Air Quality Sensor Market Size, Latest Trends,Research Insights, Key Profile and Applicationsby 20aa

The Air Quality Sensor Market: Monitoring Indoor and Outdoor Air Pollution

Air Quality Sensor Market is Expected to Reach USD 757.05 billion with6.00% CAGR during,2022-2030. The air quality sensor market has seenrapid growth in recent years due to risingconcerns over air pollutionglobally. These sensors monitor the concentrations of harmful pollutantssuch as particulate matter, volatile organic compounds (VOCs), carbonmonoxide, sulfur dioxideand nitrogen oxides in ambient air. They providereal-time data on air quality and are used across residential, commercialand industrial settings as well as in urban air quality monitoring networks.

Key Market Segments

The air quality sensor market can be segmented based on product type,end-use industry and geography. Based on product type, key segmentsinclude:

- Gas Sensors: Measure gases like CO, SO2, NO2, O3, VOCs, etc.Common technologies are electrochemical, metal-oxide-semiconductor, photo-ionization detectors and infrared absorption.
- Particulate Matter Sensors: Measure particulate pollution likePM2.5 and PM10 using technologies like beta attenuation, opticalscattering and active/passive sampling.
- Multi-analyte Sensors: Monitor multiple parameters like PM, gases,humidity and temperature.

Based on end-use industry, key segments are:

- Government Agencies & Academic Institutes: For urban air qualitymonitoring networks and research studies.
- Commercial & Residential Buildings: Monitor indoor air qualityacross offices, public spaces, homes, etc.
- Industrial Facilities: Monitor air emissions, ambient air quality andworker exposure levels.
- Smart Cities: Deployed across cities for urban air pollution mappingand modeling.

Key Players

Major companies in the air quality sensor market include:

- Honeywell: Offers gas, particulate matter and multi-analyte sensors.
- Teledyne Technologies: Sensors for VOCs, sulfur dioxide, nitrogendioxide and more.
- Siemens: Air quality monitoring systems and networks.
- Emerson Electric: Sensors for carbon monoxide, particulate matter, VOCs, etc.
- General Electric: Air quality monitoring systems and software solutions.
- 3M: Particulate matter sensors and air quality monitoring equipment.
- Horiba: Ambient air quality monitoring stations and portable gas detectors.

Market Drivers

Key factors driving growth in the air quality sensor market:

- Government Regulations: Air quality standards and norms set by environmental agenciesare increasing adoption of air quality sensors.
- Health Concerns: Rising air pollution levels and associated health risks are boosting demand for air quality monitors.