

Vape Detector

Featuring LoRaWAN®

GS601

Milesight



GS601 is a LoRaWAN® vape detector designed to identify vaping and smoking events and send alerts. Equipped with a suite of powerful embedded sensors, GS601 simultaneously measures temperature, humidity, TVOC, and PM parameters.

When environmental changes reach the preset thresholds, the detector activates both the LED light alarm and buzzer sound alarm.

In addition to local alerts, GS601 can also remotely report the air quality status and alarm messages via LoRaWAN® technology. By integrating with Milesight LoRaWAN® gateway and Milesight Development Platform, users can visually monitor all sensor data and manage the device remotely.

GS601 seamlessly blends into various installation environments, making it ideal in restrooms, changing rooms, classrooms, stairwells, apartments and other locations.

◆ Features

- Integrated with multiple sensors to detect vape, smoke, TVOC, temperature, humidity, and PM parameters
- Supports anti-water vapor disturbance and other gas interference, with interference information reported
- Equipped with a buzzer and indicator to signal when the device is powered, faulty, alarmed, or

in an invalid status

- Supports setting the buzzer hibernate time to avoid false alarms during deployment
- Equipped with a vibration sensor to detect acts of vandalism or tampering
- Supports management and OTA upgrades via Milesight Development Platform
- Built-in NFC for easy configuration
- Compatible with standard LoRaWAN® gateways and network servers

◆ Specifications

Wireless Transmission

| | |
|-------------|---|
| Technology | LoRaWAN® |
| Frequency | RU864/IN865/EU868/US915/AU915/KR920/AS923-1&2&3&4 |
| Tx Power | 16dBm (868MHz)/22dBm(915MHz) |
| Sensitivity | -137dBm @300bps |
| Mode | OTAA/ABP Class C |

Sensors

Temperature

| | |
|---------------------|------------------------------------|
| Operating Principle | Digital CMOSens® technology (MEMS) |
| Range | -20°C ~ 60°C |
| Accuracy | ± 0.2°C |
| Resolution | 0.1°C |

Humidity

| | |
|---------------------|------------------------------------|
| Operating Principle | Digital CMOSens® technology (MEMS) |
| Range | 0% ~ 100% RH |
| Accuracy | ± 2% RH |
| Resolution | 0.5% RH |

Vape Index

| | |
|---------------------|------------------|
| Operating Principle | Laser Scattering |
| Range | 0 ~ 100 |
| Accuracy | ±10 |
| Resolution | 1 |

TVOC

| | |
|---------------------|---|
| Operating Principle | MOX (MEMS) |
| Range | 0 ~ 2000 µg/m³ |
| Accuracy | 20 µg/m³ ±15% of readings (1 ~ 500 µg/m³) |

| | |
|-------------------------------------|---|
| Resolution | 1 $\mu\text{g}/\text{m}^3$ |
| PM1.0 & PM2.5 & PM10 | |
| Operating Principle | Laser Scattering |
| Range | 0 ~ 1000 $\mu\text{g}/\text{m}^3$ |
| PM1.0&PM2.5 | 0~100 $\mu\text{g}/\text{m}^3$: $\pm 10 \mu\text{g}/\text{m}^3$ |
| Accuracy | 100~1000 $\mu\text{g}/\text{m}^3$: $\pm 10 \%$ of measured value |
| PM10 Accuracy | 0~100 $\mu\text{g}/\text{m}^3$: $\pm 25 \mu\text{g}/\text{m}^3$ 100~1000 $\mu\text{g}/\text{m}^3$: $\pm 25 \%$ of measured value |
| Resolution | 1 $\mu\text{g}/\text{m}^3$ |
| Others | |
| Button | 1 × Reset Button |
| LED & Buzzer | 1 × Status/Alarm Indicator + 1 × Buzzer (70dB@1m) |
| Configuration | Mobile App via NFC |
| Physical Characteristics | |
| Power Supply | 5V/1A by Type-C Port or (Optional) PoE Splitter |
| Operating Temperature | -5°C ~ 45°C |
| Relative Humidity | 0 ~ 95% (non-condensing) |
| Ingress Protection | IP30 |
| Dimension | $\Phi 128 \times 40 \text{ mm}$ ($\Phi 5.04 \times 1.57 \text{ in}$) |
| Installation | Ceiling Mounting |