INTELLIGENT FLOW METER MARKET

By Type (Coriolis, Electromagnetic, Vortex, Ultrasonic and Others), Technology (Profibus, HART & others), Application (Water & Wastewater, Oil & Gas, Chemicals & Others) and Geography

TRENDS & FORECASTS TO 2020
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INTRODUCTION

1.1 OBJECTIVES OF THE STUDY

- To define and measure the intelligent flow meter market with respect to the types of flow meters, applications, and geography
- To analyze the market structure by identifying the various sub-segments of the intelligent flow meter market
- To project the market size of the intelligent flow meters in terms of value and its various submarkets with respect to the four main regions, namely North America, Europe, Asia-Pacific, and Rest of the World
- To identify the major market trends and the factors driving or inhibiting the growth of the intelligent flow meter market and its various submarkets
- To analyze Porter's five forces in detail along with the value chain analysis of the intelligent flow meter market
- To strategically analyze each submarket with respect to the individual growth trends and contribution to the overall intelligent flow meter market
- To analyze the opportunities in the market for the stakeholders by identifying the high-growth segments of the intelligent flow meter market
- To strategically profile the key players of the intelligent flow meter market and comprehensively analyze their market shares and core competencies in each segment
- To track and analyze the competitive developments such as alliances, joint ventures, and mergers and acquisitions in the global intelligent flow meter market

1.2 MARKET DEFINITION

The intelligent flow meters are used to quantify liquid and gas fluid movements. These flow meters are positioned to gather information from the areas of interest. They are designed to ensure low cost, easy deployment, increased flexibility, and embedded intelligence for cooperatively delivering value added services.

1.3 MARKET SCOPE

The report classifies the intelligent flow meter market into four different segments, such as the types of flow meters used, technologies, applications, and geography. It entails the analyses and forecasts related to the intelligent flow meter market.

Based on the flow meters used, the intelligent flow meter market has been classified into coriolis, differential pressures, electromagnetics, vortex, and ultrasound flow meters. Based on the technologies, the market has been classified into Profibus, Modbus, Fieldbus, and HART, among others. Whereas, based on the applications, the market has been segmented into chemical, mining, food and beverages, pharmaceuticals, power and energy, oil and gas, and water and wastewater, among others; and based on the geography, it has been segmented into North America, Europe, APAC, and RoW.
**FIGURE 1**  MARKET SCOPE

**Intelligent Flow Meter Market Segmentation**

<table>
<thead>
<tr>
<th>Type</th>
<th>Technology</th>
<th>Application</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coriolis</td>
<td>Profibus</td>
<td>Oil &amp; Gas</td>
<td>North America</td>
</tr>
<tr>
<td>Thermal</td>
<td>Modbus</td>
<td>Water &amp; Wastewater</td>
<td>Europe</td>
</tr>
<tr>
<td>Electromagnetic</td>
<td>3-20mA HART</td>
<td>Food &amp; Beverage</td>
<td>APAC</td>
</tr>
<tr>
<td>Vortex</td>
<td></td>
<td>Power Generation</td>
<td>Rest of the World</td>
</tr>
<tr>
<td>Ultrasound</td>
<td></td>
<td>Chemical &amp; Petrochemical</td>
<td></td>
</tr>
<tr>
<td>Multiphase</td>
<td></td>
<td>Metal &amp; Mining</td>
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<tr>
<td></td>
<td></td>
<td>Paper &amp; Pulp</td>
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<td></td>
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<td>Pharmaceutical</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

Source: Expert Interviews, Company Websites, Secondary Literature, and MarketsandMarkets Analysis
2 RESEARCH DESIGN

This research incorporates the usage of the extensive secondary sources, directories, and databases such as Hoovers, BusinessWeek, OneSource, and Factiva to identify and collect information useful for the extensive technical and commercial study of the intelligent flow meter market. The primary sources, that are, experts from core and related industries, preferred suppliers, and service providers have been interviewed to obtain and verify the critical qualitative and quantitative information as well as to assess the future prospects. The key players in the intelligent flow meter market have been identified through the secondary research and their revenue has been determined through the primary and secondary researches. It includes the study of the annual reports of top market players and interviews with the key opinion leaders, such as CEOs, directors, and marketing personnel. The following illustrative figure shows the market research methodology applied in making this report on the global intelligent flow meter market.

FIGURE 2 GLOBAL INTELLIGENT FLOW METER MARKET: RESEARCH DESIGN

In the secondary research process, various secondary sources have been referred to for identifying and collecting information important for this study. The secondary sources include annual reports, press releases, and investor presentations of companies, white papers, and certified publications, articles from recognized authors, directories, and databases.

The secondary research has mainly been used to obtain the key information about the industry’s supply chain, market’s monetary chain, total pool of key players, market classification according to the industry...
Intelligent Flow Meter Market - Trends & Forecasts to 2020

Intelligent Flow Meter Market - Trends & Forecasts to 2020

In the primary research process, various primary sources from both, the supply and demand sides have been interviewed to obtain the qualitative and quantitative information important for this report. The primary sources from the supply side include the industry experts, such as CEOs, vice presidents, marketing directors, technology and innovation directors, and related key executives from various key companies and organizations operating in the intelligent flow meter market.

After the complete market engineering (which includes calculations for market statistics, market breakdown, market size estimations, market forecasting, and data triangulation), an extensive primary research has been conducted to gather information and to verify and validate the critical numbers arrived at.

Primary research has also been conducted to identify the segmentation types, industry trends, key players, competitive landscape of the intelligent flow meter products supplied by different market players, and the key market dynamics such as the drivers, restraints, opportunities, industry trends, and key player strategies; Porter’s five forces have also been identified and analyzed. In the complete market engineering process, both the top-down and bottom-up approaches have been extensively used along with several data triangulation methods to perform the market estimation and market forecasting for the overall market segments and sub-segments listed in this report. Extensive qualitative and quantitative analysis have been performed on the complete market engineering process to list the key information/insights throughout the report.

2.1 DEMAND-SIDE ANALYSIS

The following factors are considered for analyzing the demand side of intelligent flow meter market.

- Oil and gas industry: Oil and gas is one of the prominent applications for the intelligent flow meter market. Data sources have been used to understand the projections of the industry and their impact on the global demand of the intelligent flow meter market.
- Increasing demand for the flow meters: Data sources have been used to understand the increasing demand across the globe with respect to the application areas and its impact on the global spending and demand for the intelligent flow meter market.

Increasing demand and supply of oil since the last three years. The growing oil and gas industry as well as the penetration of technological advancements have created a direct impact on the demand of the intelligent flow meter market; whereas, the increasing demand in various application areas such as water and wastewater, food and beverages, chemicals, energy and power, metals, mining, and pharmaceuticals have created a positive impact on the demand of the intelligent flow meters.
The demand for oil has been increasing rapidly over the period. As shown in the graph above, the demand for oil in the third quarter of 2013 was XX mb/d, which increased to XX mb/d in the third quarter of 2014; this positive displacement has been witnessed in the supply side of oil as well.

2.1.1 THE GROWING FLOW METER MARKET FROM 2008 TO 2013

The flow meter market includes both the types of meters, that is, traditional as well intelligent flow meters. The traditional flow meters have had a large installed base as they were introduced into the industry many years ago. The traditional flow meters have been extensively used for liquid, gas, and steam flow measurements. The differential pressure and turbine flow meters, which fall under the traditional flow meters, were the first to receive approvals from the American Gas Association (AGA) for use in the custody transfer of natural gas. On the other hand, the coriolis and ultrasonic flow meters, which have also received approvals from American Gas Association (AGA), are already entrenched in the custody transfer market at this stage.
The above figure describes the overall market size of the flow meter industry. The global market value of the flow meters was valued at $XX million in 2008, and it has grown to $XX million in 2013. This growth is heralded by the advent use of the new generation intelligent flow meters across the various industries.

Source: Industry Journals, Expert Interviews, Secondary Research, and MarketsandMarkets Analysis
Flow meters are used for flow measurement, which is a process of determining the quantifiable amount of bulk fluid movement. Flow measurement involves both, liquid as well as gaseous fluids. By the end of the 50th century, the flow meters were widely used in the industrial applications. Currently, they are used in more than 100 types of industrial as well as domestic applications. The flow meter technology has been developing since the past three decades, and it has been integrated with various meters, such as speed meters, volume meters, momentum meters, electromagnetic meters, and ultrasonic flow meters.

The functionality of the intelligent flow meters is similar to that of the traditional and new generation flow meters. In addition to its basic functionality of measuring flow, these flow meters are equipped with communication protocol chips. With the help of the embedded communication chips, these flow meters can communicate with the control station. This will enable the end-user to control, measure, and trouble shoot reading from distance and no frequent periodic checks will be required at the plant site.

This report covers all the major traditional as well as new generation flow meters. This includes differential pressure, variable area, turbine, vortex, thermal, electromagnetic, coriolis, and ultrasonic flow meters. The global intelligent flow meter market is valued at $XX million in 2014 and is expected to reach $XX million by 2020, growing at a CAGR of XX% calculated between 2014 and 2020. The report segments the intelligent flow meter market on the basis of the different flow meter technologies, applications, communication technologies, and geographies. It also forecasts the current as well as the future revenue.

The application chapter segments the global intelligent flow meter market based on different application sectors, such as water and wastewater, oil and gas, chemical and petrochemical, food and beverage, pulp and paper, metal and mining, and pharmaceuticals. Currently in 2014, the water and wastewater application accounts for the largest share; however, in the coming future, the oil and gas, and chemical and petrochemical industry related applications are expected to surpass the water and wastewater applications. This is due to the advent use of the new generation flow meters in the oil and gas and chemical industries. In addition to this, the total cost of ownership of the new generation flow meter is high as compared to that of the traditional flow meters.

Furthermore, it contains revenue forecast and analyses trends in the market. The geographic analysis contains the in-depth classification for North America, Europe, and APAC, which contains the major countries covering the market, The Middle East and Latin America have been classified under RoW. Each of these geographies has further been split by the major countries existing in this market. The sections and the sub-segments in the report contain the drivers, restraints, opportunities, current market trends, and the technologies expected to revolutionize the intelligent flow meter technology.

The major companies operating in the silicon photonics domain are Emerson Electric Co. (U.S.), Endress+Hauser AG (Germany), ABB Ltd. (U.S.), and Krohne Messtechnik GmbH (Germany), among others.
TABLE 1  
INTELLIGENT FLOW METER MARKET SIZE, BY TYPE, 2013-2020 ($MILLION)

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<td>XX</td>
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<tr>
<td>Ultrasonic</td>
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<td>Vortex</td>
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<tr>
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</table>

Source: Secondary Literature, Expert Interviews, and MarketsandMarkets Analysis

The global intelligent flow meter market is valued at $XX million in 2014 and is expected to reach $XX million by 2020, growing at a CAGR of XX% calculated between 2014 and 2020. This growth is expected to be heralded by the new generation flow meters. This includes the magnetic, coriolis, ultrasonic, thermal, and multiphase flow meters. The coriolis and ultrasonic flow meters are expected to witness high growth rate of XX% and XX% respectively. The new generation flow meters are designed to provide accurate and precise reading with minimum error rate. Currently in 2014, the magnetic flow meters account for the highest market share. This market is valued at a market size worth $XX million in 2014 and is expected to reach $XX million by 2020. Coriolis follows second with a market size of $XX million in 2013; this market is estimated to grow at a CAGR of XX% during the forecast period. The ultrasonic flow meter is expected to grow at a CAGR of XX% during the forecast period. The advent use of coriolis and ultrasonic flow meters in the oil & gas and chemical & petrochemical industries is boosting the growth of the coriolis and ultrasonic flow meters globally. The traditional flow meters, such as variable area, differential pressure, and turbine flow meters, are expected to witness lower growth rates since these flow meters are expected to be replaced by the new generation flow meter technologies.
FIGURE 5  THE OIL & GAS INDUSTRY IS EXPECTED TO GROW AT THE HIGHEST CAGR IN THE COMING FUTURE

Source: Industry Experts, Secondary Literatures, Annual Reports, and MarketsandMarkets Analysis
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