

# Programmable Logic Controller Market Forecasts to 2032 – Global Analysis By Type (Modular PLC, Rack-Mounted PLC, Compact / Unitary PLC, and Other Types), Component, Technology, Application, End User and By Geography

<https://marketpublishers.com/r/P54FBF526FB5EN.html>

Date: January 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: P54FBF526FB5EN

## Abstracts

According to Statistics MRC, the Global Programmable Logic Controller Market is accounted for \$12.96 billion in 2025 and is expected to reach \$22.80 billion by 2032 growing at a CAGR of 8.4% during the forecast period. A Programmable Logic Controller is a ruggedized industrial control system used to automate machinery and operational processes. It works by receiving signals from field devices, processing them according to programmed instructions, and sending commands to output devices to perform specific actions. Built for continuous operation, PLCs provide fast response times, high reliability, and resistance to industrial conditions. Their modular design, flexible programming languages, and network compatibility make them essential for efficient, safe, and scalable industrial automation systems.

According to the U.S. Department of Energy, in the U.S., the manufacturing sectors alone invest USD 182 billion on automation and control systems in 2022.

### Market Dynamics:

Driver:

Expansion of industrial automation

Manufacturing industries are increasingly deploying automated systems to improve productivity, consistency, and operational efficiency. PLCs play a critical role in

controlling machinery, assembly lines, and process operations across sectors such as automotive, food & beverage, and electronics. The growing adoption of Industry 4.0 practices is further strengthening the demand for intelligent and connected control systems. Advancements in sensors, robotics, and machine vision are increasing the complexity of automation setups, where PLCs act as central control units. Companies are also using PLC-based automation to reduce downtime and enhance quality control. As industries pursue cost optimization and scalable production, PLC adoption continues to accelerate globally.

Restraint:

#### Skill gap and technical complexity

Designing, programming, and maintaining PLC systems require specialized technical knowledge and hands-on experience. As PLC architectures evolve with advanced communication protocols and integrated software platforms, system complexity is increasing. Many end users face challenges in upgrading legacy systems due to limited in-house expertise. Training costs and longer learning curves further discourage small and mid-sized enterprises from adopting advanced PLC solutions. Integration of PLCs with IoT, cloud platforms, and cybersecurity frameworks adds additional technical hurdles. These factors collectively slow implementation timelines and restrain broader market penetration.

Opportunity:

#### Smart city and infrastructure projects

Urban development initiatives increasingly rely on automated control systems for traffic management, water treatment, energy distribution, and public safety. PLCs are widely used in these applications due to their reliability, real-time control capabilities, and adaptability. Governments across emerging and developed economies are investing in digital infrastructure to improve operational efficiency and sustainability. The integration of PLCs with SCADA and building management systems is enhancing centralized monitoring and control. Smart transportation networks and intelligent utilities are further expanding PLC use cases. As urbanization accelerates, PLCs are becoming a core component of modern infrastructure ecosystems.

Threat:

## Competition from industrial PCs (IPCs) and DCS

IPCs offer higher computing power and flexibility, making them attractive for data-intensive and complex automation tasks. DCS solutions are preferred in large-scale process industries due to their advanced redundancy and system-wide control capabilities. Continuous improvements in IPC reliability and ruggedness are narrowing the performance gap with PLCs. Some end users are shifting toward software-driven control platforms to enable greater customization. Cost considerations and evolving application requirements also influence technology substitution decisions. This competitive landscape poses a challenge to traditional PLC deployments in certain industrial segments.

### **Covid-19 Impact:**

The COVID-19 pandemic had a mixed impact on the PLC market. Initial lockdowns disrupted manufacturing operations, delaying automation projects and PLC installations. Supply chain interruptions affected the availability of electronic components, increasing lead times and costs. However, the pandemic also highlighted the importance of automation in maintaining production continuity. Industries accelerated investments in remote monitoring, digital control, and automated operations to reduce workforce dependency. PLCs became essential in enabling resilient and flexible manufacturing environments. Post-pandemic recovery strategies now emphasize automation as a long-term operational priority.

The modular PLC segment is expected to be the largest during the forecast period

The modular PLC segment is expected to account for the largest market share during the forecast period, due to its flexibility and scalability. Modular PLCs allow users to customize system configurations by adding or removing input/output and communication modules. This adaptability makes them suitable for complex and evolving industrial processes. Industries prefer modular designs to accommodate future expansion without complete system replacement. Enhanced processing capabilities and advanced networking features further strengthen their appeal. Modular PLCs also simplify maintenance and reduce downtime through easy component replacement.

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

Over the forecast period, the pharmaceuticals segment is predicted to witness the

highest growth rate. Pharmaceutical manufacturing demands high precision, repeatability, and strict regulatory compliance. PLCs are widely used to automate processes such as batch production, packaging, and quality inspection. The growing focus on digital manufacturing and validation-ready automation systems is driving PLC adoption. Increasing investments in pharmaceutical production capacity, particularly in emerging markets, are supporting market growth. Integration of PLCs with data logging and monitoring systems enhances traceability and compliance. As demand for efficient and contamination-free production rises, PLC usage in pharmaceuticals continues to expand rapidly.

### **Region with largest share:**

During the forecast period, the Asia Pacific region is expected to hold the largest market share, due to rapid industrialization and manufacturing expansion across countries such as China, India, and South Korea are key contributors. Governments are promoting automation to enhance industrial competitiveness and production efficiency. Significant investments in automotive, electronics, and energy sectors are increasing PLC deployment. The presence of large-scale manufacturing hubs further strengthens regional demand. Local production and adoption of cost-effective automation solutions support wider market penetration.

### **Region with highest CAGR:**

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, owing to early adoption of advanced automation and digital manufacturing technologies. Industries are actively upgrading legacy control systems to smart and connected PLC platforms. Strong emphasis on industrial IoT, cybersecurity, and data-driven operations is driving system modernization. The presence of major PLC manufacturers and technology innovators supports rapid adoption. Increased investments in energy, logistics, and advanced manufacturing are further boosting demand.

### **Key players in the market**

Some of the key players in Programmable Logic Controller Market include Siemens AG, Hitachi, Ltd., Rockwell Automation, Inc., Beckhoff Automation GmbH & Co. KG, Mitsubishi Electric Corporation, Keyence Corporation, Schneider Electric SE, Panasonic Corporation, Omron Corporation, Toshiba Corporation, ABB Ltd., Yokogawa Electric Corporation, Emerson Electric Co., Honeywell International Inc., and Bosch Rexroth

AG.

### **Key Developments:**

In December 2025, VinSpeed High-Speed Railway Investment and Development Joint Stock Company and Siemens Mobility have signed a Comprehensive Strategic Partnership and Framework Agreement, launching a broad cooperation for high-speed rail in Vietnam. Siemens Mobility will serve as technology partner, responsible for the design, supply, and integration of modern Velaro Novo high-speed trains and key railway subsystems, including ETCS Level 2 signaling with automatic train operation (ATO), telecommunications, and electrification systems.

In October 2025, Rockwell Automation recently announced its continued collaboration with Energy Observer, supporting the development and launch of the Energy Observer 3 (EO3) watercraft. This next-generation laboratory vessel will test a variety of low-carbon solutions in real maritime conditions, setting new standards for decarbonization and innovation in maritime mobility.

### Types Covered:

Modular PLC

Rack-Mounted PLC

Compact / Unitary PLC

Other Types

### Components Covered:

Hardware

Software

Services

### Technologies Covered:

Traditional PLC

IoT-Enabled PLC

AI / Edge-Integrated PLC

Cloud-Connected

#### Applications Covered:

Industrial Automation

Process Automation

Robotics & Motion Control

Building Automation

Safety & Control Systems

Other Applications

#### End Users Covered:

Automotive

Aerospace & Defense

Manufacturing

Metals & Mining

Energy & Power

Electronics & Semiconductors

Oil & Gas

Water & Wastewater

Food & Beverage

Pharmaceuticals

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

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

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 2024, 2025, 2026, 2028, and 2032
- 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 presence, and strategic alliances

## Contents

### **1 EXECUTIVE SUMMARY**

### **2 PREFACE**

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
  - 2.4.1 Data Mining
  - 2.4.2 Data Analysis
  - 2.4.3 Data Validation
  - 2.4.4 Research Approach
- 2.5 Research Sources
  - 2.5.1 Primary Research Sources
  - 2.5.2 Secondary Research Sources
  - 2.5.3 Assumptions

### **3 MARKET TREND ANALYSIS**

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 End User Analysis
- 3.9 Emerging Markets
- 3.10 Impact of Covid-19

### **4 PORTERS FIVE FORCE ANALYSIS**

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

## **5 GLOBAL PROGRAMMABLE LOGIC CONTROLLER MARKET, BY TYPE**

- 5.1 Introduction
- 5.2 Modular PLC
- 5.3 Rack-Mounted PLC
- 5.4 Compact / Unitary PLC
- 5.5 Other Types

## **6 GLOBAL PROGRAMMABLE LOGIC CONTROLLER MARKET, BY COMPONENT**

- 6.1 Introduction
- 6.2 Hardware
  - 6.2.1 CPU (Processor)
  - 6.2.2 Human Machine Interface
  - 6.2.3 Input / Output (I/O) Modules
  - 6.2.4 Memory & Storage Modules
  - 6.2.5 Power Supply
  - 6.2.6 Communication Modules
- 6.3 Software
  - 6.3.1 Programming Software
  - 6.3.2 Monitoring/Diagnostic Software
  - 6.3.3 Configuration Software
- 6.4 Services
  - 6.4.1 Installation & Integration
  - 6.4.2 Maintenance & Support
  - 6.4.3 Training & Consulting

## **7 GLOBAL PROGRAMMABLE LOGIC CONTROLLER MARKET, BY TECHNOLOGY**

- 7.1 Introduction
- 7.2 Traditional PLC
- 7.3 IoT-Enabled PLC
- 7.4 AI / Edge-Integrated PLC
- 7.5 Cloud-Connected

## **8 GLOBAL PROGRAMMABLE LOGIC CONTROLLER MARKET, BY APPLICATION**

- 8.1 Introduction

- 8.2 Industrial Automation
- 8.3 Process Automation
- 8.4 Robotics & Motion Control
- 8.5 Building Automation
- 8.6 Safety & Control Systems
- 8.7 Other Applications

## **9 GLOBAL PROGRAMMABLE LOGIC CONTROLLER MARKET, BY END USER**

- 9.1 Introduction
- 9.2 Automotive
- 9.3 Aerospace & Defense
- 9.4 Manufacturing
- 9.5 Metals & Mining
- 9.6 Energy & Power
- 9.7 Electronics & Semiconductors
- 9.8 Oil & Gas
- 9.9 Water & Wastewater
- 9.10 Food & Beverage
- 9.11 Pharmaceuticals
- 9.12 Other End Users

## **10 GLOBAL PROGRAMMABLE LOGIC CONTROLLER MARKET, BY GEOGRAPHY**

- 10.1 Introduction
- 10.2 North America
  - 10.2.1 US
  - 10.2.2 Canada
  - 10.2.3 Mexico
- 10.3 Europe
  - 10.3.1 Germany
  - 10.3.2 UK
  - 10.3.3 Italy
  - 10.3.4 France
  - 10.3.5 Spain
  - 10.3.6 Rest of Europe
- 10.4 Asia Pacific
  - 10.4.1 Japan
  - 10.4.2 China

- 10.4.3 India
- 10.4.4 Australia
- 10.4.5 New Zealand
- 10.4.6 South Korea
- 10.4.7 Rest of Asia Pacific
- 10.5 South America
  - 10.5.1 Argentina
  - 10.5.2 Brazil
  - 10.5.3 Chile
  - 10.5.4 Rest of South America
- 10.6 Middle East & Africa
  - 10.6.1 Saudi Arabia
  - 10.6.2 UAE
  - 10.6.3 Qatar
  - 10.6.4 South Africa
  - 10.6.5 Rest of Middle East & Africa

## **11 KEY DEVELOPMENTS**

- 11.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 11.2 Acquisitions & Mergers
- 11.3 New Product Launch
- 11.4 Expansions
- 11.5 Other Key Strategies

## **12 COMPANY PROFILING**

- 12.1 Siemens AG
- 12.2 Hitachi, Ltd.
- 12.3 Rockwell Automation, Inc.
- 12.4 Beckhoff Automation GmbH & Co. KG
- 12.5 Mitsubishi Electric Corporation
- 12.6 Keyence Corporation
- 12.7 Schneider Electric SE
- 12.8 Panasonic Corporation
- 12.9 Omron Corporation
- 12.10 Toshiba Corporation
- 12.11 ABB Ltd.
- 12.12 Yokogawa Electric Corporation

12.13 Emerson Electric Co.

12.14 Honeywell International Inc.

12.15 Bosch Rexroth AG

## List Of Tables

### LIST OF TABLES

Table 1 Global Programmable Logic Controller Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Programmable Logic Controller Market Outlook, By Type (2024-2032) (\$MN)

Table 3 Global Programmable Logic Controller Market Outlook, By Modular PLC (2024-2032) (\$MN)

Table 4 Global Programmable Logic Controller Market Outlook, By Rack-Mounted PLC (2024-2032) (\$MN)

Table 5 Global Programmable Logic Controller Market Outlook, By Compact / Unitary PLC (2024-2032) (\$MN)

Table 6 Global Programmable Logic Controller Market Outlook, By Other Types (2024-2032) (\$MN)

Table 7 Global Programmable Logic Controller Market Outlook, By Component (2024-2032) (\$MN)

Table 8 Global Programmable Logic Controller Market Outlook, By Hardware (2024-2032) (\$MN)

Table 9 Global Programmable Logic Controller Market Outlook, By CPU (Processor) (2024-2032) (\$MN)

Table 10 Global Programmable Logic Controller Market Outlook, By Human Machine Interface (2024-2032) (\$MN)

Table 11 Global Programmable Logic Controller Market Outlook, By Input / Output (I/O) Modules (2024-2032) (\$MN)

Table 12 Global Programmable Logic Controller Market Outlook, By Memory & Storage Modules (2024-2032) (\$MN)

Table 13 Global Programmable Logic Controller Market Outlook, By Power Supply (2024-2032) (\$MN)

Table 14 Global Programmable Logic Controller Market Outlook, By Communication Modules (2024-2032) (\$MN)

Table 15 Global Programmable Logic Controller Market Outlook, By Software (2024-2032) (\$MN)

Table 16 Global Programmable Logic Controller Market Outlook, By Programming Software (2024-2032) (\$MN)

Table 17 Global Programmable Logic Controller Market Outlook, By Monitoring/Diagnostic Software (2024-2032) (\$MN)

Table 18 Global Programmable Logic Controller Market Outlook, By Configuration

Software (2024-2032) (\$MN)

Table 19 Global Programmable Logic Controller Market Outlook, By Services (2024-2032) (\$MN)

Table 20 Global Programmable Logic Controller Market Outlook, By Installation & Integration (2024-2032) (\$MN)

Table 21 Global Programmable Logic Controller Market Outlook, By Maintenance & Support (2024-2032) (\$MN)

Table 22 Global Programmable Logic Controller Market Outlook, By Training & Consulting (2024-2032) (\$MN)

Table 23 Global Programmable Logic Controller Market Outlook, By Technology (2024-2032) (\$MN)

Table 24 Global Programmable Logic Controller Market Outlook, By Traditional PLC (2024-2032) (\$MN)

Table 25 Global Programmable Logic Controller Market Outlook, By IoT-Enabled PLC (2024-2032) (\$MN)

Table 26 Global Programmable Logic Controller Market Outlook, By AI / Edge-Integrated PLC (2024-2032) (\$MN)

Table 27 Global Programmable Logic Controller Market Outlook, By Cloud-Connected (2024-2032) (\$MN)

Table 28 Global Programmable Logic Controller Market Outlook, By Application (2024-2032) (\$MN)

Table 29 Global Programmable Logic Controller Market Outlook, By Industrial Automation (2024-2032) (\$MN)

Table 30 Global Programmable Logic Controller Market Outlook, By Process Automation (2024-2032) (\$MN)

Table 31 Global Programmable Logic Controller Market Outlook, By Robotics & Motion Control (2024-2032) (\$MN)

Table 32 Global Programmable Logic Controller Market Outlook, By Building Automation (2024-2032) (\$MN)

Table 33 Global Programmable Logic Controller Market Outlook, By Safety & Control Systems (2024-2032) (\$MN)

Table 34 Global Programmable Logic Controller Market Outlook, By Other Applications (2024-2032) (\$MN)

Table 35 Global Programmable Logic Controller Market Outlook, By End User (2024-2032) (\$MN)

Table 36 Global Programmable Logic Controller Market Outlook, By Automotive (2024-2032) (\$MN)

Table 37 Global Programmable Logic Controller Market Outlook, By Aerospace & Defense (2024-2032) (\$MN)

Table 38 Global Programmable Logic Controller Market Outlook, By Manufacturing (2024-2032) (\$MN)

Table 39 Global Programmable Logic Controller Market Outlook, By Metals & Mining (2024-2032) (\$MN)

Table 40 Global Programmable Logic Controller Market Outlook, By Energy & Power (2024-2032) (\$MN)

Table 41 Global Programmable Logic Controller Market Outlook, By Electronics & Semiconductors (2024-2032) (\$MN)

Table 42 Global Programmable Logic Controller Market Outlook, By Oil & Gas (2024-2032) (\$MN)

Table 43 Global Programmable Logic Controller Market Outlook, By Water & Wastewater (2024-2032) (\$MN)

Table 44 Global Programmable Logic Controller Market Outlook, By Food & Beverage (2024-2032) (\$MN)

Table 45 Global Programmable Logic Controller Market Outlook, By Pharmaceuticals (2024-2032) (\$MN)

Table 46 Global Programmable Logic Controller Market Outlook, By Other End Users (2024-2032) (\$MN)

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

## I would like to order

Product name: Programmable Logic Controller Market Forecasts to 2032 – Global Analysis By Type (Modular PLC, Rack-Mounted PLC, Compact / Unitary PLC, and Other Types), Component, Technology, Application, End User and By Geography

Product link: <https://marketpublishers.com/r/P54FBF526FB5EN.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](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/P54FBF526FB5EN.html>