www.sensoronic.com

Particulate Matter & Air Quality IoT Monitoring System

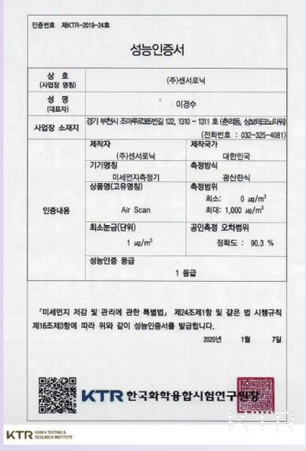
Sensoronic
Analysis & Instrument Solution

Indoor

Air Scan

Indoor Particulate Matter And Air Quality
(Installable type/portable type)

Air scan get the high accuracy in approval.
This analyzer can measure PM2.5, PM10, CO2, HCHO, TVOC etc. at the same time.


성능인증서

KTR 한국화학융합시험연구원장

- ✔ 1 Grade quality & the excellent quality certificate
- ✔ Customizing according to user
- ✔ Fast response time
- ✔ Environmental monitoring system & solution
- ✔ Continuous measurement and monitoring in real-time
- ✔ High accuracy on the approval
- ✔ Various communication
- ✔ Wi-Fi and Ethernet
- ✔ IoT technology
- ✔ Calibration function

Specification

Display	3.5inch TFT-Color LCD Touch Screen
Display Interval	1sec (average : 6secs)
Save Interval	User can set according to usage. 6secs, 1min, 5mins, 1hour
Output	RS232/485, USB, Ethernet, LTE, Wi-Fi *Option : Color alarm lamp (color change)
Flowrate	600cc/min
Operating Condition	Temp : -20~60℃ Humidity: 0~95%RH
Dimension	110mm(W) x 160mm(H) x 55mm(D)
Power	DC 12V
Weight	900g

1 Grade Certificate

No.	KTR-2019-24
Repeatability	97.7%
Relative Accuracy	98.7%
Data Acquisition	100%
Accuracy	90.3%
Coefficient of Determination	0.93
Final Grade	1 Grade

*User can customize according to user`s usage.
If you need other gases, please contact to head office

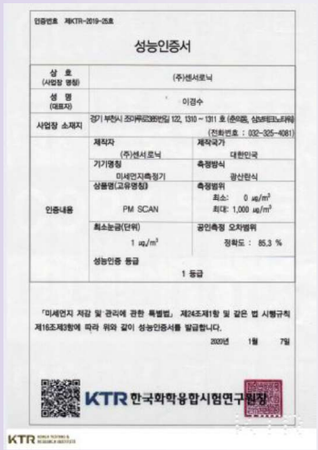
PM2.5	Principle	Light scattering method
	Range	0~1,000μg/m³
	Accuracy	0~35μg/m³: ±5μg/m³ 36~100μg/m³: ±10μg/m³ 101~1,000μg/m³: ±10% reading
PM10	Principle	Light scattering method
	Range	0~1,000μg/m³
	Accuracy	0~100μg/m³: ±15μg/m³ 101~1,000μg/m³: ±15% reading
	Resolution	1μg/m³
	Response Time (T90)	1sec
CO2	Principle	NDIR (Non-Disperse Infrared Detector)
	Range	0~5,000ppm / 0~10,000ppm
	Accuracy	±2%FS
	Response time (T90)	<20sec
HCHO	Sensor type	Electrochemical Sensor
	Range	0~1,000μg/m³
	Accuracy	±6%FS
	Response Time (T90)	<20sec
TVOC	Sensor type	Semiconductor *Option : PID10.6eV
	Range	0~10,000μg/m³ *Option : 0~23,0000μg/m³
	Accuracy	±2%FS
	Response Time (T90)	3sec
Temp.	-40~125℃	
Humidity	0~100%RH	
Option	CO, NO2, O3, SO2, H2S etc.	

Outdoor

PM SCAN

Outdoor Air Quality & Atmospheric environment

PM SCAN is outdoor air quality analyzer.
It can fuse with atmospheric environment such as GPS, noise, wind direction/speed etc. including PM2.5 and PM10.


성능인증서

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- ✔ 1 Grade quality & the excellent quality certificate
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- ✔ Fast response time
- ✔ Environmental monitoring system & solution
- ✔ Continuous measurement and monitoring in real-time
- ✔ Offer protocol
- ✔ Wi-Fi and Ethernet
- ✔ IoT technology
- ✔ Auto control temperature and humidity
- ✔ Waterproof and auto heating function
- ✔ PM + atmospheric environment

Specification

Display	3.5inch TFT-Color LCD Touch Screen *Option : 4inch FND electronic board
Display Interval	1sec (average : 6secs)
Save Interval	User can set according to usage. 6secs, 1min, 5mins, 1hour
Output	RS232/485, USB, Ethernet, LTE, Wi-Fi
Alarm	RGB *Option : Color alarm lamp (color change)
Flowrate	600cc/min
Inlet	Auto control temperature and humidity
Operating Condition	Temp : -20~60℃ Humidity: 0~95%RH
Dimension	110mm(W) x 160mm(H) x 55mm(D)
Power	AC220V/50~60Hz
Power Consumption	8W (normal) 20W (heating)
Weight	5kg

*User can customize according to user`s usage.
If you need other gases, please contact to head office

PM2.5	Principle	Light scattering method
	Range	0~1,000μg/m³
	Accuracy	0~35μg/m³: ±5μg/m³ 36~100μg/m³: ±10μg/m³ 101~1,000μg/m³: ±10% reading
PM10	Principle	Light scattering method
	Range	0~1,000μg/m³ (or 30,000 μg/m³)
	Accuracy	0~100μg/m³: ±15μg/m³ 101~1,000μg/m³: ±15% reading
PM2.5, PM10	Resolution	1μg/m³
	Response Time (T90)	1sec
Temp.	-40~125℃	
Humidity	0~100%RH	
Option	Particulate Matter : PM1.0, PM2.5, PM10, TSP Gas : CO, NO2, O3, H2S, NH3, VOCs, SO2 etc. Weather conditions : Temperature, Humidity, Wind direction, wind speed, atmospheric pressure, Ultraviolet rays, Vibration, Noise etc. Location : GPS	

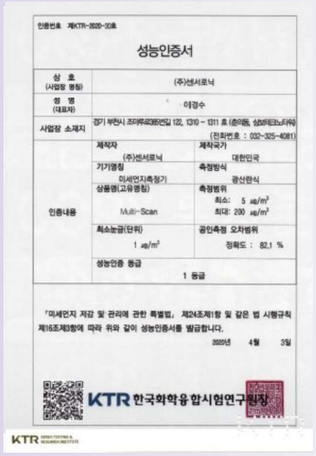
Field installation picture

Indoor & Outdoor

Multi-scan

Portable Indoor & Outdoor Air Quality Analyzer

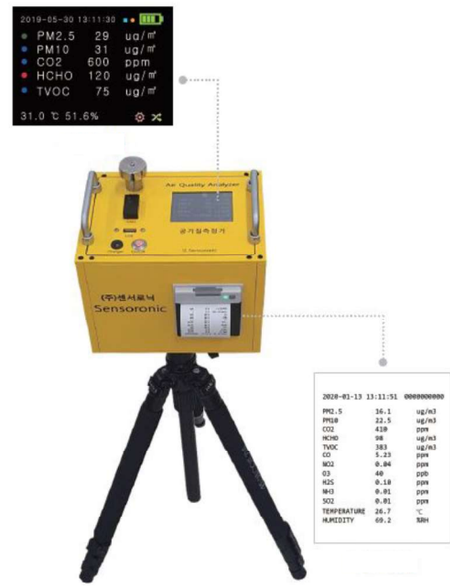
Multi-scan is portable analyzer which can measure up to 14 items. It is designed to measure anywhere user want to.



- ✔ 1 Grade quality & the excellent quality certificate
- ✔ Customizing according to user
- ✔ Fast response time
- ✔ Environmental monitoring system & solution
- ✔ Continuous measurement and monitoring in real-time
- ✔ Built-in mini printer
- ✔ Built-in battery
- ✔ IoT technology
- ✔ Calibration function

Specification

Display	3.5inch TFT-Color LCD Touch Screen
Display Interval	1sec (average : 6secs)
Save Interval	User can set according to usage. 6secs, 1min, 5mins, 1hour
Output	RS232/485, USB, Ethernet
Flowrate	600cc/min
Operating Condition	Temp : -20~60℃ Humidity: 0~95%RH
Printer	Built-in mini printer
Battery	Lithium Ion Battery Charger (7.8a)
Dimension	210mm(W) x 180mm(H) x 170mm(D)
Power	DC 12V
Weight	2kg



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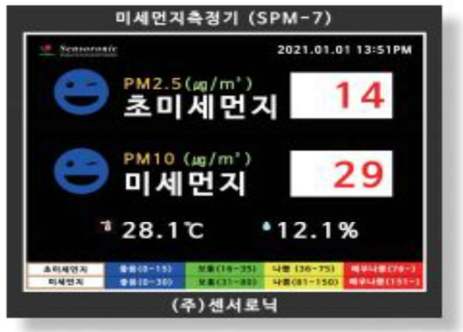
PM10	Principle	Light scattering method
	Range	0~1,000μg/m³
	Accuracy	0~100μg/m³: ±15μg/m³ 101~1,000μg/m³: ±15% reading
	Resolution	1μg/m³
	Response Time (T90)	1sec
CO2	Principle	NDIR (Non-Disperse Infrared Detector)
	Range	0~5,000ppm / 0~10,000ppm
	Accuracy	±2%FS
	Response time (T90)	<20sec
HCHO	Sensor type	Electrochemical Sensor
	Range	0~1,000μg/m³
	Accuracy	±6%FS
	Response Time (T90)	<20sec
TVOC	Sensor type	Semiconductor *Option : PID10.6eV
	Range	0~10,000μg/m³ *Option : 0~23,0000μg/m³
	Accuracy	±2%FS
	Response Time (T90)	3sec
Temp.	-40~125℃	
Humidity	0~100%RH	
Option	CO, NO2, O3, SO2, H2S etc.	

Indoor & Outdoor

SPM-7

Installable Indoor & Outdoor Air Quality Analyzer



SPM-7 have function of the analyzer and of electronic board at the same time. It can display indoor and Outdoor in one screen. It`s easy to compare and to check air quality.

Specification

Display	15inch TFT-Color LCD Touch Screen
Display Interval	1sec (average : 6secs)
Save Interval	User can set according to usage. 6secs, 1min, 5mins, 1hour
Output	RS232/485, USB, Ethernet, LTE, Wi-Fi *Option : Color alarm lamp (color change)
Flowrate	600cc/min
Operating Condition	Temp : -20~60℃ Humidity: 0~95%RH
Dimension	300mm(W) x 260mm(H) x 70mm(D)
Power	DC 12V
Weight	1.5kg

PM2.5	Principle	Light scattering method
	Range	0~1,000μg/m³
	Accuracy	0~35μg/m³: ±5μg/m³ 36~100μg/m³: ±10μg/m³ 101~1,000μg/m³: ±10% reading
PM10	Principle	Light scattering method
	Range	0~1,000μg/m³
	Accuracy	0~100μg/m³: ±15μg/m³ 101~1,000μg/m³: ±15% reading
PM2.5, PM10	Resolution	1μg/m³
	Response Time (T90)	1sec
Temp.	-40~125℃	
Humidity	0~100%RH	
Option	CO2, HCHO, TVOC, CO, NO2, O3, SO2, H2S etc.	

Application

Indoor



Education field : school, classroom, kindergarten, indoor gymnasium, library etc.



Multi-use facilities : office, hospital, senior citizen center, sanatorium etc.


Multi-use facilities : department store, underground parking lot, subway, bus, train etc.

Outdoor



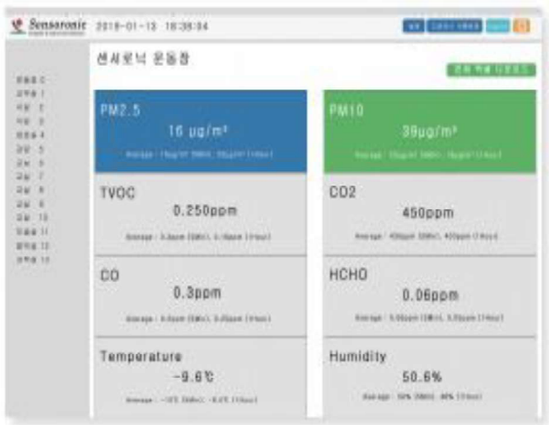

Smart city development : smart city, culture complex etc.
Multi-use facilities : school yard, stadium, apartment, park, airport, parking lot etc.
Industrial site : construction site, plant which emit harmful gas, steelworks, power plant etc.

Monitoring Solution

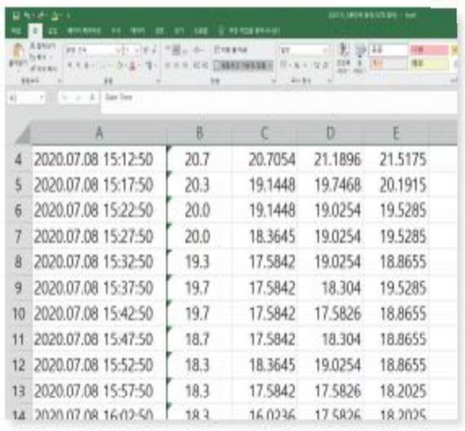
Iot Air Quality Monitoring System

- Data acquisition & control
- Based on Iot, monitoring & management
- Action agenda according to air quality
- Construction of air quality monitoring system
- climate change measures
- Expansion of air quality network

Monitoring solution



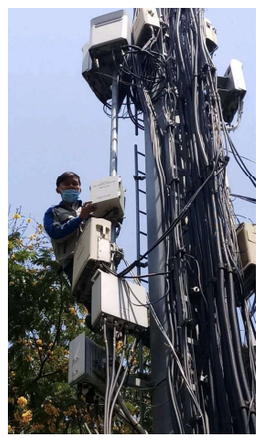
Data logger program



	A	B	C	D	E
4	2020.07.08 15:12:50	20.7	20.7054	21.1896	21.5175
5	2020.07.08 15:17:50	20.3	19.1448	19.7468	20.1915
6	2020.07.08 15:22:50	20.0	19.1448	19.0254	19.5285
7	2020.07.08 15:27:50	20.0	18.3645	19.0254	19.5285
8	2020.07.08 15:32:50	19.3	17.5842	19.0254	18.8655
9	2020.07.08 15:37:50	19.7	17.5842	18.304	19.5285
10	2020.07.08 15:42:50	19.7	17.5842	17.5826	18.8655
11	2020.07.08 15:47:50	18.7	17.5842	18.304	18.8655
12	2020.07.08 15:52:50	18.3	18.3645	19.0254	18.8655
13	2020.07.08 15:57:50	18.3	17.5842	17.5826	18.2025
14	2020.07.08 16:02:50	18.3	16.0236	17.5826	18.2025

Case of Installation

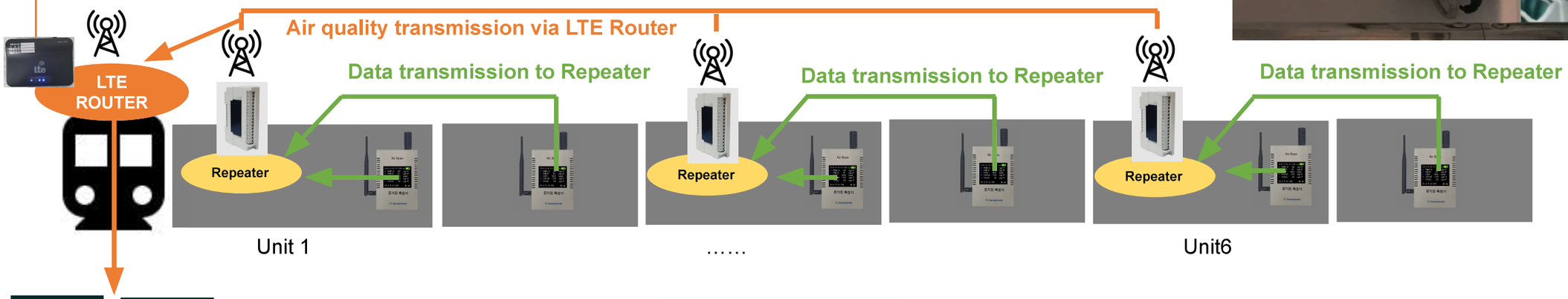
PM SCAN for smart city

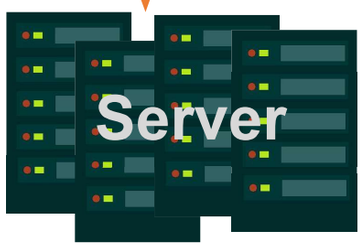


Case of Installation

Air scan in the each subway line

Collect data from the analyzer and send to server (cloud or own server)
(PM2.5, PM10, CO2, HCHO, TVOC, CO, NO2, O3, SO2, H2S, NH3, Temp, RH etc.)

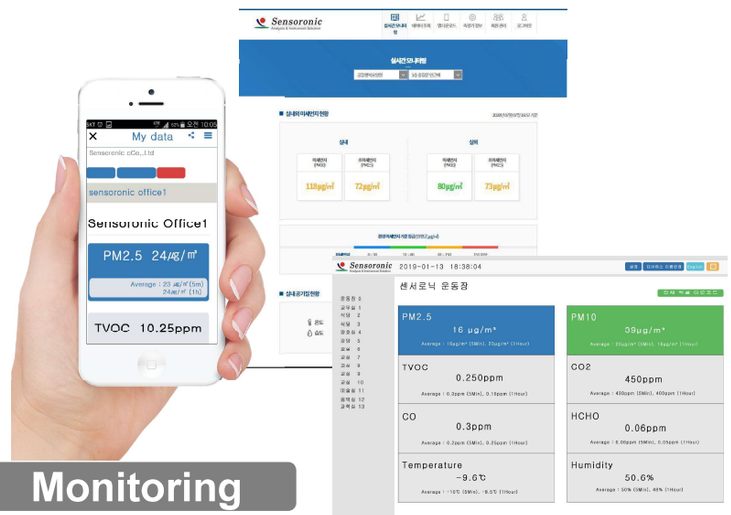




Data accumulation & analysis
In cloud(or own server) via internet

Data management

Data transmission & analysis



Monitoring

*Configuration of communication device can be changed according to user`s install environment

Case of Installation

Air scan in the news

Case of Installation

Multi-scan in Malaysia for Boiler system

Certificate

Certificate for quality (Approval & Test report))

BUCHEON

Certificate No : 2020 – 15

Certificate of Quality Approval

Company Name : Sensoronic Co., Ltd.

President Name : Kyeongsoo Lee

Office address : 1310ho, 1311ho, Sambo Techno Tower, 122, Jomaru-ro 385 beon-gil, Bucheon-si, Gyeonggi-do, Korea

Item description : The Fine Dust And The Air Quality Analyzer

Date of issue : 4. June. 2020

Date of expiry : 3. June. 2022

It is hereby affirmed that the above mentioned products are the best quality goods recommended by the Bucheon City government of Korea.

28. May. 2020

Mayor of Bucheon City

No. KTR-2019-25

Certification

Company	Sensoronic Co.,Ltd	
CEO	Kyeongsoo Lee	
Address	1310ho, 1311ho, Sambo Techno Tower,122, Jomaru-ro 385beon-gil, Bucheon-si, Gyeonggi-do, Korea, 14556	
Contents	Manufacture : Sensoronic	Origin : South Korea
	Model : The fine dust analyzer	Method : Light Scattering
	Model : PM SCAN	Range : Minimum : 0ug/m3 Maximum : 1,000ug/m3
	Minimum scale (value) : 1ug/m3	Official approved error range : Accuracy : 85.3 %
	The First Grade (1)	

「미세먼지 저감 및 관리에 관한 특별법」 제24조제1항 및 같은 법 시행규칙 제16조제3항에 따라 위와 같이 성능인증서를 발급합니다.

Accroding to the fine dust special law (24 article 1clause & 16 article 3clause), we issue this certification.

2020년 1월 7일

January 07, 2020

KTR 한국화학융합시험연구원장

KTR KOREA TESTING & RESEARCH INSTITUTE

BEYOND ASIAN HUB, TOWARD GLOBAL WORLD

TEST REPORT

우 13810 경기도 과천시 교육원로 98(중앙동) TEL (02)2164-0011 FAX (02)2634-1008

REPORT NO. : TBK-2019-008534
CEO : 이경수
Company : (주)센서로닉
Address : 경기 부천시 조마루로385번길 122, 1310, 1311호 (춘의동, 삼보테크노타워)

Date of receipt 2019년 12월 09일
Date of test : 2020년 01월 07일

시험항목	단위	시료구분	결과치	시험방법
Relative accuracy	%	-	97.2	미세먼지 간이측정기 성능인증
Data acquisition	%	-	100	미세먼지 간이측정기 성능인증
Accuracy	%	-	85.3	미세먼지 간이측정기 성능인증
The coefficient of determination	-	-	0.90	미세먼지 간이측정기 성능인증
Repeatability	%	-	97.8	미세먼지 간이측정기 성능인증

certification No. : KTR-2019-25
Mode name : PM SCAN

- 용 도 : 품질관리용 Purpose : Quality assurance (QA)

비 고 : 1. 이 성적서는 의뢰자가 제시한 시료 및 시료명으로 시험한 결과로써 전체 제품에 대한 품질을 보증하지 않으며, 성적서의 진위확인은 홈페이지(www.ktr.or.kr) 또는 QR code로 확인 가능합니다.
2. 이 성적서는 홍보, 선전, 광고 및 소송용 등으로 사용될 수 없으며, 용도 이외의 사용을 금합니다.
3. 이 성적서는 원본(재발행 포함)만 유효하며, 사본 및 전자 인쇄본/파일본은 결과치 참고용입니다.

Jung Muhyun
작성자 : 정무현
Tel : 02-2092-3825

Chang-Seok Jeong
기술책임자 : 정창석
Tel : 1577-0091(ARS ①-④)

2020년 01월 07일

KTR 한국화학융합시험연구원장

위변조 확인용 QR code

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