

# Invisible Gas



# Visualize Record

## The CL-200 Series Indoor Air Quality Data Logger

IoT  
Multiple

RJ-45 with POE  
Power Supply

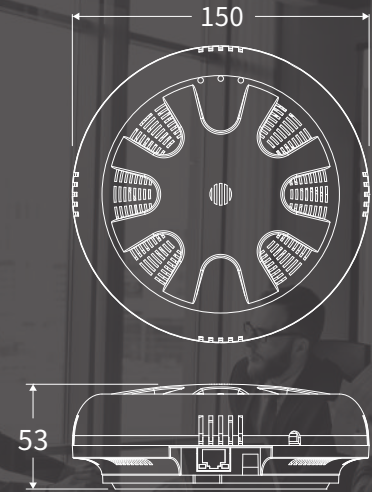
MQTT  
Protocol

# Do You Know Indoor Air Pollution may be around You ?

**CL-200** series is an indoor air quality (IAQ) data logger; it not only provides temperature and humidity measurement, but you can also choose another gas measurement on demand, for example, CO, CO<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, HCHO, TVOC.

CL-200 series have built-in memory and can store up to 450,000 records which converts the demand for 312-days environmental records. Besides, it provides 24/7 gathering data and multiple interfaces, and the mechanism is reliable and easy installation.

Simultaneously, it also supports MQTT communication protocol, and its hardware architecture can combine with other equipment in various indoor environmental safety demands.



Unit : mm



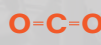
IP 20



Humidity



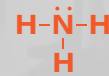
Temperature



CO<sub>2</sub>



CO



NH<sub>3</sub>



H<sub>2</sub>S



HCHO



TVOC



PM2.5



Ethernet



Bluetooth



RS-485

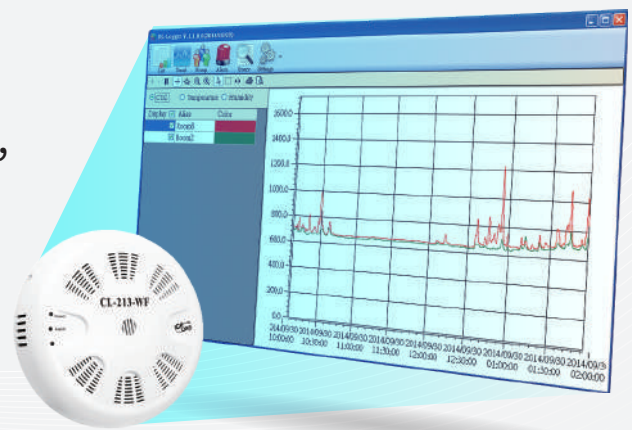


WiFi

## 24/7 Monitoring

The CL-200 series make harmful gas into visual records via DL-300 Utility, the management software.

The CL-200 series can be used with the free software of ICP DAS, the DL-300 Utility, which can execute grouping for several CL-200 modules. It is practical and convenient to monitor and manage the data and convert it into a CSV file.

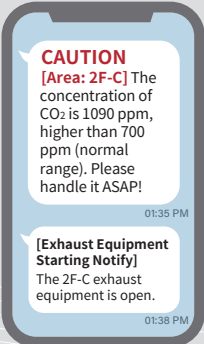


# IAQ Visualization Solution



## IoT Cloud Management Software

IoTstar is a remote I/O module management software that provides the solution from terminal to cloud. Besides, it can help you create a cloud dashboard easily.



## Intelligent IIoT Edge Controller WISE-5231M-4GE



The CL-200 series provides IoT communication function, can be easily integrated into HMI or SCADA systems. With ICP DAS intelligent edge controller WISE-5231, it can create an one-stop environmental monitoring and controlling service by Web.

With the CL-200 series, the ALM-Horn series goes off if the air quality exceeds safety value, and the real-time data can display on iKAN.

MQTT / Modbus



IAQ Data Logger CL-200 Series

Modbus I/O Module M-7026-G



Alarm Siren Module ALM-Horn-MRTU



Industrial LED Display iKAN-208



HMI TPD-433-H

Exhaust Equipment



TPD series can display the real-time environmental data on the panel and connect with on-off of exhaust equipment.

# Applications



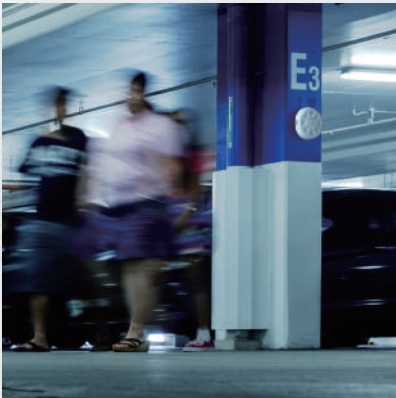
## CO<sub>2</sub> Monitoring for Indoor Environment

People always spend about 80% to 90% time on indoor activities every day, and the high indoor concentration of CO<sub>2</sub> can cause people to get carbon dioxide poisoning if inhaled too much. According to Indoor Air Quality Act, if the indoor area is less than or equal to 2,000 m<sup>2</sup>, the number of inspection points shall be at least five that you have to install. ICP DAS provides the CL-200 series with WISE-5231 to monitor the concentration of CO<sub>2</sub>, display the real-time data on the iKAN, and trigger the ventilating equipment if it exceeds the limit. Therefore, It can help you monitor the real-time data and keep the air quality in time.



## CO Monitoring for Indoor Heated Swimming Pool

In winter, harmful gas poisoning events usually happen in indoor heated swimming pools. For example, CO can sometimes escape from the boiler system by burning incompletely, which might cause people to get carbon monoxide poisoning if inhaled for too long. To prevent the dangers, ICP DAS provides CL-200 series to monitor the value of CO with ALM-04-MRTU, which is a MP3 alarm module in multiple languages. If the gas value exceeds, alarm modules will warn immediately to ensure your safety.



## Air Monitoring for Enclosed Parking Lot

Nowadays, most parking lots are located underground of tall buildings or supermarkets to solve limited outside parking spaces problems. If exhaust equipment does not operate completely, people easily breathe in harmful gases from cars in enclosed spaces. To collect the air quality data, ICP DAS provides the CL-200 series to monitor TVOC, CO, PM<sub>2.5</sub>, etc. The iKAN series can display the air quality data in time and connect with WISE-5231, which can automatically switch on exhaust equipment if the harmful gases are high concentration.



## Concentration Warning from Indoor TVOC and HCHO

TVOC and HCHO, Group 1A carcinogens, are from adhesive additives in the material of manufacturing, decorative, and furniture. Do you know HCHO can also cause artifacts damage? ICP DAS provides CL-200 series to monitor the concentration of TVOC and HCHO. Besides, the CL-200 series can connect with WISE-5231, which can issue a warning or trigger the ventilating equipment to keep spaces well-ventilated.

# Product Series

# CL-2

# X

# X

# -

# X

**Particle Matter Sensor**

**Types of Fume Sensor**

**Communication**

**0** -  
**1** PM 2.5

**1** CO  
**2** CO<sub>2</sub>  
**3** CO+CO<sub>2</sub>  
**4** HCHO+TVOC  
**5** NH<sub>3</sub>  
**6** H<sub>2</sub>S  
**7** HCHO  
**8** TVOC

**E** Ethernet (PoE)  
**BLE** Bluetooth  
**WF** Wi-Fi

Models			Sensor Type			Accessory	Power		
Ethernet PoE	Bluetooth	Wi-Fi	Harmful Gas	Particulate Matter (PM)	Temperature & Humidity	Filter	Power from Terminal Block	Consumption (Max.)	
								PoE	Non-PoE
CL-201-E	CL-201-BLE	CL-201-WF	CO	-	Yes	-	+12 to +48 VDC	1.5 W (Max.)	1.6 W (Max.)
CL-202-E	CL-202-BLE	CL-202-WF	CO <sub>2</sub>					1.5 W (Max.)	1.6 W (Max.)
CL-203-E	CL-203-BLE	CL-203-WF	CO+CO <sub>2</sub>					1.6 W (Max.)	1.7 W (Max.)
CL-204-E	CL-204-BLE	CL-204-WF	HCHO + TVOC					1.9 W (Max.)	2.0 W (Max.)
CL-205-E	CL-205-BLE	CL-205-WF	NH <sub>3</sub>					1.6 W (Max.)	1.7 W (Max.)
CL-206-E	CL-206-BLE	CL-206-WF	H <sub>2</sub> S					1.6 W (Max.)	1.7 W (Max.)
CL-207-E	CL-207-BLE	CL-207-WF	HCHO					1.9 W (Max.)	2.0 W (Max.)
CL-208-E	CL-208-BLE	CL-208-WF	TVOC					1.9 W (Max.)	2.0 W (Max.)
CL-210-E	CL-210-BLE	CL-210-WF	-	PM2.5	Yes	Replaceable (FLT-C001)	2.5 W (Max.)	2.65 W (Max.)	
CL-211-E	CL-211-BLE	CL-211-WF	CO				2.66 W (Max.)	2.73 W (Max.)	
CL-212-E	CL-212-BLE	CL-212-WF	CO <sub>2</sub>				2.9 W (Max.)	3.22 W (Max.)	
CL-213-E	CL-213-BLE	CL-213-WF	CO+CO <sub>2</sub>				3.24 W (Max.)	3.41 W (Max.)	

<b>Mechanical</b>	<b>Installation</b>	Ceiling / Wall Mounting (+External Wall Box EWB-C150)
	<b>Dimensions (mm)</b>	Ø 150 x H 53
<b>Environmental</b>	<b>Operating Temperature</b>	0 ~ 50°C
	<b>Storage Temperature</b>	-30 ~ +75°C
	<b>Humidity</b>	10 % to 90 % RH, Non-condensing
<b>System</b>	<b>Alarm</b>	PM2.5 / RH / Temperature
	<b>Real Time Clock</b>	Yes
	<b>Data Logger</b>	Yes, up to 450,000 records

CE FC



Sensor	Range and Descriptions	Sensor	Range and Descriptions
CO	0 ~ 1000 ppm	H <sub>2</sub> S	0 ~ 100 ppm
CO <sub>2</sub>	0 ~ 9999 ppm (NDIR)	PM2.5	0 ~ 400 µg/m <sup>3</sup> ; Resolution: 1µg/m <sup>3</sup>
HCHO	0 ~ 2000 ppb	Temperature	-10°C ~ 50°C / Accuracy: ±0.6°C
TVOC	0 ~ 60000 ppb (MEMS)	Humidity	0 ~ 100 % RH / Accuracy: ±5% RH
NH <sub>3</sub>	0 ~ 100 ppm		

# Related Products

## Industrial LED Display



### iKAN Series

- 7 text colors
- Support multiple languages



## Alarm Siren Module

### ALM-Horn-MRTU

- Piezo Transducer Alarm Siren
- Support Wi-Fi, RS-485 interface

## HMI



### TPD Series

- Touch HMI device
- Support Ethernet, RS-485 interface



## Edge Controller

### WISE Series

- IF-THEN-ELSE logic control
- Remote monitoring and notification

## SCADA

### AVEVA™ Edge

#### AVEVA Edge

- Graphic control software
- Web function and real-time data
- Support types of protocols

## Management Software



#### IoTstar

- Browser operation
- No programming required
- Provide the Public Cloud installation

## Cloud Dashboard



#### ExoWISE

- Provide customized and templated service

## Accessories



**Filter Patch**  
FLT-C001

Ø 16 mm ; 4 pcs/bag



**External Wall Box**  
EWB-C150

Ø 120 x H 45 mm



**Bending RJ-45 Connection**  
CA-RJ45-04

30 cm



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