

# Process Automation and Instrumentation Market with COVID-19 Impact Analysis by Instrument (Field Instruments, Process Analyzers), Solution (PLC, DCS, SCADA, HMI, Functional Safety, MES), Industry and Region - Global Forecast to 2027

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# **Abstracts**

The global process automation and instrumentation market size is expected to grow from USD 66.2 billion in 2022 to USD 86.6 billion by 2026, at a CAGR of 5.5%. The growth of this market can be attributed to the growing importance of energy efficiency and cost optimization, increased productivity, minimized errors and better scalability; the increasing use of digital technologies such as IIoT, machine learning, and artificial intelligence; and the rising emphasis on industrial automation and optimum utilization of resources. However, COVID-19 pandemic had a negative impact on the growth of various process industries which is likely to affect the demand for process automation and instrumentation products in some regions.

'Oil & gas industry is leading the global process automation and instrumentation market"

The oil & gas industry is leading the global process automation and instrumentation market at present, and a similar trend is likely to continue in the next few years. Oil and gas companies are increasingly leveraging process automation and instrumentation to acquire a constant stream of data that can be mined, aggregated into big data, and transformed into smart data through analytics and detailed analysis. Major components used for process automation and instrumentation in the oil & gas industry are solutions, such as MES and SCADA, and instruments, such as control valves, actuators, positioners, flowmeters, and transmitters. The oil demand can be met by increasing the productivity and efficiency of the oil and gas companies. Therefore, it becomes



necessary for industry players to implement solutions to improve manufacturing processes. This can ultimately be achieved by adopting process automation and instrumentation solutions such as HMI, SCADA, and PLC.

"Field instruments dominated the global process automation and instrumentation market in 2021"

Field instruments assist in managing plant assets, enhancing plant safety, and optimizing overall production processes through data acquisition, control, and measurement. It is necessary to obtain key information regarding major parameters, including temperature, pressure, and level, to monitor and control processes quickly, smoothly, securely, and accurately, as well as to achieve optimum productivity. These instruments play a pivotal role in measuring and controlling process parameters in process industries. For example, in June 2021, Emerson Electric Co. introduced a new Rosemount 1408H level transmitter, specifically designed for the food & beverages industry. The constant release of advanced products to automate industrial processes and measure and control different process parameters is expected to drive the process automation and instrumentation market for field instruments.

"Asia Pacific to grow at the highest CAGR during the forecast period of 2022 to 2027"

In terms of region, Asia Pacific led the global process automation and instrumentation market, followed Asia Pacific led the global process automation and instrumentation market, followed by North America and Europe in 2021. In Asia Pacific, the demand for process automation and instrumentation solutions is growing from the oil & gas and food & beverages industries due to the ever-increasing population in Asia Pacific. Increasing investments in clean energy infrastructure in Asia Pacific to meet escalating demand for electricity and reduce reliance on fossil fuels to generate energy. Also, the process automation and instrumentation market for the pharmaceuticals industry in this region is expected to grow at the highest CAGR from 2022 to 2027 due to changing regulatory environment. Also, advantages such as higher reliability and flexibility and greater speed and accuracy offered by process automation encourage pharma companies to adopt process automation and instrumentation solutions.

Breakdown of the profiles of primary participants:

By Company Type: Tier 1 - 40%, Tier 2 - 25%, and Tier 3 - 35%

By Designation: C-level Executives - 47%, Directors - 32%, and others - 21%



By Region: North America - 29%, Europe – 27%, Asia Pacific - 38%, and RoW - 6%

Major players profiled in this report are as follows: ABB Ltd (Switzerland), Emerson Electric Co. (US), Siemens (Germany), General Electric Company (US), and Schneider Electric (France), and others.

## Research Coverage

In this report, the process automation and instrumentation market has been segmented based on instrument, solution, industry, and region. The process automation and instrumentation market based on instrument has been segmented into field instruments and process analyzers. Based on solution, the market is segmented into PLC, DCS, SCADA, HMI, functional safety, and MES. Based on industry, the market has been segmented into oil & gas, chemicals, pulp & paper, pharmaceuticals, metals & mining, food & beverages, energy & power, water & wastewater treatment, and others. The study also forecasts the size of the market in four main regions—North America, Europe, APAC, and RoW.

Key Benefits of Buying the Report:

The report would help market leaders/new entrants in this market in the following ways:

This report segments of the process automation and instrumentation market comprehensively and provides the closest approximation of the overall market size and subsegments that include instrument, solution, industry, and region.

The report would help stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities pertaining to the process automation and instrumentation market.

This report would help stakeholders understand their competitors better and gain more insights to enhance their position in the business.

The competitive landscape section includes the competitor ecosystem, as well as growth strategies such as product launches and acquisitions carried out by major market players







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# **About**

The process automation and instrumentation market report details the design architecture, market statistics, and market standards for process automation. The report is segmented into process automation and instrumentation. The overall process automation market is further segmented into technology, hardware, software, and services. On the other hand, process instrumentation is segmented on the basis of four principle types of transmitters: flow, pressure, temperature, and level. Apart from transmitters, process instrumentation generally consists of another very important instrument segment called "control valves". Control valves are the most important device for the process industry. They are used for controlling conditions such as temperature, pressure, flow, and liquid level by partially or completely closing or opening to respond to the signals received from the controllers; which, in turn, compare a "setpoint" to a "process variable"; whose value gets provided by sensors monitoring changes in these conditions.

This report aims to detail the aggregation of equipment, components, systems, OEM, and contractor services. It also aims to capture the market roadmap with market sizes, value forecasts, market dynamics, application market and product trends, geographical analysis, and price trends. The report is fragmented into segments like components and services, production process technology, applications, and geography; each of these segments is further divided into sub-segments.

The report also identifies different market dynamics like drivers, restraints, and opportunities of each of the markets. Major players of the current market and the players with high potential to enter the market have been identified and profiled. Apart from the company profiles, competitive landscape (CL) of key players for each of the markets has been discussed. The CL includes detailed market share analysis, mergers and acquisitions, collaborations, partnerships, new product developments, and the key growth strategies of each player.



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