netvox

LoRaWAN Sensors
Provide Localized Data for Air Quality Monitoring

Netvox air quality sensors monitor the levels of various gases or pollutants in the air that can be harmful to living organisms if present at high levels. The data is then sent to the gateway and network server periodically for monitoring, and if the concentrations are too high, staff members will be able to see the readings and handle the situations in time.

(The air quality sensors are compliant with LoRaWAN V1.0.2 specification, and they have been CE RED, FCC, IC and TELEC certified.)

Examples of Applications 1

Monitoring : CO2 (Carbon dioxide) / PM2.5 (fine particles)
Applicable places : airports / malls / crowded places .....
Recommended sensors：

【RA0715】CO2 / Temperature / Humidity Sensor
【RA0716】PM2.5 / Temperature / Humidity Sensor

High levels of carbon dioxide stimulate the respiratory center and may cause headaches and dizziness. High levels of PM2.5 impair lung function. As a result, it is important to monitor the air quality in indoor public places where there are often a lot of people with Netvox LoRaWAN CO2 and PM2.5 sensors in order to maintain a comfortable indoor environment.

Monitoring : NO (Nitric oxide) / NO2 (Nitrogen dioxide)
Applicable places : steelworks/metallurgical plants/thermal power plants/chemical plants....
Recommended sensors：

【R718PA2】 **Wireless NO Sensor**
【R718PA5】 **Wireless NO2 Sensor**

Nitrogen oxides (NOx), which consist primarily of nitric oxide (NO) and nitrogen dioxide (NO2), are often generated when the nitrogen in the air or the nitrides in the fuel are burned and oxidized at high temperature. Nitrogen oxides have an adverse impact on the environment, and they may lead to respiratory failures as well.
Netvox LoRaWAN NO and NO2 sensors monitor the levels of nitrogen oxides in the facilities where nitrogen oxides may be generated and help users create pollution control policies based on the data collected.
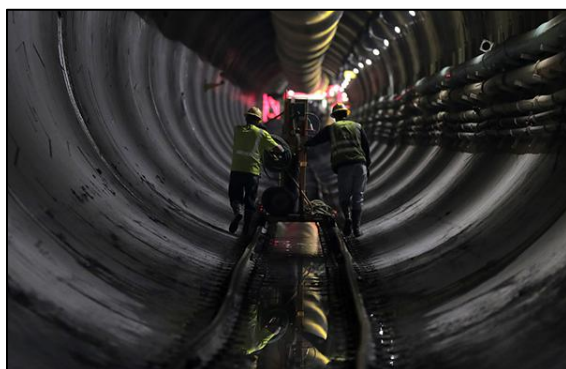
Monitoring : H2S (Hydrogen sulfide)
Applicable places : waste water treatment plants / sewers / leather factories......
Recommended sensor：

【R718PA4】 **Wireless H2S Sensor**

Exposure to low concentrations of hydrogen sulfide can irritate eyes, nose or throat. Exposure to high concentrations of hydrogen sulfide can cause respiratory distress or respiratory arrest. Netvox R718PA4 H2S sensor reports the levels of hydrogen sulfide periodically, and the Network Server can alert users to leaks and reduce the negative impacts.

Examples of Applications 4

Monitoring : CO (carbon monoxide)
Applicable places : restaurants / enclosed parking garages......
Recommended sensor：

【RA0701】 Wireless CO Sensor

Carbon monoxide is generated from the incomplete combustion of coal, natural gas, and oil. Increased CO concentrations may cause headaches, dizziness and nausea, and excess exposure of CO can result in death. With Netvox CO sensors, users can make sure that the levels of CO are within the safety limits.
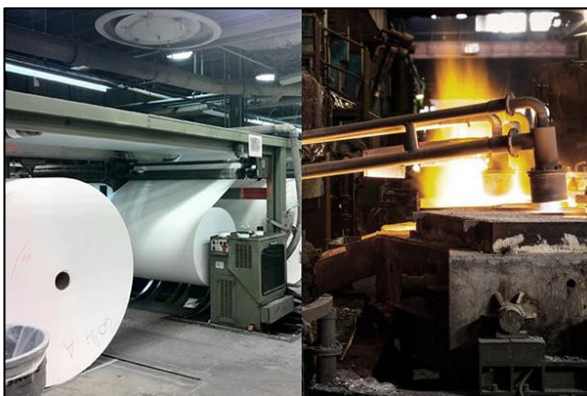
Examples of Applications 5

Monitoring : SO2 (Sulfur dioxide)
Applicable places : copper smelting plants / power plants / paper industry......
Recommended sensor：

【R718PA6】 Wireless SO2 Sensor

Sulfur dioxide is a common pollutant in the atmosphere. Like the nitrogen oxides, sulfur dioxide contributes to the formation of acid rain and affects the lung function. R718PA6 monitors the concentrations of SO2 in the surrounding area and helps users establish measures to reduce pollution.

Monitoring : O3 (Ozone)
Applicable places : schools / offices...
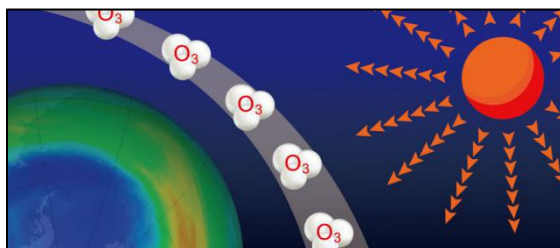**Recommended sensor：**

【**R718PA3**】**Wireless O3 Sensor**

Ozone can be effective to kill airborne bacteria, but it can also damage the lungs when inhaled. Primary sources of indoor ozone would be devices that utilize ultraviolet light or ionize air molecules such as printers, photocopiers and ozone air purifiers. Netvox O3 Sensor monitors the levels of ozone for improved air quality monitoring.

Netvox LoRaWAN Air Quality Sensor Series:
R718PA2: Wireless Nitric Oxide NO Sensor
R718PA3: Wireless Ozone O3 Sensor
R718PA4: Wireless Hydrogen Sulfide H2S Sensor
R718PA5: Wireless Nitrogen Dioxide NO2 Sensor
R718PA6: Wireless Sulfur Dioxide SO2 Sensor
RA0701: Wireless Carbon Monoxide CO Sensor
RA0715: Wireless CO2/Temperature/Humidity Sensor
RA0716: Wireless PM2.5/Temperature/Humidity Sensor
Stay tuned for more Netvox LoRaWAN air quality sensors!

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