

VOCs Detector

Specifications

Product model: SDL511

Version: V1.5



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Overview

SDL511 hand-held VOCs measuring instrument is developed based on the principle of photoionization (PID), with high precision and strong anti-interference ability. It can measure the concentration of VOCs in the gas without destroying the sample gas. By matching the 4G communication module and GPS positioning The module can upload the real-time measured dust concentration and current location data to the cloud server for display and data analysis.

Features

- Accurate data: PID photoionization technology, high precision, strong anti-interference ability, does not destroy the gas to be measured, and can realize continuous real-time detection;
- Stable flow rate: High-performance brushless vacuum sampling pump with stable flow rate, which can satisfy long-distance and high negative pressure sampling;
- Data calibration: online calibration;
- Fast response: data update frequency is 1Hz ;
- Data upload: data can be equipped with a 4G Internet access module, and with GPS+ Beidou positioning module, the data

can be uploaded to the cloud platform, which can be used for data analysis and display;

- Hose design: external hose can be connected to facilitate integrated testing.

Scope of application

Suitable for industrial and occupational hygiene investigations, indoor air quality investigations, outdoor environmental monitoring, point source monitoring, engineering control evaluation, remote monitoring;

It is suitable for the purification effect test of indoor air purifiers, car air purifiers, and fresh air systems;

Home, office, club, college classroom, hotel room, hospital ward, car, laboratory and other places.

Working principle

The SDL511 hand-held VOCs measuring instrument works on the principle of photoionization (PID): the sensor is composed of ultraviolet light source and ion chamber and other main parts. There are positive and negative electrodes in the ion chamber to form an electric field. Under the excitation of the ultraviolet light source, negative electrons and positive ions are

generated. These ionized particles form a current between the electrodes. After being amplified and processed by the detector, the current signal is output. Then, according to the professional calibration technology, the mass concentration consistent with the official unit is finally obtained.

Technical indicators

No.	Project	Parameter	Remark
1	Measurement output	VOCs	
2	Range	VOCs : 0-40ppm	
3	power input	DC16.8V /1A charger	
4	rated power	5W	
5	sleep power	0.24W	
6	range of working temperature	0-60 °C	
7	humidity range	0-99%RH , no condensation	
8	working atmospheric pressure	86KPa~110KPa	
9	Response time	≤ 3s	
10	battery capacity	3400mAh	Can work more than 9 hours

11	communication	USB and IoT Stored data can be accessed through the USB interface or Cloud platform export	
12	resolution	1ppb	
13	repeatability	$\leq 5\%$	
14	Product Size	225x103x68mm	Gas sampling probe not included
15	life	3 years	below 40 °C

Operation Guide



- Gas sampling probe: collect the gas to be measured, and ensure that it is unobstructed when the instrument is working.
- Display screen: display VOCs value, concentration curve, electricity, time, temperature and humidity value,

latitude and longitude, network information and other data.


- Control panel:


Power key : press and hold this key for about two seconds to turn on the machine, after turning on the machine, press and hold this key for about two seconds to turn off the machine;



Switch key : used to switch the function of the instrument;



Pause / Run key : Used to pause / run the detection function of the instrument. 

The logo in the upper left corner of the display interface means that the device is connected to 4G , the device is connected to the Internet, and the measurement data is uploaded to the cloud server. 

【Interface 1】



After starting up, enter the measurement interface, where the VOCs concentration can be detected;



Press the "Pause / Run key" to pause or run the data acquisition function of the instrument.

【Interface 2】



Press the "Switch key" to switch to display the real-time VOCs concentration curve and other operating information of the

equipment.

Data storage and export

SDL511 supports data storage and export functions, and the device can export historical data through PC configuration software or cloud platform.

Data calibration

Online Calibration

Cloud data viewing

Users can query the real-time uploaded data and historical data of the device through the Nuofang cloud server and the QR code of the device (see the sticky note on the back of the device for the QR code). Both the PC terminal and the mobile terminal can realize the data viewing function.

Product specification



Packing List

SDL511 *1

Charger *1

Data cable *1

Filter element *2

Manual *1

Certificate *1

Warranty card *1

Product Size

Main unit appearance size: 225*103*68 mm (including sampling probe)

Product packaging size: 345*268*120mm

Product weight

Host weight: 0.68kg

Total weight: 2.2kg

Contact

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