Building sustainable future

# Environmental Sensor

**(AJV-IOT-ENV-001)**

## Introduction

Ajeevi's Environmental Sensor is designed to monitor the Ambient air, Temperature, CO2, CO, NO2, O3, SO2, Noise, Weather etc.

AJEEVI Smart Environment Sensors device able to communicate over WiFi, GSM (3G & 4G) and on wired technology and easily access Third party for Raw data & Computed data. Environment Sensors gather data about pollution, ambient conditions (temperature and humidity), levels of gases in the city (pollution) and any other events on an hourly and subsequently daily basis.

Device Measurement elements - Temperature, Humidity, Light, Noise, Rain Gauge Sensor CO, NO2, O3, SO2, PM2.5, PM10, CO2, UVa, UVb.

It alerts when any pollutant crossing the breakpoint level for PM 2.5,PM 10,SO2,NO2 ,O3,CO,AQI and noise & automatically push encrypted data into a secure server.

## Uses

Environmental Sensor used to monitor the Temperature, Noise, Weather & gases which present in air (CO2, CO, NO2, O3, SO2 etc.). It gather data about pollution, ambient conditions levels of gases in the city (pollution) and any other events on an hourly and subsequently daily basis, & if the pollutant crossing the breakpoint level ( PM 2.5,PM 10,SO2,NO2 ,O3,CO,AQI and noise) the sensor automatically alerts.

Ajeevi Environmental sensor helps to maintain & monitor the real time information of Present gases in the environment.

## Features

- Environmental Sensor automatically push encrypted data into a secure server.
- Automatically alerts for device working on battery/mains.
- Automatic alerts when any pollutant crossing the breakpoint level for PM 2.5,PM 10,SO2,NO2 ,O3,CO,AQI and noise.
- The Enclosure of Ajeevi Environmental Sensor is IP 65 rated to sustain in harsh Environment.
- Environment Sensor capable to communicate over various modes r WiFi, GSM (3G & 4G) and on wired technology.
- It supports the Micro SIM and MicroSD card .

Specifications are subject to change without notice. Ajeevi is a registered trademark of Ajeevi Technologies Pvt Ltd. For any smart solution inquiries, connect at presales@ajeevi.com.
#505, Tower A1, Corporate Park, Noida – 201301. www.ajeevi.com

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## Specifications:

| S# | Parameter | Remarks |
|---|---|---|
| **A** | **General** | |
| 1 | Microcontroller | 32bit Microcontroller,64kb Program memory 20kb RAM. |
| 2 | Operating Temperature | -10°C to +100°C. |
| 3 | Battery Charging Voltage /current (Max.) | 4.2±0.03v/0.5C5A ,weight 45.0±2.0g |
| 4 | Environment sensor | Frequency 13.56 MHz, Power supply 3.3v, Support ISO/ICE14443/NFC standard |
| **B** | Carbon Dioxide (CO2) Gas Detectors | |
| 5 | Detection Technology | Non-dispersive Infrared (NDIR) |
| 6 | Relative Density (vs. Air) | Heavier (1.98 Kg/m3) |
| 7 | SENSOR MEASUREMENT RANGE IN TWA, STEL, PEL | 5000 ppm ,30,000 ppm ,5000 ppm |
| 8 | Combustible | No |
| **C** | Carbon monoxide (CO) Sensor | |
| 9 | Detection Technology | Electrochemical |
| 10 | Relative Density (vs. Air) | Slightly Lighter (1.14 Kg/m3) |
| 11 | Combustible | YES |
| 12 | SENSOR MEASUREMENT RANGE IN LEL (% by Vol) , TWA, PEL | 12.0, 25 ppm, 1000ppm |
| **D** | NO2 (Nitrogen dioxide) sensor | |
| 13 | Operating Humidity Range | 15 to 95% RH(0 to 100% non-condensing intermittent) |

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| | | |
|---|---|---|
| 14 | Relative Density (vs. Air) | Heavier (1.98 Kg/m3) |
| 15 | SENSOR MEASUREMENT RANGE | 0~10 ppm |
| 16 | Combustible | No |
| **E** | AJEEVI SO2 SENSOR MODULE | |
| 17 | Detection Gas | Sulfur dioxide (SO2) |
| 18 | Detection Range | 0～2000ppm |
| 19 | Zero drift(-20°C～40°C) | ≤0.2ppm |
| 20 | Temperature range | -20°C～100°C |
| 20 | Humidity range | 15 % ~ 100 % RH |
| **F** | OZONE O3 SENSOR DEVICE | |
| 21 | Range | 0-1000 ppb |
| 22 | Noise /ppm | <0.001 |
| 23 | Precision | <0.002to 0.1 ppm |
| 24 | Temperature range | 0°C～100°C |
| 25 | Humidity range | 15 % ~ 100 % RH |
| **G** | UVa & UVb SENSOR MODULE DEVICE | |
| 26 | Working Range | up to 15mW / cm2 |
| 27 | Detector | GaAsP photodiode |
| 28 | Thermal Drift of Output | (-20 to +50°C) - 0.025mV/°C max |