

Modbus TCP

DeviceNet

CANopen

Profibus

Other Communication Protocols

End Users Covered:

+357 96 030922
info@marketpublishers.com

- Automotive
- Food & Beverage
- Pharmaceuticals
- Energy & Utilities
- Oil & Gas
- Metals & Mining
- Chemical & Petrochemical
- Water & Wastewater Treatment
- Electronics & Semiconductor
- Logistics & Warehousing
- Other End Users

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK

+357 96 030922
info@marketpublishers.com

- Italy
- France
- Spain
- Rest of Europe

Asia Pacific

- Japan
- China
- India
- Australia
- New Zealand
- South Korea
- Rest of Asia Pacific

South America

- Argentina
- Brazil
- Chile
- Rest of South America

Middle East & Africa

- Saudi Arabia
- UAE

+357 96 030922
info@marketpublishers.com

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2022, 2023, 2024, 2026, and 2030
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical

+357 96 030922
info@marketpublishers.com

presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

10 GLOBAL MICRO AND NANO PLC MARKET, BY GEOGRAPHY

+357 96 030922
info@marketpublishers.com

11 KEY DEVELOPMENTS

12 COMPANY PROFILING

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Micro and Nano PLC Market Forecasts to 2030 – Global Analysis By Type (Micro PLCs and Nano PLCs), Capacity, Offering, Architecture, Communication Protocol, End User and By Geography

Product link: https://marketpublishers.com/r/M4378D3F35DCEN.html

Price: US$ 4,150.00 (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/M4378D3F35DCEN.html