

# **Colour Detection Sensor Market Report by Type (Colour Sensor, Contrast Sensor, Luminescence Sensor, and Others), End User (Food and Beverage, Medical, Chemical, Textile, Automotive, Factory Automation, and Others), and Region 2024-2032**

<https://marketpublishers.com/r/C6066EF10E6AEN.html>

Date: April 2024

Pages: 135

Price: US\$ 3,899.00 (Single User License)

ID: C6066EF10E6AEN

## **Abstracts**

The global colour detection sensor market size reached US\$ 2.1 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 3.8 Billion by 2032, exhibiting a growth rate (CAGR) of 6.6% during 2024-2032. The rising adoption of discreet RGB sensors instead of white ambient light sensors in smart devices, the expanding popularity of photography and videography, and continual technological advancements in the manufacturing of optical software represent some of the key factors driving the market.

Colour detection sensors illuminate a wide range of wavelengths, calculate the light ratio, and identify the red, blue, green, and white primary colors. The sensors illuminate the test objects with red, green, and blue LEDs. The chromaticity coordinates are calculated from the reflected radiation and compared with stored reference colours to detect the colour of a surface and cast LEDs on the object to be tested. Users can associate the specific characteristics of the target with the values stored in the internal memory of the sensor using a colour recognition channel. Depending on the intensity light ratio, a switching output is engaged if the colour values are within the set tolerance range. Colour detection sensors are useful for monitoring ambient light CCT and intensity, packaging and printing, plastics, and measuring chemical parameters.

### **Colour Detection Sensor Market Trends:**

The market is primarily driven by the rising adoption of discreet RGB sensors instead of white ambient light sensors in smart devices. This can be attributed to the increasing

sales of smart devices, such as smartphones, laptops and tablets, across the globe. In line with this, the expanding popularity of photography and videography using digital cameras as well as built-in smartphone cameras is leading to the higher adoption of colour detection sensors on the global level. Moreover, rapid industrial automation has further increased the demand for optical sensors across numerous industry verticals, such as automotive and heavy machinery, which, in turn, is fueling the market growth. Continual technological advancements in the manufacturing of optical software resulting in the development of colour sensors with clear output of reading intensity and colour value are also impacting the market positively. In addition to this, the rapid product utilization in various quality control applications across the textile industry, including fabric colour tone identification, is acting as a significant growth-inducing factor for the market. Furthermore, the escalating demand for high colour intensity components and RGB sensor applications in agrotech for weed detection, changes in crop patterns, and pest protection is creating a positive market outlook. Some of the other factors contributing to the market include rapid urbanization, rapid digitization, increasing penetration of high-speed internet, inflating disposable income levels and extensive research and development (R&D) activities.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global colour detection sensor market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on type and end user.

#### Type Insights:

- Colour Sensor
- Contrast Sensor
- Luminescence Sensor
- Others

The report has provided a detailed breakup and analysis of the colour detection sensor market based on the type. This includes colour sensor, contrast sensor, luminescence sensor, and others. According to the report, colour sensor accounted for the largest market share.

#### End User Insights:

- Food and Beverage

Medical  
Chemical  
Textile  
Automotive  
Factory Automation  
Others

A detailed breakup and analysis of the colour detection sensor market based on the end user has been provided in the report. This includes food and beverage, medical, chemical, textile, automotive, factory automation, and others. According to the report, food and beverage accounted for the largest market share.

#### Regional Insights:

North America  
United States  
Canada  
Asia Pacific  
China  
Japan  
India  
South Korea  
Australia  
Indonesia  
Others  
Europe  
Germany  
France  
United Kingdom  
Italy  
Spain  
Russia  
Others  
Latin America  
Brazil  
Mexico  
Others  
Middle East and Africa

The report has also provided a comprehensive analysis of all the major regional markets that include North America (the United States and Canada); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and Middle East and Africa. According to the report, Asia Pacific was the largest market for colour detection sensor. Some of the factors driving the Asia Pacific colour detection sensor market include continual technological advancements in the manufacturing of optical software, presence of a large number of smartphone manufacturing facilities, rapid digitization, etc.

#### Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in the global colour detection sensor market. Detailed profiles of all major companies have also been provided. Some of the companies covered include ams-OSRAM AG, Balluff GmbH, Banner Engineering Corp., Baumer Holding AG, Datalogic S.p.A. (Hydra S.p.A.), Hamamatsu Photonics K.K., Jenoptik AG, Keyence Corporation, Omron Corporation, Panasonic Holdings Corporation, Pepperl+Fuchs SE, SensoPart Industriesensorik GmbH, Sick AG (Sick Holding GmbH), etc. Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

#### Key Questions Answered in This Report

1. How big is the global colour detection sensor market?
2. What is the expected growth rate of the global colour detection sensor market during 2024-2032?
3. What are the key factors driving the global colour detection sensor market?
4. What has been the impact of COVID-19 on the global colour detection sensor market?
5. What is the breakup of the global colour detection sensor market based on the type?
6. What is the breakup of the global colour detection sensor market based on the end user?
7. What are the key regions in the global colour detection sensor market?
8. Who are the key players/companies in the global colour detection sensor market?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL COLOUR DETECTION SENSOR MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY TYPE**

- 6.1 Colour Sensor
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Contrast Sensor
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast
- 6.3 Luminescence Sensor

- 6.3.1 Market Trends
- 6.3.2 Market Forecast
- 6.4 Others
  - 6.4.1 Market Trends
  - 6.4.2 Market Forecast

## **7 MARKET BREAKUP BY END USER**

- 7.1 Food and Beverage
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Medical
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 Chemical
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast
- 7.4 Textile
  - 7.4.1 Market Trends
  - 7.4.2 Market Forecast
- 7.5 Automotive
  - 7.5.1 Market Trends
  - 7.5.2 Market Forecast
- 7.6 Factory Automation
  - 7.6.1 Market Trends
  - 7.6.2 Market Forecast
- 7.7 Others
  - 7.7.1 Market Trends
  - 7.7.2 Market Forecast

## **8 MARKET BREAKUP BY REGION**

- 8.1 North America
  - 8.1.1 United States
    - 8.1.1.1 Market Trends
    - 8.1.1.2 Market Forecast
  - 8.1.2 Canada
    - 8.1.2.1 Market Trends
    - 8.1.2.2 Market Forecast

## 8.2 Asia-Pacific

### 8.2.1 China

#### 8.2.1.1 Market Trends

#### 8.2.1.2 Market Forecast

### 8.2.2 Japan

#### 8.2.2.1 Market Trends

#### 8.2.2.2 Market Forecast

### 8.2.3 India

#### 8.2.3.1 Market Trends

#### 8.2.3.2 Market Forecast

### 8.2.4 South Korea

#### 8.2.4.1 Market Trends

#### 8.2.4.2 Market Forecast

### 8.2.5 Australia

#### 8.2.5.1 Market Trends

#### 8.2.5.2 Market Forecast

### 8.2.6 Indonesia

#### 8.2.6.1 Market Trends

#### 8.2.6.2 Market Forecast

### 8.2.7 Others

#### 8.2.7.1 Market Trends

#### 8.2.7.2 Market Forecast

## 8.3 Europe

### 8.3.1 Germany

#### 8.3.1.1 Market Trends

#### 8.3.1.2 Market Forecast

### 8.3.2 France

#### 8.3.2.1 Market Trends

#### 8.3.2.2 Market Forecast

### 8.3.3 United Kingdom

#### 8.3.3.1 Market Trends

#### 8.3.3.2 Market Forecast

### 8.3.4 Italy

#### 8.3.4.1 Market Trends

#### 8.3.4.2 Market Forecast

### 8.3.5 Spain

#### 8.3.5.1 Market Trends

#### 8.3.5.2 Market Forecast

### 8.3.6 Russia

- 8.3.6.1 Market Trends
- 8.3.6.2 Market Forecast
- 8.3.7 Others
  - 8.3.7.1 Market Trends
  - 8.3.7.2 Market Forecast
- 8.4 Latin America
  - 8.4.1 Brazil
    - 8.4.1.1 Market Trends
    - 8.4.1.2 Market Forecast
  - 8.4.2 Mexico
    - 8.4.2.1 Market Trends
    - 8.4.2.2 Market Forecast
  - 8.4.3 Others
    - 8.4.3.1 Market Trends
    - 8.4.3.2 Market Forecast
- 8.5 Middle East and Africa
  - 8.5.1 Market Trends
  - 8.5.2 Market Breakup by Country
  - 8.5.3 Market Forecast

## **9 DRIVERS, RESTRAINTS, AND OPPORTUNITIES**

- 9.1 Overview
- 9.2 Drivers
- 9.3 Restraints
- 9.4 Opportunities

## **10 VALUE CHAIN ANALYSIS**

## **11 PORTERS FIVE FORCES ANALYSIS**

- 11.1 Overview
- 11.2 Bargaining Power of Buyers
- 11.3 Bargaining Power of Suppliers
- 11.4 Degree of Competition
- 11.5 Threat of New Entrants
- 11.6 Threat of Substitutes

## **12 PRICE ANALYSIS**

## **13 COMPETITIVE LANDSCAPE**

### 13.1 Market Structure

### 13.2 Key Players

### 13.3 Profiles of Key Players

#### 13.3.1 ams-OSRAM AG

##### 13.3.1.1 Company Overview

##### 13.3.1.2 Product Portfolio

##### 13.3.1.3 Financials

#### 13.3.2 Balluff GmbH

##### 13.3.2.1 Company Overview

##### 13.3.2.2 Product Portfolio

#### 13.3.3 Banner Engineering Corp.

##### 13.3.3.1 Company Overview

##### 13.3.3.2 Product Portfolio

#### 13.3.4 Baumer Holding AG

##### 13.3.4.1 Company Overview

##### 13.3.4.2 Product Portfolio

#### 13.3.5 Datalogic S.p.A. (Hydra S.p.A.)

##### 13.3.5.1 Company Overview

##### 13.3.5.2 Product Portfolio

##### 13.3.5.3 Financials

##### 13.3.5.4 SWOT Analysis

#### 13.3.6 Hamamatsu Photonics K.K.

##### 13.3.6.1 Company Overview

##### 13.3.6.2 Product Portfolio

##### 13.3.6.3 Financials

##### 13.3.6.4 SWOT Analysis

#### 13.3.7 Jenoptik AG

##### 13.3.7.1 Company Overview

##### 13.3.7.2 Product Portfolio

##### 13.3.7.3 Financials

#### 13.3.8 Keyence Corporation

##### 13.3.8.1 Company Overview

##### 13.3.8.2 Product Portfolio

##### 13.3.8.3 Financials

#### 13.3.9 Omron Corporation

##### 13.3.9.1 Company Overview

- 13.3.9.2 Product Portfolio
- 13.3.9.3 Financials
- 13.3.9.4 SWOT Analysis
- 13.3.10 Panasonic Holdings Corporation
  - 13.3.10.1 Company Overview
  - 13.3.10.2 Product Portfolio
  - 13.3.10.3 Financials
  - 13.3.10.4 SWOT Analysis
- 13.3.11 Pepperl+Fuchs SE
  - 13.3.11.1 Company Overview
  - 13.3.11.2 Product Portfolio
- 13.3.12 SensoPart Industriesensorik GmbH
  - 13.3.12.1 Company Overview
  - 13.3.12.2 Product Portfolio
- 13.3.13 Sick AG (Sick Holding GmbH)
  - 13.3.13.1 Company Overview
  - 13.3.13.2 Product Portfolio

Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

## List Of Tables

### LIST OF TABLES

Table 1: Global: Colour Detection Sensor Market: Key Industry Highlights, 2023 & 2032

Table 2: Global: Colour Detection Sensor Market Forecast: Breakup by Type (in Million US\$), 2024-2032

Table 3: Global: Colour Detection Sensor Market Forecast: Breakup by End User (in Million US\$), 2024-2032

Table 4: Global: Colour Detection Sensor Market Forecast: Breakup by Region (in Million US\$), 2024-2032

Table 5: Global: Colour Detection Sensor Market: Competitive Structure

Table 6: Global: Colour Detection Sensor Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Colour Detection Sensor Market: Major Drivers and Challenges

Figure 2: Global: Colour Detection Sensor Market: Sales Value (in Billion US\$), 2018-2023

Figure 3: Global: Colour Detection Sensor Market Forecast: Sales Value (in Billion US\$), 2024-2032

Figure 4: Global: Colour Detection Sensor Market: Breakup by Type (in %), 2023

Figure 5: Global: Colour Detection Sensor Market: Breakup by End User (in %), 2023

Figure 6: Global: Colour Detection Sensor Market: Breakup by Region (in %), 2023

Figure 7: Global: Colour Detection Sensor (Colour Sensor) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 8: Global: Colour Detection Sensor (Colour Sensor) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 9: Global: Colour Detection Sensor (Contrast Sensor) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 10: Global: Colour Detection Sensor (Contrast Sensor) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 11: Global: Colour Detection Sensor (Luminescence Sensor) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 12: Global: Colour Detection Sensor (Luminescence Sensor) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 13: Global: Colour Detection Sensor (Other Types) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 14: Global: Colour Detection Sensor (Other Types) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 15: Global: Colour Detection Sensor (Food and Beverage) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 16: Global: Colour Detection Sensor (Food and Beverage) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 17: Global: Colour Detection Sensor (Medical) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 18: Global: Colour Detection Sensor (Medical) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 19: Global: Colour Detection Sensor (Chemical) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 20: Global: Colour Detection Sensor (Chemical) Market Forecast: Sales Value

(in Million US\$), 2024-2032

Figure 21: Global: Colour Detection Sensor (Textile) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 22: Global: Colour Detection Sensor (Textile) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 23: Global: Colour Detection Sensor (Automotive) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 24: Global: Colour Detection Sensor (Automotive) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 25: Global: Colour Detection Sensor (Factory Automation) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 26: Global: Colour Detection Sensor (Factory Automation) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 27: Global: Colour Detection Sensor (Other End Users) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 28: Global: Colour Detection Sensor (Other End Users) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 29: North America: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 30: North America: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 31: United States: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 32: United States: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 33: Canada: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 34: Canada: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 35: Asia-Pacific: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 36: Asia-Pacific: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 37: China: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 38: China: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 39: Japan: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 40: Japan: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 41: India: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 42: India: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 43: South Korea: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 44: South Korea: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 45: Australia: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 46: Australia: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 47: Indonesia: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 48: Indonesia: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 49: Others: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 50: Others: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 51: Europe: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 52: Europe: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 53: Germany: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 54: Germany: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 55: France: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 56: France: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 57: United Kingdom: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 58: United Kingdom: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 59: Italy: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 &

2023

Figure 60: Italy: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 61: Spain: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 62: Spain: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 63: Russia: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 64: Russia: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 65: Others: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 66: Others: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 67: Latin America: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 68: Latin America: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 69: Brazil: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 70: Brazil: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 71: Mexico: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 72: Mexico: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 73: Others: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 74: Others: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 75: Middle East and Africa: Colour Detection Sensor Market: Sales Value (in Million US\$), 2018 & 2023

Figure 76: Middle East and Africa: Colour Detection Sensor Market: Breakup by Country (in %), 2023

Figure 77: Middle East and Africa: Colour Detection Sensor Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 78: Global: Colour Detection Sensor Industry: Drivers, Restraints, and Opportunities

Figure 79: Global: Colour Detection Sensor Industry: Value Chain Analysis

Figure 80: Global: Colour Detection Sensor Industry: Porter's Five Forces Analysis

## I would like to order

Product name: Colour Detection Sensor Market Report by Type (Colour Sensor, Contrast Sensor, Luminescence Sensor, and Others), End User (Food and Beverage, Medical, Chemical, Textile, Automotive, Factory Automation, and Others), and Region 2024-2032

Product link: <https://marketpublishers.com/r/C6066EF10E6AEN.html>

Price: US\$ 3,899.00 (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/C6066EF10E6AEN.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