

# **Industrial Automation Oil & Gas Market With COVID-19 Impact, by Component (Control Valves, HMI, Process Analyzers, Intelligent Pigging, Vibration Monitoring), Solutions (SCADA, PLC, DCS, MES, PAM), Stream and Region - Global Forecast to 2025**

<https://marketpublishers.com/r/I9C665A9966EN.html>

Date: January 2021

Pages: 221

Price: US\$ 4,950.00 (Single User License)

ID: I9C665A9966EN

## **Abstracts**

The industrial automation oil & gas market is projected to grow from USD 14.9 billion in 2020 to USD 18.7 billion by 2025; it is expected to grow at a CAGR of 4.7% from 2020 to 2025. The growth of the industrial automation oil & gas market is driven by IIoT adding value in the industrial automation and optimum and effective exploration of aging reservoirs.

COVID-19 has emerged as a global pandemic that has spread across 215 countries worldwide and disrupted various industries around the world. The prominent players across industries have been affected by this pandemic. The foreseeable decline in the growth of industries may have a considerable direct impact on the industrial automation oil & gas market.

“The control valves in component segment is expected to grow at the highest CAGR during the forecast period.”

The control valves market is expected to grow at highest CAGR during the forecast period. Control valves offer the benefit of remote monitoring and regulating the flow of a process. The increasing complexity of manufacturing and distribution units in process industries are contributing toward a steady rise in their demand. The goal of control valves is to maintain product quality, improve plant efficiency, and automatically regulate the flow rate.

“The downstream is projected to account for the largest share of the industrial automation oil & gas market during the forecast period.”

Downstream held the largest market share in the industrial automation for oil & gas market. The oil & gas operations that are undertaken after the crude oil is transported

by the midstream process and before the product reaches its point of sale are considered under downstream process. There is an increasing adoption of the solutions such as SCADA and PAM in downstream processes. Also, field instruments and process analyzers are widely used in downstream processes, and thus gives impetus to downstream in the market. The increasing adoption of industrial automation, SCADA, and IIoT, the trend has shifted toward condition-based predictive maintenance strategies giving impetus to downstream market.

“APAC is projected to grow at a highest CAGR during the forecast period.”

APAC and North America are the leaders in terms of the adoption of IoT, and the industrial automation oil & gas market in these regions is expected to grow significantly during the forecast period. In APAC, the deployment of industrial automation in oil & gas industry is expected to increase rapidly during the forecast period in China, India, and Malaysia. The market in APAC is growing rapidly owing to the large-scale advancements and technological innovations in the oil & gas industry; this necessitates the use of industrial automation oil & gas solutions and components. China was the epicenter of the COVID-19 outbreak, and the resultant shutdowns and supply chain disruptions dealt a major blow to the economic activities in APAC. Various countries in the region have undertaken economic reforms to revive their economy; this is expected to give an impetus to the growth of the industrial automation oil & gas market in APAC.

Break-up of the profiles of primary participants:

- By Company Type – Tier 1 – 45%, Tier 2 – 30%, and Tier 3 – 25%
- By Designation – C-level – 40%, Director-level – 35%, and Manager-level – 25%
- By Region – North America - 30%, Europe – 25%, APAC – 35%, and RoW – 10%

The key players in the industrial automation oil & gas market include ABB Ltd. (Switzerland), Endress+Hauser AG (Switzerland), Emerson Electric Co. (US), General Electric (US), Rockwell Automation, Inc. (US), Schneider Electric SE (France), Siemens AG (Germany), Mitsubishi Electric Corp. (Japan), Honeywell International Inc. (US), and Yokogawa Electric Corp. (Japan).

The industrial automation oil & gas market has been segmented into component, solutions, stream, and region. Based on component, the market has been segmented into industrial robots, control valves, field instruments, HMI, industrial PC, process analyzers, intelligent pigging, and vibration monitoring. Based on solutions, the industrial automation oil & gas market has been segmented into SCADA, PLC, DCS, MES, Functional Safety, and PAM. Based on stream, the market has been segmented into upstream, midstream, and downstream. The industrial automation oil & gas market has been studied for North America, Europe, Asia Pacific (APAC), and the Rest of the

World (RoW).

Reasons to buy the report:

- Illustrative segmentation, analysis, and forecast of the market based on component, solutions, stream, and region have been conducted to give an overall view of the industrial automation oil & gas market.
- The key drivers, restraints, opportunities, and challenges pertaining to the industrial automation oil & gas market have been detailed in this report.
- Detailed information regarding the COVID-19 impact on the industrial automation oil & gas market has been provided in the report.
- The report includes a detailed competitive landscape of the market, along with key players, as well as in-depth analysis of their revenues

## Contents

### 1 INTRODUCTION

#### 1.1 OBJECTIVES OF THE STUDY

#### 1.2 DEFINITION

#### 1.3 STUDY SCOPE

##### 1.3.1 MARKETS COVERED

#### FIGURE 1 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET SEGMENTATION

#### 1.4 INCLUSIONS/EXCLUSIONS

#### 1.5 YEARS CONSIDERED FOR STUDY

#### 1.6 CURRENCY

#### 1.7 LIMITATIONS

#### 1.8 STAKEHOLDERS

#### 1.9 SUMMARY OF CHANGES

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH DATA

#### FIGURE 2 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET: RESEARCH DESIGN

##### 2.1.1 SECONDARY AND PRIMARY RESEARCH

##### 2.1.2 SECONDARY DATA

###### 2.1.2.1 List of key secondary sources

###### 2.1.2.2 Key data from secondary sources

##### 2.1.3 PRIMARY DATA

###### 2.1.3.1 Primary interviews with experts

###### 2.1.3.2 Primary sources

###### 2.1.3.3 Breakdown of primaries

#### 2.2 MARKET SIZE ESTIMATION

##### 2.2.1 BOTTOM-UP APPROACH

###### 2.2.1.1 Approach for arriving at market size using bottom-up analysis (demand side)

#### FIGURE 3 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET: BOTTOM-UP APPROACH

##### 2.2.2 TOP-DOWN APPROACH

###### 2.2.2.1 Approach for arriving at market size using top-down analysis (supply side)

#### FIGURE 4 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET: TOP-DOWN APPROACH

#### FIGURE 5 METHODOLOGY FOR ESTIMATING SIZE OF INDUSTRIAL AUTOMATION

FOR OIL & GAS MARKET THROUGH SUPPLY-SIDE ANALYSIS

2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 6 DATA TRIANGULATION

2.4 RESEARCH ASSUMPTIONS

FIGURE 7 ASSUMPTIONS FOR RESEARCH STUDY

### **3 EXECUTIVE SUMMARY**

FIGURE 8 COVID-19 IMPACT ANALYSIS FOR INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET

3.1 REALISTIC SCENARIO

3.2 PESSIMISTIC SCENARIO

3.3 OPTIMISTIC SCENARIO

FIGURE 9 FIELD INSTRUMENTS SEGMENT TO ACCOUNT FOR LARGEST SIZE OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN 2020

FIGURE 10 PAM SEGMENT OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

FIGURE 11 DOWNSTREAM SEGMENT TO ACCOUNT FOR LARGEST SIZE OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET FROM 2020 TO 2025

FIGURE 12 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN APAC TO GROW HIGHEST CAGR FROM 2020 TO 2025

### **4 PREMIUM INSIGHTS**

4.1 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET

FIGURE 13 ATTRACTIVE GROWTH OPPORTUNITIES FOR PLAYERS IN INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET

4.2 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY COMPONENT

FIGURE 14 CONTROL VALVES SEGMENT OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

4.3 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY SOLUTION

FIGURE 15 PAM SEGMENT OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

4.4 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY STREAM

FIGURE 16 DOWNSTREAM SEGMENT TO ACCOUNT FOR LARGEST SIZE OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET FROM 2020 TO 2025

4.5 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY REGION

FIGURE 17 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN APAC TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

## 5 MARKET OVERVIEW

### 5.1 INTRODUCTION

### 5.2 MARKET DYNAMICS

FIGURE 18 IMPLEMENTATION OF IIOT AND NEED FOR OPTIMUM AND EFFECTIVE EXPLORATION OF AGING RESERVOIRS TO DRIVE INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET

#### 5.2.1 DRIVERS

5.2.1.1 Implementation of IIoT

5.2.1.2 Need for optimum and effective exploration of aging reservoirs

5.2.1.3 Fiscal measures to boost industrial automation in oil & gas industry due to COVID-19

FIGURE 19 PACKAGE BREAKUP OF CARES ACT

FIGURE 20 DRIVERS FOR INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET AND THEIR IMPACT

#### 5.2.2 RESTRAINTS

5.2.2.1 Lack of skilled professionals

5.2.2.2 High infrastructure costs

FIGURE 21 RESTRAINTS FOR INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET AND THEIR IMPACT

#### 5.2.3 OPPORTUNITIES

5.2.3.1 Industry 4.0 paving new opportunities for automation in oil & gas industry

FIGURE 22 OPPORTUNITIES FOR INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET AND THEIR IMPACT

#### 5.2.4 CHALLENGES

5.2.4.1 Lockdowns and social distancing may restrict commercial trade growth in coming months

5.2.4.2 Issues related to data integration and upgradation of systems

FIGURE 23 CHALLENGES FOR INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET AND THEIR IMPACT

### 5.3 VALUE CHAIN ANALYSIS

FIGURE 24 VALUE CHAIN ANALYSIS: INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET

### 5.4 ECOSYSTEM

FIGURE 25 INDUSTRIAL AUTOMATION: ECOSYSTEM

TABLE 1 COMPANIES INVOLVED IN INDUSTRIAL AUTOMATION FOR OIL & GAS ECOSYSTEM

### 5.5 PORTER'S FIVE FORCE ANALYSIS

## TABLE 2 IMPACT OF EACH FORCE ON INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET

### 5.6 USE CASES

5.6.1 USE OF LIQUID DENSITY METER BY A FRENCH ELECTRICITY COMPANY

5.6.2 IDENTIFICATION OF POTENTIAL RISKS TO WORKERS USING FTIR TOXIC GAS ANALYZER

5.6.3 IMPROVING SAFETY IN OPERATIONS USING INDUSTRIAL ROBOTS

5.6.4 USE OF SCADA AND HUMAN-MACHINE INTERFACES TO CREATE OPERATIONS CONTROL CENTER

5.6.5 REDUCTION IN DOWNTIME USING PLC AND PAM

5.6.6 REDUCTION IN OPERATIONAL COSTS USING PRESSURE TRANSMITTERS

### 5.7 TECHNOLOGY TRENDS

5.7.1 AI AND IOT

5.7.2 IIOT CONNECTIVITY

5.7.3 CLOUD PLATFORM

5.7.4 PREDICTIVE MAINTENANCE

5.7.5 DIGITAL TWIN

5.7.6 COMMUNICATION PROTOCOLS

5.7.7 SPATIAL COMPUTING

5.7.8 TRANSPARENT DISPLAYS

5.7.9 BIOACOUSTIC SENSING

5.7.10 MACHINE LEARNING

5.7.11 GESTURE CONTROL DEVICES

5.7.12 FLEXIBLE DISPLAYS

5.7.13 AUGMENTED REALITY

5.7.14 SENSOR FUSION

5.7.15 VIRTUAL REALITY

### 5.8 PRICING ANALYSIS

5.8.1 PROCESS ANALYZERS

## TABLE 3 PRICE RANGE OF PROCESS ANALYZERS

## FIGURE 26 SERVICE COST RANGE OF PROCESS ANALYZERS

5.8.2 INTELLIGENT PIGGING

## TABLE 4 PRICE RANGE OF LOW-RESOLUTION AND HIGH-RESOLUTION INTELLIGENT PIGGING

5.8.3 FIELD INSTRUMENTS

## TABLE 5 PRICE RANGE OF FIELD INSTRUMENTS

5.8.4 INDUSTRIAL SAFETY COMPONENTS

## TABLE 6 TENTATIVE AVERAGE SELLING PRICES OF COMPONENTS

5.8.5 INDUSTRIAL ROBOTS



**TABLE 7 PRICE RANGE OF INDUSTRIAL ROBOTS****5.9 TRADE ANALYSIS**

TABLE 8 GAS ANALYZERS: US IMPORT DATA, 2015–2019 (USD MILLION)

TABLE 9 GAS ANALYZERS: US EXPORT DATA, 2015–2019 (USD MILLION)

TABLE 10 INDUSTRIAL ROBOTS: GLOBAL IMPORTS DATA, 2015–2019 (USD MILLION)

TABLE 11 INDUSTRIAL ROBOTS: GLOBAL EXPORTS DATA, 2019 (USD MILLION)

**5.10 PATENTS ANALYSIS**

TABLE 12 PATENTS FROM 2015 TO 2019

**5.11 MARKET REGULATIONS****6 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY COMPONENT****6.1 INTRODUCTION**

FIGURE 27 INDUSTRIAL AUTOMATION FOR OIL &amp; GAS MARKET, BY COMPONENT

TABLE 13 INDUSTRIAL AUTOMATION FOR OIL &amp; GAS MARKET, BY COMPONENT, 2016–2019 (USD MILLION)

TABLE 14 INDUSTRIAL AUTOMATION FOR OIL &amp; GAS MARKET, BY COMPONENT, 2020–2025 (USD MILLION)

**6.2 INDUSTRIAL ROBOTS****6.2.1 TRADITIONAL INDUSTRIAL ROBOTS****6.2.1.1 Articulated robots**

6.2.1.1.1 Increased payload capacity and reliability to fuel demand for articulated robots

**6.2.1.2 Cartesian robots**

6.2.1.2.1 Simple controls of Cartesian robots lead to their increased global demand

**6.2.1.3 Selective Compliance Assembly Robot Arms (SCARA)**

6.2.1.3.1 Best price-to-performance ratio offered by SCARA contributing to its increased adoption in various applications

**6.2.1.4 Parallel robots**

6.2.1.4.1 Increased use of parallel robots in high-speed applications

**6.2.1.5 Others****6.2.2 COLLABORATIVE INDUSTRIAL ROBOTS**

6.2.2.1 Safety features, ease of use, and affordability of collaborative industrial robots lead to their increased global demand

TABLE 15 INDUSTRIAL ROBOTS FOR OIL &amp; GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 16 INDUSTRIAL ROBOTS FOR OIL &amp; GAS MARKET, BY REGION, 2020–2025



(USD MILLION)

## 6.3 CONTROL VALVES

6.3.1 SURGED USE OF CONTROL VALVES IN OIL & GAS PLANTS FOR  
REGULATION OF OIL FLOW RATE

TABLE 17 ADVANTAGES AND DISADVANTAGES OF DIFFERENT TYPES OF  
CONTROL VALVES

TABLE 18 CONTROL VALVES FOR OIL & GAS MARKET, BY MATERIAL, 2016–2019  
(USD MILLION)

TABLE 19 CONTROL VALVES FOR OIL & GAS MARKET, BY MATERIAL, 2020–2025  
(USD MILLION)

TABLE 20 CONTROL VALVES FOR OIL & GAS MARKET, BY COMPONENT,  
2016–2019 (USD MILLION)

TABLE 21 CONTROL VALVES FOR OIL & GAS MARKET, BY COMPONENT,  
2020–2025 (USD MILLION)

TABLE 22 CONTROL VALVE ACTUATORS FOR OIL & GAS MARKET, BY TYPE,  
2016–2019 (USD MILLION)

TABLE 23 CONTROL VALVE ACTUATORS FOR OIL & GAS MARKET, BY TYPE,  
2020–2025 (USD MILLION)

TABLE 24 CONTROL VALVES FOR OIL & GAS MARKET, BY TYPE, 2016–2019 (USD  
MILLION)

TABLE 25 CONTROL VALVES FOR OIL & GAS MARKET, BY TYPE, 2020–2025 (USD  
MILLION)

TABLE 26 ROTARY CONTROL VALVES FOR OIL & GAS MARKET, BY PRODUCT  
TYPE, 2016–2019 (USD MILLION)

TABLE 27 ROTARY CONTROL VALVES FOR OIL & GAS MARKET, BY PRODUCT  
TYPE, 2020–2025 (USD MILLION)

TABLE 28 LINEAR CONTROL VALVES FOR OIL & GAS MARKET, BY PRODUCT  
TYPE, 2016–2019 (USD MILLION)

TABLE 29 LINEAR CONTROL VALVES FOR OIL & GAS MARKET, BY PRODUCT  
TYPE, 2020–2025 (USD MILLION)

TABLE 30 CONTROL VALVES FOR OIL & GAS MARKET, BY SIZE, 2016–2019 (USD  
MILLION)

TABLE 31 CONTROL VALVES FOR OIL & GAS MARKET, BY SIZE, 2020–2025 (USD  
MILLION)

TABLE 32 CONTROL VALVES FOR OIL & GAS MARKET, BY REGION, 2016–2019  
(USD MILLION)

TABLE 33 CONTROL VALVES FOR OIL & GAS MARKET, BY REGION, 2020–2025  
(USD MILLION)

## 6.4 FIELD INSTRUMENTS

#### 6.4.1 FIELD INSTRUMENTS SEGMENT TO ACCOUNT FOR LARGEST SIZE OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET FROM 2020 TO 2025

TABLE 34 FIELD INSTRUMENTS FOR OIL & GAS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 35 FIELD INSTRUMENTS FOR OIL & GAS MARKET, BY TYPE, 2020–2025 (USD MILLION)

TABLE 36 FIELD INSTRUMENTS FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 37 FIELD INSTRUMENTS FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

#### 6.4.2 TRANSMITTERS

6.4.2.1 Quick response time and precise measurement capability of transmitters lead to their increased adoption in oil & gas plants

TABLE 38 TYPES OF TRANSMITTERS USED IN FIELD INSTRUMENTS

##### 6.4.2.2 Pressure transmitters

6.4.2.2.1 Differential pressure transmitters segment to hold largest size of field instrument for oil & gas market in 2025

TABLE 39 PRESSURE TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 40 PRESSURE TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY TYPE, 2020–2025 (USD MILLION)

TABLE 41 PRESSURE TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 42 PRESSURE TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

##### 6.4.2.3 Temperature transmitters

6.4.2.3.1 North America to hold largest size of temperature transmitters field instrument for oil & gas market in 2025

TABLE 43 TEMPERATURE TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 44 TEMPERATURE TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

##### 6.4.2.4 Level transmitters

6.4.2.4.1 Differential pressure/hydrostatic segment to hold largest size of level transmitters field instrument for oil & gas market in 2025

TABLE 45 LEVEL TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY TECHNOLOGY, 2016–2019 (USD MILLION)

TABLE 46 LEVEL TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY TECHNOLOGY, 2020–2025 (USD MILLION)

TABLE 47 LEVEL TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 48 LEVEL TRANSMITTERS FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

#### 6.4.2.5 Vibration level switches

6.4.2.5.1 Vibrating forks segment of vibration level switches field instrument for oil & gas market to grow at high CAGR from 2020 to 2025

TABLE 49 VIBRATION LEVEL SWITCHES FIELD INSTRUMENT FOR OIL & GAS MARKET, BY TECHNOLOGY, 2016–2019 (USD MILLION)

TABLE 50 VIBRATION LEVEL SWITCHES FIELD INSTRUMENT FOR OIL & GAS MARKET, BY TECHNOLOGY, 2020–2025 (USD MILLION)

TABLE 51 VIBRATION LEVEL SWITCHES FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 52 VIBRATION LEVEL SWITCHES FIELD INSTRUMENT FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

### 6.5 HUMAN–MACHINE INTERFACES

6.5.1 SOFTWARE SEGMENT OF HUMAN-MACHINE INTERFACES FOR OIL & GAS MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 53 HUMAN-MACHINE INTERFACES FOR OIL & GAS MARKET, BY TYPE, 2016–2019 (USD MILLION)

TABLE 54 HUMAN-MACHINE INTERFACES FOR OIL & GAS MARKET, BY TYPE, 2020–2025 (USD MILLION)

TABLE 55 HUMAN-MACHINE INTERFACES FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 56 HUMAN-MACHINE INTERFACES FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

### 6.6 INDUSTRIAL PERSONAL COMPUTERS

6.6.1 AVAILABILITY OF OPTION OF EXPANDING MEMORY SLOTS IN INDUSTRIAL PERSONAL COMPUTERS LEADS TO THEIR INCREASED ADOPTION IN OIL & GAS INDUSTRY

TABLE 57 INDUSTRIAL PERSONAL COMPUTERS FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 58 INDUSTRIAL PERSONAL COMPUTERS FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

### 6.7 PROCESS ANALYZERS

#### 6.7.1 LIQUID ANALYZERS

6.7.1.1 Increased global adoption of liquid analyzers to perform chemical analysis of sample liquids in oil & gas plants

TABLE 59 LIQUID PROCESS ANALYZERS FOR OIL & GAS MARKET, BY TYPE,

2016–2019 (USD MILLION)

TABLE 60 LIQUID PROCESS ANALYZERS FOR OIL & GAS MARKET, BY TYPE,  
2020–2025 (USD MILLION)

#### 6.7.2 GAS ANALYZERS

6.7.2.1 Oxygen analyzers segment to lead gas process analyzers for oil & gas market  
from 2020 to 2025

TABLE 61 GAS PROCESS ANALYZERS FOR OIL & GAS MARKET, BY TYPE,  
2016–2019 (USD MILLION)

TABLE 62 GAS PROCESS ANALYZERS FOR OIL & GAS MARKET, BY TYPE,  
2020–2025 (USD MILLION)

TABLE 63 PROCESS ANALYZERS FOR OIL & GAS MARKET, BY TYPE, 2016–2019  
(USD MILLION)

TABLE 64 PROCESS ANALYZERS FOR OIL & GAS MARKET, BY TYPE, 2020–2025  
(USD MILLION)

TABLE 65 PROCESS ANALYZERS FOR OIL & GAS MARKET, BY REGION,  
2016–2019 (USD MILLION)

TABLE 66 PROCESS ANALYZERS FOR OIL & GAS MARKET, BY REGION,  
2020–2025 (USD MILLION)

#### 6.8 INTELLIGENT PIGGING

6.8.1 ADOPTION OF INTELLIGENT PIGGING TO CARRY OUT MAINTENANCE  
OPERATIONS OF OIL & GAS PIPELINES

TABLE 67 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY TECHNOLOGY,  
2016–2019 (USD MILLION)

TABLE 68 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY TECHNOLOGY,  
2020–2025 (USD MILLION)

TABLE 69 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY APPLICATION,  
2016–2019 (USD MILLION)

TABLE 70 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY APPLICATION,  
2020–2025 (USD MILLION)

TABLE 71 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY PIPELINE TYPE,  
2016–2019 (USD MILLION)

TABLE 72 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY PIPELINE TYPE,  
2020–2025 (USD MILLION)

TABLE 73 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION,  
2016–2019 (USD MILLION)

TABLE 74 INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION,  
2020–2025 (USD MILLION)

TABLE 75 LIQUID PIPELINES INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY  
REGION, 2016–2019 (USD MILLION)

TABLE 76 LIQUID PIPELINES INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

TABLE 77 GAS PIPELINES INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 78 GAS PIPELINES INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

#### 6.8.2 TECHNOLOGY

##### 6.8.2.1 Magnetic flux leakage (MFL)

6.8.2.1.1 MFL segment of intelligent pigging for oil & gas market to grow at highest CAGR from 2020 to 2025

TABLE 79 MFL-BASED INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 80 MFL-BASED INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

##### 6.8.2.2 Ultrasonic (UT)

6.8.2.2.1 Ultrasonic testing requires liquid couplants to facilitate travel of signal pulses

TABLE 81 UT-BASED INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 82 UT-BASED INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

##### 6.8.2.3 Caliper

6.8.2.3.1 Caliper technology enables carrying out of cheapest in-line inspection of pipelines

TABLE 83 CALIPER-BASED INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 84 CALIPER-BASED INTELLIGENT PIGGING FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

#### 6.8.3 APPLICATION

##### 6.8.3.1 Metal loss/corrosion detection

6.8.3.1.1 Increased use of MFL technology for corrosion detection in pipelines

TABLE 85 INTELLIGENT PIGGING FOR OIL & GAS MARKET IN METAL LOSS/CORROSION DETECTION APPLICATION, BY REGION, 2016–2019 (USD MILLION)

TABLE 86 INTELLIGENT PIGGING FOR OIL & GAS MARKET IN METAL LOSS/CORROSION DETECTION APPLICATION, BY REGION, 2020–2025 (USD MILLION)

##### 6.8.3.2 Crack detection

6.8.3.2.1 Ultrasonic technology carries out most accurate crack detection in

pipelines

TABLE 87 INTELLIGENT PIGGING FOR OIL & GAS MARKET IN CRACK DETECTION APPLICATION, BY REGION, 2016–2019 (USD MILLION)

TABLE 88 INTELLIGENT PIGGING FOR OIL & GAS MARKET IN CRACK DETECTION APPLICATION, BY REGION, 2020–2025 (USD MILLION)

6.8.3.3 Geometry measurement and bend detection

6.8.3.3.1 Caliper technology carries out cheapest geometry measurement and bend detection in pipelines

TABLE 89 INTELLIGENT PIGGING FOR OIL & GAS MARKET IN GEOMETRY AND BEND DETECTION APPLICATION, BY REGION, 2016–2019 (USD MILLION)

TABLE 90 INTELLIGENT PIGGING FOR OIL & GAS MARKET IN GEOMETRY AND BEND DETECTION APPLICATION, BY REGION, 2020–2025 (USD MILLION)

6.9 VIBRATION MONITORING

6.9.1 SURGED USE OF VIBRATION MONITORING FOR CONDITION MONITORING IN OIL & GAS INDUSTRY

TABLE 91 VIBRATION MONITORING FOR OIL & GAS MARKET, BY OFFERING, 2016–2019 (USD MILLION)

TABLE 92 VIBRATION MONITORING FOR OIL & GAS MARKET, BY OFFERING, 2020–2025 (USD MILLION)

TABLE 93 VIBRATION MONITORING FOR OIL & GAS MARKET, BY MONITORING PROCESS, 2016–2019 (USD MILLION)

TABLE 94 VIBRATION MONITORING FOR OIL & GAS MARKET, BY MONITORING PROCESS, 2020–2025 (USD MILLION)

TABLE 95 VIBRATION MONITORING FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 96 VIBRATION MONITORING FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

6.9.2 HARDWARE TYPE

6.9.2.1 Accelerometers

6.9.2.1.1 Increased deployment of accelerometers in oil & gas plants for vibration monitoring

6.9.2.2 Proximity probes

6.9.2.2.1 Proximity probes monitor movement of rotating equipment and detect defects in plant instruments

6.9.2.3 Velocity sensors

6.9.2.3.1 Ability of velocity sensors to record low-to-medium frequency measurements leads to their increased adoption globally

6.9.2.4 Transmitters

6.9.2.4.1 Transmitters form significant components of vibration monitoring systems



#### 6.9.2.5 Others

TABLE 97 VIBRATION MONITORING FOR OIL & GAS MARKET, BY HARDWARE TYPE, 2016–2019 (USD MILLION)

TABLE 98 VIBRATION MONITORING FOR OIL & GAS MARKET, BY HARDWARE TYPE, 2020–2025 (USD MILLION)

#### 6.9.3 SOFTWARE

#### 6.9.4 SYSTEM TYPE

##### 6.9.4.1 Embedded vibration monitoring systems

6.9.4.1.1 Increased adoption of embedded vibration monitoring systems in oil & gas plants

##### 6.9.4.2 Vibration analyzers

6.9.4.2.1 Vibration data gathered through vibration analyzers supports efficient machine condition monitoring

##### 6.9.4.3 Vibration meters

6.9.4.3.1 Risen use of vibration meters for simple vibration measurements of machines

TABLE 99 VIBRATION MONITORING FOR OIL & GAS MARKET, BY SYSTEM TYPE, 2016–2019 (USD MILLION)

TABLE 100 VIBRATION MONITORING FOR OIL & GAS MARKET, BY SYSTEM TYPE, 2020–2025 (USD MILLION)

## 7 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY SOLUTION

### 7.1 INTRODUCTION

FIGURE 28 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY SOLUTION

TABLE 101 USES OF DIFFERENT SOLUTIONS IN MANUFACTURING INDUSTRIES

TABLE 102 INDUSTRIAL AUTOMATION IN OIL & GAS MARKET, BY SOLUTION, 2016–2019 (USD MILLION)

TABLE 103 INDUSTRIAL AUTOMATION IN OIL & GAS MARKET, BY SOLUTION, 2020–2025 (USD MILLION)

### 7.2 SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)

7.2.1 SCADA SYSTEMS FACILITATE REAL-TIME DATA COLLECTION FROM REMOTE LOCATIONS TO CONTROL DIFFERENT DEVICES

FIGURE 29 SCOPE OF SCADA IN INDUSTRIAL AUTOMATION IN OIL & GAS MARKET

TABLE 104 SCADA MARKET FOR OIL & GAS INDUSTRY, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 105 SCADA MARKET FOR OIL & GAS INDUSTRY, BY ARCHITECTURE, 2020–2025 (USD MILLION)



TABLE 106 SCADA MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019  
(USD MILLION)

TABLE 107 SCADA MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025  
(USD MILLION)

### 7.3 PROGRAMMABLE LOGIC CONTROLLERS (PLC)

7.3.1 PROGRAMMABLE LOGIC CONTROLLERS CONTROL AUTOMATION OF  
DIFFERENT O&G PROCESSES

FIGURE 30 ADVANTAGES OF PLC IN AUTOMATION PROCESS

TABLE 108 PLC MARKET FOR OIL & GAS INDUSTRY, BY TYPE, 2016–2019 (USD  
MILLION)

TABLE 109 PLC MARKET FOR OIL & GAS INDUSTRY, BY TYPE, 2020–2025 (USD  
MILLION)

TABLE 110 PLC MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019  
(USD MILLION)

TABLE 111 PLC MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025  
(USD MILLION)

### 7.4 DISTRIBUTED CONTROL SYSTEMS (DCS)

7.4.1 DCS CAN OVERSEE MULTIPLE INTEGRATED SUBSYSTEMS IN OIL & GAS  
PLANTS

FIGURE 31 BENEFITS OF DCS IN OIL & GAS PLANTS

TABLE 112 VARIOUS DCS OFFERED BY DIFFERENT COMPANIES

TABLE 113 DCS MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019  
(USD MILLION)

TABLE 114 DCS MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025  
(USD MILLION)

### 7.5 MANUFACTURING EXECUTION SYSTEMS (MES)

7.5.1 COST-SAVINGS AND OPERATION OPTIMIZATION TO DRIVE DEMAND FOR  
MES IN OIL & GAS INDUSTRY

TABLE 115 MANUFACTURING EXECUTION SYSTEM MARKET FOR OIL & GAS  
INDUSTRY, BY DEPLOYMENT, 2016–2019 (USD MILLION)

TABLE 116 MANUFACTURING EXECUTION SYSTEM MARKET FOR OIL & GAS  
INDUSTRY, BY DEPLOYMENT, 2020–2025 (USD MILLION)

TABLE 117 MANUFACTURING EXECUTION SYSTEM MARKET FOR OIL & GAS  
INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 118 MANUFACTURING EXECUTION SYSTEM MARKET FOR OIL & GAS  
INDUSTRY, BY REGION, 2020–2025 (USD MILLION)

### 7.6 FUNCTIONAL SAFETY

7.6.1 FUNCTIONAL SAFETY SYSTEMS HELP TO PREVENT HAZARDS IN OIL &  
GAS INDUSTRY

TABLE 119 SAFETY-RELATED STANDARDS

TABLE 120 FUNCTIONAL SAFETY MARKET FOR OIL & GAS INDUSTRY, BY SYSTEM, 2016–2019 (USD MILLION)

TABLE 121 FUNCTIONAL SAFETY MARKET FOR OIL & GAS INDUSTRY, BY SYSTEM, 2020–2025 (USD MILLION)

TABLE 122 EMERGENCY SHUTDOWN SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 123 EMERGENCY SHUTDOWN SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025 (USD MILLION)

TABLE 124 HIGH-INTEGRITY PRESSURE PROTECTION SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 125 HIGH-INTEGRITY PRESSURE PROTECTION SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025 (USD MILLION)

TABLE 126 BURNER MANAGEMENT SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 127 BURNER MANAGEMENT SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025 (USD MILLION)

TABLE 128 FIRE & GAS MONITORING SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 129 FIRE & GAS MONITORING SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025 (USD MILLION)

TABLE 130 TURBOMACHINERY CONTROL SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 131 TURBOMACHINERY CONTROL SYSTEM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025 (USD MILLION)

TABLE 132 FUNCTIONAL SAFETY MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 133 FUNCTIONAL SAFETY MARKET FOR OIL & GAS, BY REGION, 2020–2025 (USD MILLION)

## 7.7 PLANT ASSET MANAGEMENT (PAM)

7.7.1 PAM SOLUTIONS HELP TO REDUCE DOWNTIME IN OIL & GAS PLANTS

TABLE 134 PAM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2016–2019 (USD MILLION)

TABLE 135 PAM MARKET FOR OIL & GAS INDUSTRY, BY REGION, 2020–2025 (USD MILLION)

## 8 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY STREAM

### 8.1 INTRODUCTION

TABLE 136 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY STREAM, 2016–2019 (USD MILLION)

TABLE 137 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY STREAM, 2020–2025 (USD MILLION)

## 8.2 UPSTREAM

8.2.1 DISCOVERY AND EXPLORATION OF CRUDE OIL TAKE PLACE IN UPSTREAM PROCESS

TABLE 138 SCOPE OF AUTOMATION IN UPSTREAM PROCESS

## 8.3 MIDSTREAM

8.3.1 MIDSTREAM SEGMENT OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

## 8.4 DOWNSTREAM

8.4.1 DOWNSTREAM SEGMENT TO ACCOUNT FOR LARGEST SHARE OF INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN 2025

# 9 GEOGRAPHIC ANALYSIS

## 9.1 INTRODUCTION

FIGURE 32 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY REGION

TABLE 139 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY REGION, 2016–2019 (USD MILLION)

TABLE 140 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET, BY REGION, 2020–2025 (USD MILLION)

## 9.2 NORTH AMERICA

TABLE 141 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN NORTH AMERICA, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 142 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN NORTH AMERICA, BY COUNTRY, 2020–2025 (USD MILLION)

FIGURE 33 SNAPSHOT: INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN NORTH AMERICA

### 9.2.1 US

9.2.1.1 US held largest share of industrial automation for oil & gas market in North America in 2019

### 9.2.2 CANADA

9.2.2.1 Canada houses third-largest oil reserves in world

### 9.2.3 MEXICO

9.2.3.1 Industrial automation for oil & gas market in Mexico to record highest CAGR from 2020 to 2025

## 9.3 EUROPE

TABLE 143 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN EUROPE, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 144 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN EUROPE, BY COUNTRY, 2020–2025 (USD MILLION)

#### 9.3.1 UK

9.3.1.1 Industrial automation components and solutions widely being used in UK

#### 9.3.2 NORWAY

9.3.2.1 Norway witnessing increased adoption of automation in oil & gas industry

#### 9.3.3 RUSSIA

9.3.3.1 Industrial automation for oil & gas market in Russia to grow at significant CAGR from 2020 to 2025

#### 9.3.4 KAZAKHSTAN

9.3.4.1 Kazakhstan has the second largest oil reserves in the world

#### 9.3.5 AZERBAIJAN

9.3.5.1 Azerbaijan's economy largely depends on oil & gas exports

#### 9.3.6 REST OF EUROPE

### 9.4 APAC

TABLE 145 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN APAC, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 146 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN APAC, BY COUNTRY, 2020–2025 (USD MILLION)

FIGURE 34 SNAPSHOT: INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN APAC

#### 9.4.1 CHINA

9.4.1.1 China accounted for largest share of industrial automation for oil & gas market in APAC in 2019

#### 9.4.2 MALAYSIA

9.4.2.1 Industrial automation for oil & gas market in Malaysia to grow at highest CAGR from 2020 to 2025

#### 9.4.3 INDIA

9.4.3.1 India ranks second among growing economies of APAC

#### 9.4.4 REST OF APAC

### 9.5 REST OF THE WORLD (ROW)

TABLE 147 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN ROW, BY REGION, 2016–2019, (USD MILLION)

TABLE 148 INDUSTRIAL AUTOMATION IN OIL & GAS MARKET IN ROW, BY REGION, 2020–2025 (USD MILLION)

#### 9.5.1 SOUTH AMERICA

9.5.1.1 Brazil—largest oil consumer in South America

## 9.5.2 MIDDLE EAST AND AFRICA

9.5.2.1 Industrial automation for oil & gas market in Middle East and Africa to grow at high CAGR from 2020 to 2025

TABLE 149 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN MIDDLE EAST AND AFRICA, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 150 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET IN MIDDLE EAST AND AFRICA, BY COUNTRY, 2020–2025 (USD MILLION)

9.5.2.2 Saudi Arabia

9.5.2.3 Iran

9.5.2.4 United Arab Emirates

9.5.2.5 Kuwait

9.5.2.6 Iraq

9.5.2.7 Rest of Middle East and Africa

## 10 COMPETITIVE LANDSCAPE

### 10.1 OVERVIEW

#### 10.2 5 YEARS REVENUE AND MARKET SHARE ANALYSES

FIGURE 35 TOP 5 PLAYERS DOMINATED MARKET IN LAST 5 YEARS

TABLE 151 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET: MARKET SHARE ANALYSIS (2019)

TABLE 152 PROCESS ANALYZER MARKET: MARKET SHARE ANALYSIS (2019)

#### 10.3 COMPETITIVE EVALUATION QUADRANT

10.3.1 STAR

10.3.2 EMERGING LEADER

10.3.3 PERVASIVE

10.3.4 PARTICIPANT

FIGURE 36 INDUSTRIAL AUTOMATION FOR OIL & GAS MARKET (GLOBAL) COMPETITIVE EVALUATION QUADRANT, 2019

TABLE 153 COMPANY PRODUCT FOOTPRINT

TABLE 154 COMPANY COMPONENT AND SOLUTIONS FOOTPRINT

TABLE 155 COMPANY REGIONAL FOOTPRINT

#### 10.4 STARTUP/SME EVALUATION QUADRANT

10.4.1 PROGRESSIVE COMPANY

10.4.2 RESPONSIVE COMPANY

10.4.3 DYNAMIC COMPANY

10.4.4 STARTING BLOCK

FIGURE 37 STARTUP/SME EVALUATION MATRIX

#### 10.5 COMPETITIVE SITUATION AND TRENDS

10.5.1 PRODUCT LAUNCHES AND DEVELOPMENTS

**TABLE 156 PRODUCT LAUNCHES AND DEVELOPMENTS, 2019–2020****11 COMPANY PROFILES**

(Business overview, Products/solutions/services offered, Recent developments & MnM View)\*

**11.1 KEY PLAYERS****11.1.1 ABB****FIGURE 38 ABB: COMPANY SNAPSHOT****11.1.2 EMERSON****FIGURE 39 EMERSON: COMPANY SNAPSHOT****11.1.3 SIEMENS****FIGURE 40 SIEMENS: COMPANY SNAPSHOT****11.1.4 SCHNEIDER ELECTRIC****FIGURE 41 SCHNEIDER ELECTRIC: COMPANY SNAPSHOT****11.1.5 HONEYWELL****FIGURE 42 HONEYWELL: COMPANY SNAPSHOT****11.1.6 MITSUBISHI ELECTRIC CORPORATION****FIGURE 43 MITSUBISHI ELECTRIC CORPORATION: COMPANY SNAPSHOT****11.1.7 GENERAL ELECTRIC****FIGURE 44 GENERAL ELECTRIC: COMPANY SNAPSHOT****11.1.8 ROCKWELL AUTOMATION****FIGURE 45 ROCKWELL AUTOMATION: COMPANY SNAPSHOT****11.1.9 YOKOGAWA ELECTRIC CORPORATION****FIGURE 46 YOKOGAWA ELECTRIC CORPORATION: COMPANY SNAPSHOT****11.1.10 ENDRESS+HAUSER****FIGURE 47 ENDRESS+HAUSER: COMPANY SNAPSHOT**

\*Details on Business overview, Products/solutions/services offered, Recent developments & MnM View might not be captured in case of unlisted companies.

**11.2 OTHER KEY PLAYERS****11.2.1 FANUC CORPORATION****11.2.2 OMRON CORPORATION****11.2.3 AZBIL****11.2.4 KUKA****11.2.5 VEGA GRIESHABER****11.2.6 HITACHI****11.2.7 UNIVERSAL ROBOTS****11.2.8 AMETEK****11.2.9 WIKA**

- 11.2.10 DANFOSS
- 11.2.11 DWYER INSTRUMENTS
- 11.2.12 FUJI ELECTRIC
- 11.2.13 KROHNE
- 11.2.14 METTLER-TOLEDO
- 11.2.15 THERMO FISHER SCIENTIFIC

## **12 ADJACENT AND RELATED MARKET**

### 12.1 INTRODUCTION

### 12.2 LIMITATIONS

### 12.3 PROCESS ANALYZER MARKET

#### 12.3.1 DEFINITION

#### 12.3.2 MARKET OVERVIEW

#### 12.3.3 PROCESS ANALYZER MARKET, BY INDUSTRY

TABLE 157 PROCESS ANALYZER MARKET, BY INDUSTRY, 2016–2019 (USD MILLION)

TABLE 158 PROCESS ANALYZER MARKET, BY INDUSTRY, 2020–2025 (USD MILLION)

##### 12.3.3.1 Oil & Gas

12.3.3.1.1 Liquid analyzer segment to hold large market share in oil & gas industry

TABLE 159 LIQUID ANALYZER MARKET FOR OIL & GAS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 160 LIQUID ANALYZER MARKET FOR OIL & GAS, BY TYPE, 2020–2025 (USD MILLION)

TABLE 161 GAS ANALYZER MARKET FOR OIL & GAS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 162 GAS ANALYZER MARKET FOR OIL & GAS, BY TYPE, 2020–2025 (USD MILLION)

##### 12.3.3.2 Petrochemicals

12.3.3.2.1 Liquid analyzer segment to grow at high CAGR in petrochemicals industry

TABLE 163 LIQUID ANALYZER MARKET FOR PETROCHEMICALS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 164 LIQUID ANALYZER MARKET FOR PETROCHEMICALS, BY TYPE, 2020–2025 (USD MILLION)

TABLE 165 GAS ANALYZER MARKET FOR PETROCHEMICALS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 166 GAS ANALYZER MARKET FOR PETROCHEMICALS, BY TYPE,



2020–2025 (USD MILLION)

12.3.3.3 Pharmaceuticals

12.3.3.3.1 Pharmaceuticals segment of market to grow at highest CAGR during forecast period

TABLE 167 LIQUID ANALYZER MARKET FOR PHARMACEUTICALS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 168 LIQUID ANALYZER MARKET FOR PHARMACEUTICALS, BY TYPE, 2020–2025 (USD MILLION)

TABLE 169 GAS ANALYZER MARKET FOR PHARMACEUTICALS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 170 GAS ANALYZER MARKET FOR PHARMACEUTICALS, BY TYPE, 2020–2025 (USD MILLION)

12.3.3.4 Water & Wastewater

12.3.3.4.1 Increased use of liquid analyzers in water & wastewater industry

TABLE 171 LIQUID ANALYZER MARKET FOR WATER & WASTEWATER, BY TYPE, 2016–2019 (USD MILLION)

TABLE 172 LIQUID ANALYZER MARKET FOR WATER & WASTEWATER, BY TYPE, 2020–2025 (USD MILLION)

TABLE 173 GAS ANALYZER MARKET FOR WATER & WASTEWATER, BY TYPE, 2016–2019 (USD MILLION)

TABLE 174 GAS ANALYZER MARKET FOR WATER & WASTEWATER, BY TYPE, 2020–2025 (USD MILLION)

12.3.3.5 Power

12.3.3.5.1 Oxygen analyzers to witness highest demand from power industry during forecast period

TABLE 175 PROCESS ANALYZER MARKET FOR POWER, BY TYPE, 2016–2019 (USD MILLION)

TABLE 176 PROCESS ANALYZER MARKET FOR POWER, BY TYPE, 2020–2025 (USD MILLION)

TABLE 177 LIQUID ANALYZER MARKET FOR POWER, BY TYPE, 2016–2019 (USD MILLION)

TABLE 178 LIQUID ANALYZER MARKET FOR POWER, BY TYPE, 2020–2025 (USD MILLION)

TABLE 179 GAS ANALYZER MARKET FOR POWER, BY TYPE, 2016–2019 (USD MILLION)

TABLE 180 GAS ANALYZER MARKET FOR POWER, BY TYPE, 2020–2025 (USD MILLION)

12.3.3.6 Food & Beverages

12.3.3.6.1 Liquid analyzer segment to hold largest market share in food &

beverages industry

TABLE 181 LIQUID ANALYZER MARKET FOR FOOD & BEVERAGES, BY TYPE, 2016–2019 (USD MILLION)

TABLE 182 LIQUID ANALYZER MARKET FOR FOOD & BEVERAGES, BY TYPE, 2020–2025 (USD MILLION)

TABLE 183 GAS ANALYZER MARKET FOR FOOD & BEVERAGES, BY TYPE, 2016–2019 (USD MILLION)

TABLE 184 GAS ANALYZER MARKET FOR FOOD & BEVERAGES, BY TYPE, 2020–2025 (USD MILLION)

#### 12.3.3.7 Paper & Pulp

12.3.3.7.1 Gas analyzer segment to hold large share in paper & pulp industry

TABLE 185 LIQUID ANALYZER MARKET FOR PAPER & PULP, BY TYPE, 2016–2019 (USD MILLION)

TABLE 186 LIQUID ANALYZER MARKET FOR PAPER & PULP, BY TYPE, 2020–2025 (USD MILLION)

TABLE 187 GAS ANALYZER MARKET FOR PAPER & PULP, BY TYPE, 2016–2019 (USD MILLION)

TABLE 188 GAS ANALYZER MARKET FOR PAPER & PULP, BY TYPE, 2020–2025 (USD MILLION)

#### 12.3.3.8 Metals & Mining

12.3.3.8.1 Oxygen analyzer segment to grow at highest CAGR in metals & mining industry

TABLE 189 LIQUID ANALYZER MARKET FOR METALS & MINING, BY TYPE, 2016–2019 (USD MILLION)

TABLE 190 LIQUID ANALYZER MARKET FOR METALS & MINING, BY TYPE, 2020–2025 (USD MILLION)

TABLE 191 GAS ANALYZER MARKET FOR METALS & MINING, BY TYPE, 2016–2019 (USD MILLION)

TABLE 192 GAS ANALYZER MARKET FOR METALS & MINING, BY TYPE, 2020–2025 (USD MILLION)

#### 12.3.3.9 Cement & Glass

12.3.3.9.1 Hydrogen sulfide analyzer segment to record highest CAGR in cement & glass industry

TABLE 193 LIQUID ANALYZER MARKET FOR CEMENT & GLASS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 194 LIQUID ANALYZER MARKET FOR CEMENT & GLASS, BY TYPE, 2020–2025 (USD MILLION)

TABLE 195 GAS ANALYZER MARKET FOR CEMENT & GLASS, BY TYPE, 2016–2019 (USD MILLION)

TABLE 196 GAS ANALYZER MARKET FOR CEMENT & GLASS, BY TYPE,  
2020–2025 (USD MILLION)

12.3.3.10 Others

TABLE 197 LIQUID ANALYZER MARKET FOR OTHER INDUSTRIES, BY TYPE,  
2016–2019 (USD MILLION)

TABLE 198 LIQUID ANALYZER MARKET FOR OTHER INDUSTRIES, BY TYPE,  
2020–2025 (USD MILLION)

TABLE 199 GAS ANALYZER MARKET FOR OTHER INDUSTRIES, BY TYPE,  
2016–2019 (USD MILLION)

TABLE 200 GAS ANALYZER MARKET FOR OTHER INDUSTRIES, BY TYPE,  
2020–2025 (USD MILLION)

12.3.4 PROCESS ANALYZER MARKET, BY REGION

TABLE 201 PROCESS ANALYZER MARKET, BY REGION, 2016–2019 (USD  
MILLION)

TABLE 202 PROCESS ANALYZER MARKET, BY REGION, 2020–2025 (USD  
MILLION)

12.3.4.1 North America

TABLE 203 PROCESS ANALYZER MARKET IN NORTH AMERICA, BY COUNTRY,  
2016–2019 (USD MILLION)

TABLE 204 PROCESS ANALYZER MARKET IN NORTH AMERICA, BY COUNTRY,  
2020–2025 (USD MILLION)

12.3.4.2 Europe

TABLE 205 PROCESS ANALYZER MARKET IN EUROPE, BY COUNTRY, 2016–2019  
(USD MILLION)

TABLE 206 PROCESS ANALYZER MARKET IN EUROPE, BY COUNTRY, 2020–2025  
(USD MILLION)

12.3.4.3 APAC

TABLE 207 PROCESS ANALYZER MARKET IN APAC, BY COUNTRY, 2016–2019  
(USD MILLION)

TABLE 208 PROCESS ANALYZER MARKET IN APAC, BY COUNTRY, 2020–2025  
(USD MILLION)

12.3.4.4 ROW

TABLE 209 PROCESS ANALYZER MARKET IN ROW, BY REGION, 2016–2019 (USD  
MILLION)

TABLE 210 PROCESS ANALYZER MARKET IN ROW, BY REGION, 2020–2025 (USD  
MILLION)

## 13 APPENDIX

13.1 INSIGHTS OF INDUSTRY EXPERTS

13.2 DISCUSSION GUIDE

13.3 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

13.4 AVAILABLE CUSTOMIZATIONS

13.5 RELATED REPORTS

13.6 AUTHOR DETAILS

## I would like to order

Product name: Industrial Automation Oil & Gas Market With COVID-19 Impact, by Component (Control Valves, HMI, Process Analyzers, Intelligent Pigging, Vibration Monitoring), Solutions (SCADA, PLC, DCS, MES, PAM), Stream and Region - Global Forecast to 2025

Product link: <https://marketpublishers.com/r/I9C665A9966EN.html>

Price: US\$ 4,950.00 (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/I9C665A9966EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970