

# **Safety Instrumented Systems Market by Component (Switches, Sensors, and Programmable Safety Devices), by Product (ESD, F&G, and HIPPS), by Application (Chemical, Oil & Gas, and Power Generation), and by Geography - Global Trends & Forecasts to 2014 - 2020**

<https://marketpublishers.com/r/SCEBDC1874DEN.html>

Date: April 2015

Pages: 182

Price: US\$ 5,650.00 (Single User License)

ID: SCEBDC1874DEN

## **Abstracts**

Safety can be defined as 'avoidance of unprecedented risk'. Managing and preparing the industrial plant with the right systems for optimal operational efficiency and safety is a complex task. A safety instrumented system (SIS) comprises sensors, logic solvers and actuators for the purpose of taking a process to a safe state when normal safety limits are exceeded, or safe operating conditions are violated.

The different types of SIS which have been considered in this report include emergency shutdown systems, fire and gas monitoring and control, high integrity pressure protection systems, burner management systems, and turbo machinery and control. SIS has an application in a wide range of industries including chemical, refining, oil & gas, pharmaceutical & biotech, paper & pulp, metal and mining, water & wastewater, food & beverage manufacturing, and power generation. The components used for SIS are safety switches, emergency stop devices, safety controllers/modules/relays, safety sensors, and programmable safety devices, among others. This report covers the SIS market in regions including North America, Europe, Asia-Pacific, and the Rest of the World (RoW).

The major drivers identified for the growth of the SIS market are safety regulations imposed by governing authorities, rise in automotive manufacturing across the globe, and labor unions insisting on adequate safety measures. There are also some

factors which act as a restraint on the growth of the market, such as high cost of safety instrumented system products, lack of awareness, and complexity of standards such as IEC 61508 and ISO 26262. However, overall, the market is expected to witness prominent growth during the forecast period, primarily due to the increasing adoption of SIS for power generation applications.

The report also discusses the future road-map of the global SIS market with respect to upcoming technologies, potential markets, and applications for the same. The key players included in the report are ABB Ltd. (Switzerland), Emerson Process Management (U.S.), General Electric Company (U.S.), HIMA Paul Hildebrandt GmbH (Germany), Honeywell International, Inc. (U.S.), Schneider Electric SE (France), Rockwell Automation (U.S.), Siemens AG (Germany), Yokogawa Electric Corporation (Japan), OMRON Corporation (Japan), Johnson Controls, Inc. (U.S.), Tyco International Plc. (Switzerland), and others.

**Market by Product:** The market by product type includes emergency shutdown systems, fire and gas monitoring and control, high integrity pressure protection systems, burner management systems, and turbo machinery and control.

**Market by Components:** The market has been segmented based on components into safety switches, emergency stop devices, safety controllers/modules/relays, safety sensors and programmable safety devices, and others.

**Market by Application:** The SIS market is mainly categorized into applications such as chemical, refining, oil & gas, pharmaceutical & biotech, paper & pulp, metal and mining, water & wastewater, food & beverage manufacturing, and power generation.

**Market by Geography:** The market by geography is segmented into four different regions, namely, North America, Europe, APAC, and the Rest of the World.

The report also includes the market dynamics such as drivers, restraints, and opportunities. Apart from the market segmentation, the report also includes critical market data and qualitative information for each product type, along with the quantitative analysis such as Porter's Five Forces analysis and the value chain analysis.

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