

# **Human Machine Interface Market by Offering (Basic, Advanced Panel-based, & Advanced PC-based HMI), Software (On-premises, Cloud-based), Screen Size (1-9, 9-17, More than 17), Configuration (Standalone, Embedded), Industry - Global Forecast to 2028**

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## **Abstracts**

The HMI market is estimated to be worth USD 5.2 billion in 2023 and is projected to reach USD 7.7 billion by 2028 at a CAGR of 8.2% during the forecast period. The HMI market is experiencing robust growth, primarily driven by surging adoption of industry 4.0 in manufacturing industries and government initiatives that are promoting adoption of operational technologies. Industry 4.0 emphasizes smart factories and interconnected systems that rely on advanced HMI solutions to facilitate real-time monitoring, data analysis, and efficient control of machinery and production processes. Additionally, government initiatives aimed at promoting the adoption of operational technologies in manufacturing sectors have further accelerated the HMI market's growth. These initiatives often include incentives and funding to encourage the implementation of advanced HMI systems, aligning with broader efforts to enhance productivity, product quality, and competitiveness in the global market.

“Discrete industries to hold the largest share of HMI market in 2022.”

Discrete industries such as automobile, semiconductor & electronics, and aerospace require precise control, rapid changeovers, and advanced customization, making them particularly reliant on adaptable and user-friendly HMI solutions. The fast-paced nature of discrete manufacturing necessitates cutting-edge HMI technologies that offer real-time data visualization, intuitive interfaces, and seamless integration with other automation systems. These features enhance operational efficiency, maintain product quality, and ensure that these industries can meet the dynamic consumer demands for

innovative and high-quality products. As a result, the unique requirements and the competitive landscape of discrete manufacturing sectors make them the largest and essential consumers of HMI solutions, ultimately driving their prominence in the market.

“Oil & Gas industry to hold the largest share of HMI market for process industries in 2022.”

The oil and gas industry involves complex, high-risk processes, such as drilling, refining, and distribution, where precise monitoring and control are imperative for safety, efficiency, and compliance. HMI systems are essential in facilitating real-time data visualization, control, and decision-making in this challenging environment. Moreover, the sector is increasingly integrating automation and digitalization to optimize operations and reduce costs, driving the demand for advanced HMI solutions. With the adoption of IoT, data analytics, and remote monitoring, HMI technologies are crucial for achieving operational excellence in the oil and gas industry, making it a prominent player in the HMI market.

“North America to hold the largest market share of HMI market in 2022.”

North America is a major hub for technological innovations, as well as an early adopter of new technologies. These sectors rely heavily on advanced HMI solutions to improve operational efficiency and maintain a competitive edge. Moreover, North America has a mature and well-established infrastructure that readily adopts emerging technologies, including HMI systems, which are integral to Industry 4.0 initiatives and smart manufacturing. Additionally, the presence of leading HMI solution providers and a strong emphasis on research and development further drives the market's growth. The region has witnessed a marginal shift toward automated production and continuous R&D investments by manufacturers to drive innovation in their manufacturing processes. Moreover, the industrial, automotive, power, oil & gas, pharmaceutical, and healthcare sectors are integrating HMI with data analytics to improve performance and reduce overall operational costs, which is likely to further lead to the growth of the HMI market in North America.

The break-up of the profiles of primary participants:

By Company Type – Tier 1 – 65%, Tier 2 – 20%, and Tier 3 – 15%

By Designation – C-level Executives – 57%, Directors – 27%, and Others – 16%

By Region – North America - 24%, Europe – 24%, Asia Pacific – 46%, and Rest of the World – 6%

Major players in the HMI market are Rockwell Automation (US), Siemens (Germany), Schneider Electric (France), ABB (Switzerland), and Honeywell International Inc. (US).

### Research Coverage

The report segments the HMI market by offering, configuration, end-user industry, and region. The report also comprehensively reviews drivers, restraints, opportunities, and challenges influencing market growth. The report also covers qualitative aspects in addition to the quantitative aspects of the market.

### Reasons to buy the report:

The report will help the market leaders/new entrants with information on the closest approximate revenues for the overall HMI market and related segments. This report will help stakeholders understand the competitive landscape and gain more insights to strengthen their position in the market and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, opportunities, and challenges.

### The report provides insights on the following pointers:

Analysis of key drivers (Rising adoption of industrial automation in process and discrete industries, Growing focus on real-time data analysis and predictive maintenance, Government initiatives to promote adoption of operational technologies, and Surging adoption of industry 4.0 in manufacturing industries is driving the market), restraints (High cost associated with installation and maintenance, Need for regular maintenance and frequent software updates, and Shortage of skilled and experienced workforce are hindering the growth of the market), opportunities (Surging demand for safety compliance automation systems in manufacturing industries, Increasing adoption of IIoT and cloud computing across industries, and Rapid growth and increasing investments in renewable energy sector), and challenges (Absence of standardization in industrial communication protocols and interfaces and Susceptibility of cloud-HMI systems to cyberattacks are resulting as a risk for HMI systems) influencing the growth of the HMI market.

**Product Development/Innovation:** Detailed insights on upcoming technologies, research and development activities, and new product launches in the HMI market.

**Market Development:** Comprehensive information about lucrative markets – the report analyses the HMI market across varied regions.

**Market Diversification:** Exhaustive information about new products, untapped geographies, recent developments, and investments in the HMI market.

**Competitive Assessment:** In-depth assessment of market shares, growth strategies, and product offerings of leading players like Rockwell Automation (US), Siemens (Germany), Schneider Electric (France), ABB (Switzerland), and Honeywell International Inc. (US).

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\*Details on Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

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