

Humidity Sensor - Company Evaluation Report, 2025

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Abstracts

The Humidity Sensor Companies Quadrant is a comprehensive industry analysis that provides valuable insights into the global market for Humidity Sensor. This quadrant offers a detailed evaluation of key market players, technological advancements, product innovations, and emerging trends shaping the industry. MarketsandMarkets 360 Quadrants evaluated over 100 companies, of which the Top 25 Humidity Sensor Companies were categorized and recognized as the quadrant leaders.

A humidity sensor is a device that detects and monitors moisture levels in the air, ranging from standalone handheld models to embedded components in comprehensive air quality systems. Utilizing a sensing element—often in combination with a thermistor—these sensors translate humidity data into electrical signals for display. They are capable of measuring either relative humidity (RH) or absolute humidity (AH). RH indicates the current moisture level as a percentage of the maximum possible at a specific temperature, while AH quantifies the water vapor in grams per cubic meter of air. Humidity sensors are typically classified into three types: capacitive (measuring RH through a metal strip placed between electrodes), resistive (using ionized salts to measure RH), and thermal (measuring AH based on temperature differentials).

Key market growth drivers include the growing adoption of compact digital humidity sensors to streamline efficiency and simplify device architecture, the expanding use of these sensors in industrial processes, semiconductor fabrication, and smart home ecosystems, and the increasing need for accurate humidity control in printing operations to improve productivity, enhance output quality, and reduce operational costs.

The 360 Quadrant maps the Humidity Sensor companies based on criteria such as revenue, geographic presence, growth strategies, investments, and sales strategies for the market presence of the Humidity Sensor quadrant. The top criteria for product footprint evaluation included By Type (Capacitive, Resistive and Thermal), By

Measurement Technique (Absolute and Relative) and By End-Use Application (Environmental Monitoring, HVAC & Climate Control, Industrial Process Control, Consumer Electronics, Healthcare and Pharmaceutical, Agriculture and other applications).

Key Players

Key players in the Humidity Sensor market include BBI Solutions (UK), Merck KGaA (Germany), Fortis Life Sciences, LLC (US), Tanaka Precious Metals Group Co (Japan), Meliorum Technologies Inc (US), CD Bioparticles (US), Nanopartz (US), Nano Labs (India), Cytodiagnosics Inc (Canada), and Nanocs Inc (US). To maintain and enhance their market positions, these companies are actively pursuing strategies such as mergers, acquisitions, and geographic expansions. A strong focus on research and development is also evident, with significant investments aimed at creating innovative and technically advanced solutions to meet evolving customer needs. These strategic initiatives are designed to boost market share, strengthen global presence, and stay competitive in a rapidly advancing industry landscape.

Top 3 Companies

Amphenol Advanced Sensors

Amphenol Advanced Sensors is recognized for its wide-ranging product portfolio in electrical and electronic connectors and sensor-based products, which bolster its position in the market. The company excels due to its global reach and significant investments in sensor innovation across diverse sectors like aerospace, automotive, and industrial manufacturing. Their strategic expansions and focus on advanced materials contribute greatly to their market standing.

Honeywell International Inc.

Honeywell operates with a broad footprint across various segments including aerospace and building technologies. Its strong global presence, particularly in the U.S., and investment in R&D are pivotal to its strong market share. Honeywell is noted for its integration of advanced technology in its sensors, serving industries that demand high reliability such as healthcare and environmental monitoring.

Texas Instruments Incorporated

Texas Instruments stands out with its focus on analog and embedded processing technologies, comprising a significant revenue share. Its product portfolio of humidity sensors addresses the needs of the industrial, automotive, and consumer markets. The company's strategic expansion in semiconductor manufacturing facilities across several global locations ensures its position as a leader in the humidity sensor market.

Contents

1 INTRODUCTION

- 1.1 MARKET DEFINITION
- 1.2 INCLUSIONS AND EXCLUSIONS
- 1.3 STAKEHOLDERS

2 EXECUTIVE SUMMARY

3 MARKET OVERVIEW

3.1 INTRODUCTION

3.2 MARKET DYNAMICS

3.2.1 DRIVERS

- 3.2.1.1 Increasing demand for efficient and compact sensors
- 3.2.1.2 Rising need for precise environmental monitoring solutions
- 3.2.1.3 Increasing requirement for humidity control in printing processes

3.2.2 RESTRAINTS

- 3.2.2.1 Incompatibility of legacy systems with contemporary digital humidity sensors
- 3.2.2.2 Sensor drift and other performance issues

3.2.3 OPPORTUNITIES

- 3.2.3.1 Rapid advances in printed humidity sensors
- 3.2.3.2 Growing demand for calibrated humidity sensors for cost-effective applications

3.2.4 CHALLENGES

- 3.2.4.1 Sensor design complications due to lack of uniform standards
- 3.2.4.2 Requirement for substantial investments in advanced materials and sophisticated engineering approaches

3.3 VALUE CHAIN ANALYSIS

3.4 ECOSYSTEM ANALYSIS

3.5 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

3.6 TECHNOLOGY ANALYSIS

3.6.1 KEY TECHNOLOGIES

- 3.6.1.1 Gravimetric humidity sensing
- 3.6.1.2 Nanomaterial-based sensors
- 3.6.1.3 Flexible electronics

3.6.2 COMPLEMENTARY TECHNOLOGIES

- 3.6.2.1 Calibration technologies

3.6.2.2 Wireless communication modules

3.6.3 ADJACENT TECHNOLOGIES

3.6.3.1 Environmental simulation chambers

3.7 IMPACT OF AI/GEN AI ON HUMIDITY SENSOR MARKET

3.7.1 INTRODUCTION

3.8 PORTER'S FIVE FORCES ANALYSIS

3.8.1 THREAT OF NEW ENTRANTS

3.8.2 THREAT OF SUBSTITUTES

3.8.3 BARGAINING POWER OF SUPPLIERS

3.8.4 BARGAINING POWER OF BUYERS

3.8.5 INTENSITY OF COMPETITIVE RIVALRY

3.9 PATENT ANALYSIS

4 COMPETITIVE LANDSCAPE

4.1 OVERVIEW

4.2 KEY PLAYER STRATEGIES/RIGHT TO WIN, 2021–2024

4.3 REVENUE ANALYSIS, 2019–2023

4.4 MARKET SHARE ANALYSIS, 2023

4.5 COMPANY VALUATION AND FINANCIAL METRICS, 2024

4.6 PRODUCT COMPARISON

4.7 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2024

4.7.1 STARS

4.7.2 EMERGING LEADERS

4.7.3 PERVASIVE PLAYERS

4.7.4 PARTICIPANTS

4.7.5 COMPANY FOOTPRINT: KEY PLAYERS, 2024

4.7.5.1 Company footprint

4.7.5.2 Region footprint

4.7.5.3 Type footprint

4.7.5.4 Measurement technique footprint

4.7.5.5 End-use application footprint

4.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2024

4.8.1 PROGRESSIVE COMPANIES

4.8.2 RESPONSIVE COMPANIES

4.8.3 DYNAMIC COMPANIES

4.8.4 STARTING BLOCKS

4.8.5 COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2023

4.8.5.1 Detailed list of key startups/SMEs

4.8.5.2 Competitive benchmarking of key startups/SMEs

4.9 COMPETITIVE SCENARIO

4.9.1 PRODUCT LAUNCHES

4.9.2 DEALS

5 COMPANY PROFILES

5.1 KEY COMPANIES

5.1.1 AMPHENOL ADVANCED SENSORS

5.1.1.1 Business overview

5.1.1.2 Products/Solutions/Services offered

5.1.1.3 MnM view

5.1.1.3.1 Key strengths/Right to win

5.1.1.3.2 Strategic choices

5.1.1.3.3 Weaknesses/Competitive threats

5.1.2 HONEYWELL INTERNATIONAL INC.

5.1.2.1 Business overview

5.1.2.2 Products/Solutions/Services offered

5.1.2.3 Recent developments

5.1.2.3.1 Deals

5.1.2.4 MnM view

5.1.2.4.1 Key strengths/Right to win

5.1.2.4.2 Strategic choices

5.1.2.4.3 Weaknesses/Competitive threats

5.1.3 TEXAS INSTRUMENTS INCORPORATED

5.1.3.1 Business overview

5.1.3.2 Products/Solutions/Services offered

5.1.3.3 Recent developments

5.1.3.3.1 Product launches

5.1.3.3.2 Deals

5.1.3.4 MnM view

5.1.3.4.1 Key strengths/Right to win

5.1.3.4.2 Strategic choices

5.1.3.4.3 Weaknesses/Competitive threats

5.1.4 SETRA SYSTEMS

5.1.4.1 Business overview

5.1.4.2 Products/Solutions/Services offered

5.1.4.3 Recent developments

5.1.4.3.1 Deals

5.1.4.4 MnM view

5.1.4.4.1 Key strengths/Right to win

5.1.4.4.2 Strategic choices

5.1.4.4.3 Weaknesses/Competitive threats

5.1.5 SENSIRION AG

5.1.5.1 Business overview

5.1.5.2 Products/Solutions/Services offered

5.1.5.3 Recent developments

5.1.5.3.1 Product launches

5.1.5.3.2 Deals

5.1.5.4 MnM view

5.1.5.4.1 Key strengths/Right to win

5.1.5.4.2 Strategic choices

5.1.5.4.3 Weaknesses/Competitive threats

5.1.6 TE CONNECTIVITY

5.1.6.1 Business overview

5.1.6.2 Products/Solutions/Services offered

5.1.6.3 Recent developments

5.1.6.3.1 Deals

5.1.7 SIEMENS

5.1.7.1 Business overview

5.1.7.2 Products/Solutions/Services offered

5.1.7.3 Recent developments

5.1.7.3.1 Deals

5.1.8 TERACOM

5.1.8.1 Business overview

5.1.8.2 Products/Solutions/Services offered

5.1.9 BOSCH SENSORTEC GMBH

5.1.9.1 Business overview

5.1.9.2 Products/Solutions/Services offered

5.1.10 SCHNEIDER ELECTRIC

5.1.10.1 Business overview

5.1.10.2 Products/Solutions/Services offered

5.1.11 RENESAS ELECTRONICS CORPORATION

5.1.11.1 Business overview

5.1.11.2 Products/Solutions/Services offered

5.2 OTHER PLAYERS

5.2.1 B+B THERMO-TECHNIK GMBH

5.2.2 E+E ELEKTRONIK GES.M.B.H.

- 5.2.3 IST AG
- 5.2.4 HUNAN RIKA ELECTRONIC TECH CO.,LTD
- 5.2.5 DICKSON
- 5.2.6 GALLTEC MESS- UND REGELTECHNIK GMBH
- 5.2.7 PCE HOLDING GMBH
- 5.2.8 SETRA SYSTEMS
- 5.2.9 SUNSUI PROCESS SYSTEM
- 5.2.10 PRESSAC COMMUNICATIONS LIMITED
- 5.2.11 SMART FOG
- 5.2.12 WINSEN
- 5.2.13 KELE PRECISION MANUFACTURING
- 5.2.14 RAYSTEK PROCESS INSTRUMENTS
- 5.2.15 AHLBORN
- 5.2.16 SHANDONG RENKE CONTROL TECHNOLOGY CO.,LTD.
- 5.2.17 AVTECH SOFTWARE, INC.
- 5.2.18 NOVOSENSE

6 APPENDIX

6.1 RESEARCH METHODOLOGY

6.1.1 RESEARCH DATA

6.1.1.1 Secondary data

6.1.1.2 Primary data

6.1.2 RESEARCH ASSUMPTIONS

6.1.3 RESEARCH LIMITATIONS

6.1.4 RISK ANALYSIS

6.2 COMPANY EVALUATION MATRIX: METHODOLOGY

6.3 AUTHOR DETAILS

List Of Tables

LIST OF TABLES

TABLE 1 ROLE OF COMPANIES IN HUMIDITY SENSOR ECOSYSTEM

TABLE 2 PORTER'S FIVE FORCES ANALYSIS

TABLE 3 LIST OF KEY PATENTS, 2024

TABLE 4 HUMIDITY SENSOR MARKET: OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS, JANUARY 2021–DECEMBER 2024

TABLE 5 HUMIDITY SENSOR MARKET: DEGREE OF COMPETITION, 2023

TABLE 6 HUMIDITY SENSOR MARKET: REGION FOOTPRINT

TABLE 7 HUMIDITY SENSOR MARKET: TYPE FOOTPRINT

TABLE 8 HUMIDITY SENSOR MARKET: MEASUREMENT TECHNIQUE FOOTPRINT

TABLE 9 HUMIDITY SENSOR MARKET: END-USE APPLICATION FOOTPRINT

TABLE 10 HUMIDITY SENSOR MARKET: DETAILED LIST OF KEY STARTUPS/SMES

TABLE 11 HUMIDITY SENSOR MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES

TABLE 12 HUMIDITY SENSOR MARKET: PRODUCT LAUNCHES, JANUARY 2021–DECEMBER 2024

TABLE 13 HUMIDITY SENSOR MARKET: DEALS, JANUARY 2021–DECEMBER 2024

TABLE 14 AMPHENOL ADVANCED SENSORS: COMPANY OVERVIEW

TABLE 15 AMPHENOL ADVANCED SENSORS: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 16 HONEYWELL INTERNATIONAL INC.: COMPANY OVERVIEW

TABLE 17 HONEYWELL INTERNATIONAL INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 18 HONEYWELL INTERNATIONAL INC.: DEALS

TABLE 19 TEXAS INSTRUMENTS INCORPORATED: COMPANY OVERVIEW

TABLE 20 TEXAS INSTRUMENTS INCORPORATED: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 21 TEXAS INSTRUMENTS INCORPORATED: PRODUCT LAUNCHES

TABLE 22 TEXAS INSTRUMENTS INCORPORATED: DEALS

TABLE 23 SETRA SYSTEMS: COMPANY OVERVIEW

TABLE 24 SETRA SYSTEMS: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 25 SETRA SYSTEMS: DEALS

TABLE 26 SENSIRION AG: COMPANY OVERVIEW

TABLE 27 SENSIRION AG: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 28 SENSIRION AG: PRODUCT LAUNCHES

TABLE 29 SENSIRION AG: DEALS

TABLE 30 TE CONNECTIVITY: COMPANY OVERVIEW

TABLE 31 TE CONNECTIVITY: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 32 TE CONNECTIVITY: DEALS

TABLE 33 SIEMENS: COMPANY OVERVIEW

TABLE 34 SIEMENS: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 35 SIEMENS: DEALS

TABLE 36 TERACOM: COMPANY OVERVIEW

TABLE 37 TERACOM: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 38 BOSCH SENSORTEC GMBH: COMPANY OVERVIEW

TABLE 39 BOSCH SENSORTEC GMBH: PRODUCTS/SOLUTIONS/SERVICES
OFFERED

TABLE 40 SCHNEIDER ELECTRIC: COMPANY OVERVIEW

TABLE 41 SCHNEIDER ELECTRIC: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 42 RENESAS ELECTRONICS CORPORATION: COMPANY OVERVIEW

TABLE 43 RENESAS ELECTRONICS CORPORATION:
PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 44 HUMIDITY SENSOR MARKET: RESEARCH ASSUMPTIONS

TABLE 45 HUMIDITY SENSOR MARKET: RISK ANALYSIS

List Of Figures

LIST OF FIGURES

FIGURE 1 THERMAL SEGMENT TO EXHIBIT HIGHEST CAGR IN HUMIDITY SENSOR MARKET FROM 2025 TO 2030

FIGURE 2 ABSOLUTE SEGMENT TO RECORD HIGHER CAGR DURING FORECAST PERIOD

FIGURE 3 INDUSTRIAL PROCESS CONTROL SEGMENT TO DOMINATE HUMIDITY SENSOR MARKET BETWEEN 2025 AND 2030

FIGURE 4 ASIA PACIFIC TO REGISTER HIGHEST CAGR IN HUMIDITY SENSOR MARKET DURING FORECAST PERIOD

FIGURE 5 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

FIGURE 6 IMPACT ANALYSIS: DRIVERS

FIGURE 7 IMPACT ANALYSIS: RESTRAINTS

FIGURE 8 IMPACT ANALYSIS: OPPORTUNITIES

FIGURE 9 IMPACT ANALYSIS: CHALLENGES

FIGURE 10 VALUE CHAIN ANALYSIS

FIGURE 11 HUMIDITY SENSOR ECOSYSTEM

FIGURE 12 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

FIGURE 13 IMPACT OF AI/GEN AI ON HUMIDITY SENSOR MARKET

FIGURE 14 PORTER'S FIVE FORCES ANALYSIS

FIGURE 15 PATENTS APPLIED AND GRANTED, 2012–2023

FIGURE 16 HUMIDITY SENSOR MARKET: REVENUE ANALYSIS OF FOUR KEY PLAYERS, 2019–2023

FIGURE 17 MARKET SHARE ANALYSIS OF COMPANIES OFFERING HUMIDITY SENSORS, 2023

FIGURE 18 COMPANY VALUATION, 2024

FIGURE 19 FINANCIAL METRICS, 2024 (EV/EBITDA)

FIGURE 20 PRODUCT COMPARISON

FIGURE 21 HUMIDITY SENSOR MARKET: COMPANY EVALUATION MATRIX (KEY PLAYERS), 2023

FIGURE 22 HUMIDITY SENSOR MARKET: COMPANY FOOTPRINT

FIGURE 23 HUMIDITY SENSOR MARKET: COMPANY EVALUATION MATRIX (STARTUPS/SMES), 2024

FIGURE 24 AMPHENOL ADVANCED SENSORS: COMPANY SNAPSHOT

FIGURE 25 HONEYWELL INTERNATIONAL INC.: COMPANY SNAPSHOT

FIGURE 26 TEXAS INSTRUMENTS INCORPORATED: COMPANY SNAPSHOT

FIGURE 27 SENSIRION AG: COMPANY SNAPSHOT

FIGURE 28 TE CONNECTIVITY: COMPANY SNAPSHOT

FIGURE 29 SIEMENS: COMPANY SNAPSHOT

FIGURE 30 BOSCH SENSORTEC GMBH: COMPANY SNAPSHOT

FIGURE 31 SCHNEIDER ELECTRIC: COMPANY SNAPSHOT

FIGURE 32 RENESAS ELECTRONICS CORPORATION: COMPANY SNAPSHOT

FIGURE 33 HUMIDITY SENSOR MARKET: RESEARCH DESIGN

FIGURE 34 HUMIDITY SENSOR MARKET: RESEARCH LIMITATIONS

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