INNOBIZ Venture for Tomorrow CE SPK Ex 0575 DNV

SENKO

SenKo Co.Ltd.

BETTER SAFETY, BETTER LIFE

CHALLENGE, INNOVATION

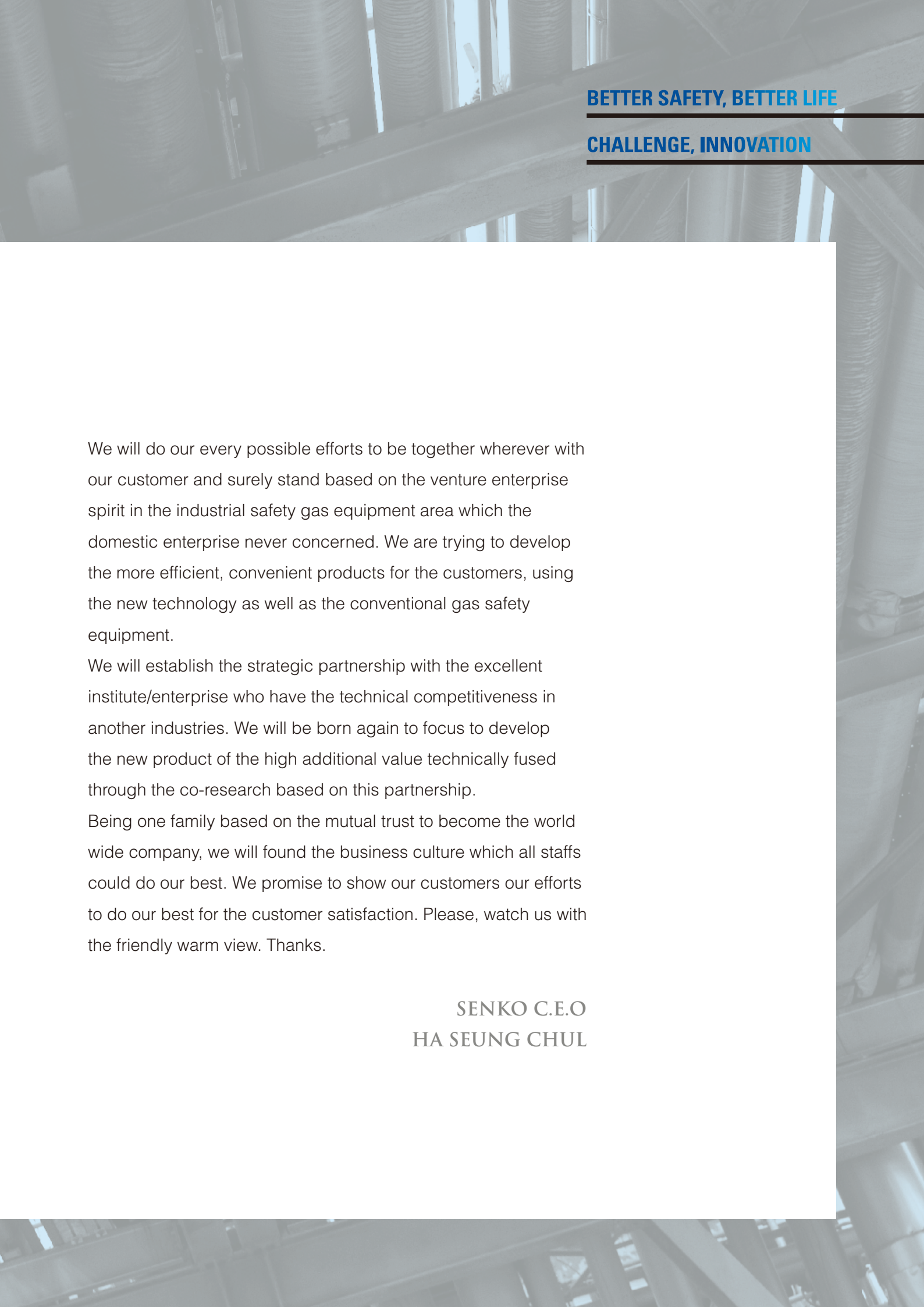
Human Beings, Environment and
Technology in Harmony

CEO MESSAGE

Though our country, Korea has an excellent competitiveness based on the technology even in the global endless competition days, the dependence on the advanced countries is a as high as what it could be said to be technically governed in the gas sensor and gas saefty equipment industry.

The gas sensor technology which could create the high additional value grafting with another industries, is one of the porspective technology which are growing very fast, as the environment and safety are being highly concerned.

Senko Co., Ltd. had developed sensors of the carbon monoxide, hydrogen sulfide by our own technology, starting the oxygen sensor. We had also developed to produce the gas safety equipment and its system such as the portable gas detector in the industrial field. We have been doing our best to localize the Korean domestic market which is dominated by foreign countries'products as well as to develop the oversea market.



BETTER SAFETY, BETTER LIFE

CHALLENGE, INNOVATION

We will do our every possible efforts to be together wherever with our customer and surely stand based on the venture enterprise spirit in the industrial safety gas equipment area which the domestic enterprise never concerned. We are trying to develop the more efficient, convenient products for the customers, using the new technology as well as the conventional gas safety equipment.

We will establish the strategic partnership with the excellent institute/enterprise who have the technical competitiveness in another industries. We will be born again to focus to develop the new product of the high additional value technically fused through the co-research based on this partnership.

Being one family based on the mutual trust to become the world wide company, we will found the business culture which all staffs could do our best. We promise to show our customers our efforts to do our best for the customer satisfaction. Please, watch us with the friendly warm view. Thanks.

SENKO C.E.O
HA SEUNG CHUL

Human Beings, Environment and
Technology in Harmony

SENKO Co.,Ltd. was founded in 2004 and has developed Gas detector, Gas monitoring system based on his own Gas sensor technology. Now, SENKO is producing more than 12 gases sensor with various physical structure. SENKO has invested in research and development of new gas sensor and has customized typical electrochemical gas sensor to satisfy the requirements of Consumer product manufacturer like Samsung Electonics & LG Electronics. We are welcome to cooperate with customers for the customized sensor development.

2004
- SENKO Co., Ltd. Establishment

2012
- SENKO Osan Factory (land 2,968m²)
- 35 Oversea Countries Distributorship Agreement
- Gost & Immetro Certicate
- Award from Korea President

2013
- Investment from Atinum Investment
- Mass Productive line set-up
- Oversea turnover US$ 2.0M
- Certifacate from Korean Government
- IECEX for portable & Fixed detector

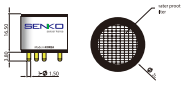
2014
- SENKO China Joint Venture Establshment in Shangai
- Colormetric sensor supply to Samsung Electronics Home appliance
- China CPA, CCCF Sertificate
- Co-development program with LG Electronics

2015
- Green technology certificate
- IECEx certifacate for Sii-100, Si-100C and SGT
- Co-development program with LG Electronics
- Co-development program with Samsung Electronics
- System Business Division establishment
- New customized sensor develoopment for IOT market

2016
- "SOOM" Brand launching

BETTER SAFETY, BETTER LIFE

CHALLENGE, INNOVATION



Model name	SS2118	SS2128	SS2198	SS21N8	SS2148	SS2178
Traget Gas	Oxygen(O_2)	Carbon Monoxide(CO)	Hydrogen Sulfide(H_2S)	Ammonia(NG_3)	Nitrogen Dioxide(NO_2)	Hydrogen(H_2)
Output Signal	90±20μA in Air	70±20 nA / ppm	700±020 nA / ppm	100±30 nA / ppm	-220±50 nA / ppm	30±10 nA / ppm
Typical Baselin Range(pure air)	≤±0.3%vol O_2 equivalent	≤±2 ppm CO equivalent	±2 ppm H_2S equivalent	±2 ppm NH_3 equivalent	±1 ppm NO_2 equivalent	
Filter Capacity		≥20,000 ppm hours				
T90 Response Time	<15seconds	<25seconds	<20seconds	<30seconds	<30seconds	<30seconds
Measurement Range	0~30% vol	0~2,000 ppm	0~100 ppm	0~100 ppm	0~20 ppm	0~1,000 ppm
Maximum Overload	100% vol	5,000 ppm	500 ppm	200 ppm	40 ppm	2,000 ppm
Linearity	Linear	Linear up to 2,000 ppm	Linear	Linear	Linear	Linear
Repeatability	≤±3%	≤±2 ppm CO equivalent	≤±2 ppm H_2S equivalent	≤±10%	≤±5%	2% of signal
Recommeded Load Resistor	10 ohms	10 ohms	10 ohms	10 ohms	10 ohms	10 ohms
Resolution (Electronics Dependent)	0.1 % vol	≤0.5 ppm typical	≤0.1 ppm typical	≤1 ppm typical	≤0.1 ppm typical	≤2 ppm typical

Model name	SS2118_B	SS21CH		SS21A8	SS21F8
Traget Gas	Carbon Monoxide(CO)	Carbon Monoxide(CO)	Hydrogen Sulfide(H_2S)	Alcohol	Formaldehyde(HCHO)
Output Signal	60±20 nA / ppm	80±20 nA / ppm	775±275 nA / ppm	25~40 nA / ppm	200±50 nA / ppm
Typical Baselin Range(pure air)	≤±2 ppm CO equivalent	≤±2 ppm CO	≤±0.5 ppm H_2S equivalent	≤±2 ppm	≤±2 ppm
Filter Capacity	≥20,000 ppm hours				
T90 Response Time	<20seconds	<30seconds		<20seconds	<60seconds
Measurement Range	0~1,000 ppm	0~500 ppm CO	0~200 ppm H_2S	0~1,000 ppm	0~1,000 ppm
Maximum Overload	2,000 ppm	2,000 ppm CO	500 ppm H_2S	2,000 ppm	2,000 ppm
Linearity	Linear up to 2,000 ppm	Linear		Linear	Linear
Repeatability	≤±2 ppm CO equivalent	≤±3% CO	≤±2 ppm H_2S equivalent	≤±2%	≤±3%
Recommeded Load Resistor	10 ohms	10 ohms		10 ohms	10 ohms
Resolution (Electronics Dependent)	≤0.5 ppm typical	≤0.5 ppm typical		≤0.1 ppm typical	≤1 ppm typical

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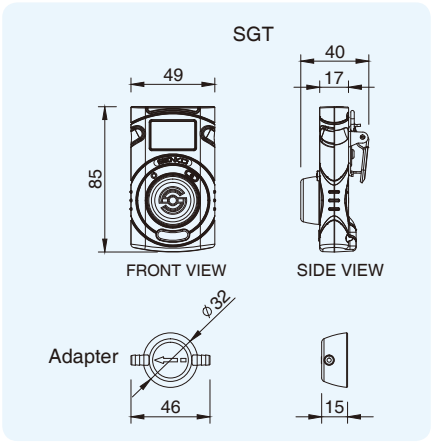
PORTABLE SINGLE GAS DETECTOR

SGT

EXPLICATION AND FEATURES

SGT is an economical gas detector. It operates continuously for two years even without replacement of the battery or gas sensor in order to protect workers from oxygen deficiency or toxic gases. It measures a gas continuously and displays its concentration and raises an alarm when a risk occurs. SGT is a disposable detector. (SGT-P is replaceable)

- Disposable type
- Compact and Lightweight
- Event log (30EA)
- Maintenance-free
- Operates continuously for two years
- Easy configuration and data management through SGT-IR Link
- Easy calibration through Docking Station



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank)

SPECIFICATION

Model	SGT			SGT-P				
Measuring gas	O_2	CO	H_2S	H_2	SO_2	Cl_2	NH_3	NO_2
Range	0~30%Vol	0~500ppm	0~100ppm	0~1000ppm	0~20ppm	0~20ppm	0~100ppm	0~20ppm
Sensor Type	Electrochemical							
Measurement	Diffusion type							
Display	LCD display							
Audible	90dB at 10cm							
Warning Lamp	Red Flashing LEDs (Light-Emitting Diode)							
Vibration	Vibration Alarm							
Battery	Manufacture: Vitzrocell / P/N: SB-AA02(P) / System: Lithium Primary Battery Nominal voltage: 3.6V / Nominal capacity: 1.2Ah							
Temperature & Humidity	-40°C ~ +50°C(for Toxic) / -35°C ~ +50°C(for O_2) 5%~95% RH (Non-condensing)							
Case	Rubber Enclosure							
Accessories	Calibration Cap, Manual, Calibration and Quality report							
Option	External Sampling Pump (SP-Pump101), SENKO-IR Link, Docking Station							
Size & Weight	Size: 54(W) × 91(H) × 32(D)mm Weight: 93g(Toxic), 104g(O_2) (Battery, clip included)							
Operating Life	24 months, based on 2 minutes of alarm per day							
Event Log	Recent 30 alarms							
Approval	Ex ia IIC T4Ga/ IP67 (Korea Ex, IECEx, ATEX, CSA & UL, INMETRO)							

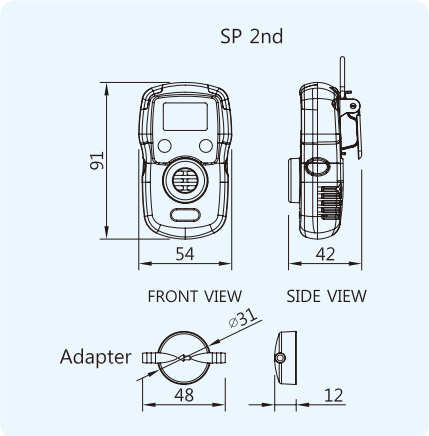
PORTABLE SINGLE GAS DETECTOR

SP2nd

EXPLICATION AND FEATURES

SP2nd is an economical gas detector that can be operated continuously for two years without replacement of gas sensor to protect workers from the disasters caused by the oxygen deficiency or toxic gas poisoning.
It measures one gas continuously and displays its concentration and raise an alarm when a risk occurs.

- Rubber material case for the shock protection
- The excellent water proof/dust proof structure
- High performance audible, visual, vibration alarm
- Setting 1st, 2nd alarm
- Automatic checking of the sensor trouble
- Event logs (20 ea)



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank), Warehouse

SPECIFICATION

Model	SP2nd O_2	SP2nd CO	SP2nd SO_2	SP2nd H_2	SP2nd H_2S	SP2nd NH_3
Measuring gas	O_2	CO	SO_2	H_2	H_2S	NH_3
Measuring type	Diffusion Type or Sampling type with the SP-PUMP 101 option					
Measuring method	Electrochemical cell					
Measuring range	0~30%vol	0~500ppm	0~20ppm	0~1000ppm	0~100ppm	0~100ppm
Sensor life time	< 2 years	> 2 years	> 2 years	> 2 years	> 2 years	> 2 years
Response time	<15sec/90% scale	<30sec/90% scale	<35sec/90% scale	<75sec/90% scale	<30sec/90% scale	<60sec/90% scale
Accuracy	±3%/Full scale					
Resolution	0.1%vol	1ppm	1ppm	Within 5ppm	1ppm	1ppm
Parameter Control	Front 2 switch(calibration, maintenance, alarm setting)					
Operation mode display	Visual : Digital LCD display, Trouble RedLED Audible : buzzer(90dB @ 10cm)					
Measuring value display	LCD Display(3-digit)					
Alarm display	Visual : alarm & status icon, Trouble RedLED Audible : buzzer					
Alarm level set	Programmable within dectection range					
Data Log	Event Log : 20 Data					
Mounting type	Belt Clip					
Program set mode	Alarm value(1,2 alarm) time Set Calibration density setting					
Operating temperature	-20°C ~ 50°C					
Operating humidity	5% to 95% RH(Non-condensing)					
Operating power	CR2 Lithium Battery 3V					
Battery life time	CR2 Battery(3.0V) : 1.2 year, when used 8 hours a day					
Material	PC / TPE					
LCD size	27(W) × 17.5(H)mm					
Dimensions	54(W) × 91(H) × 42(D)mm					
Weight	O_2: 120g / Toxic: 100g (including Battery)					
Approval	Ex ia IIC T4 IP67 (KGS, ATEX, INMETRO)					

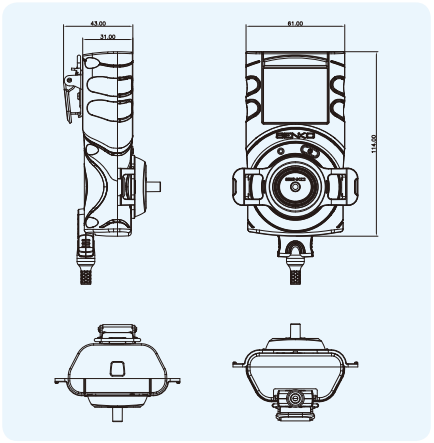
PORTABLE MULTI GAS DETECTOR

MGT

EXPLICATION AND FEATURES

MGT is an united gas detector measuring four(4) major gases, which result the most of the industrial accidents, to protect workers from the disasters caused by the Oxygen deficiency, Toxic gas poisoning and gas explosion. It measures continuously four(4) gases (O_2, CO, H_2S and Combustible Gas(CH_4)) and displays their concentrations and raises an alarm(visual, vibrating, and audible) when the risk occurs. It features the dual sensor of CO and H_2S.

- Small size & Light weight
- 30 EA of Bump tests/ Events/ Cal.
- Simultaneously detect 4 different gases
- 60 days use by one charge for 4-6 hours (N-type)
- Configuration via exclusive IR Link
- Easy check & calibration via Docking Station
- Intrinsic Safety



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Power supply works, Hermetically sealed area (manhole, tank)

SPECIFICATION

Measuring gas	O_2	CO	H_2S	Combustible
Range	0~30%Vol	0~500ppm	0~100ppm	0~100%LEL
Resolution	0.1%Vol	1ppm	0.1ppm	0.1%LEL
Alarm	19, 23%Vol	30, 60ppm	10, 15ppm	20, 40%LEL
Self-test	Full function self-test upon activation Sensors, battery and circuitry - continuous			
Detecting Method	Diffusion / Sampling (with Sampling Pump(optional))			
Display	LCD Display (back-light)			
Alarm	LED flashing, Sound, Vibration			
Sensor	O_2, CO and H_2S: Electrochemical Combustible(LEL): IR or Pellistor			
IP	67			
Temperature	-20°C ~ +50°C			
Humidity	5~95% RH(Non-condensing)			
Batteryw	Rechargeable Li-ion power supply unit (2000mAh)			
Charge Time	4-6 hours			
Battery Life	60 days continuous / Pellistor: 25 hours continuous			
Low Battery Alarm	20 minutes / 10 minutes / 5 minutes expired: 5 long beeps/flashes and then Off is displayed			
Warranty	2 years			
Weight	240g			
Size	61(w) × 114(h) × 43(d)mm			
Optional Accessary	MGT-IR Link, Docking Station, SP-Pump 101			
Approval	IECEx, ATEX, CSA, InMetro			

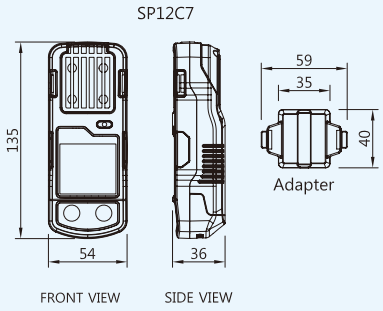
PORTABLE MULTI GAS DETECTOR

SP12C7

EXPLICATION AND FEATURES

SP12C7 is an united gas detector measuring four (4) major gases, which result the most of the industrial accidents, to protect workers from the disasters caused by the oxygen deficiency, toxic gas poisoning and gas explosion. Measure continuously four (4) gases (O_2, CO, H_2S and Combustible Gas(CH_2)) and display their concentrations and raise an alarm when the risk occurs.

- Simultaneously check 4 different gases (methane, oxygen, carbon monoxide, hydrogen sulfide)
- Explosive proof structure for the safety
- Rubber material case for the shock protection
- External pump and probe installation
- Automatic light on when alarming
- Both rechargeable battery and alkaline battery are compatible
- The excellent water proof/dust proof structure



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank), Warehouse

SPECIFICATION

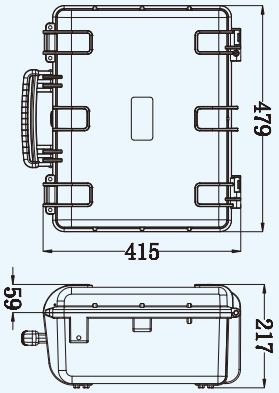
Model	SP12C7			
Measuring gas	Combustible	O_2	CO	H_2S
Measuring type	Diffusion Type or Sampling Type with Sampling pump(optional)			
Measuring method	Catalytic	Electrochemical cell	Electrochemical cell	Electrochemical cell
Measuring range	0~100%LEL	0~30%VOL	0~500ppm	0~100ppm
Sensor life time	> 5 years	< 2 years	> 2 years	> 2 years
Response time	<15sec/90% scale	<15sec/90% scale	<30sec/90% scale	<30sec/90% scale
Accuracy	±3%/Full scale			
Resolution	1%LEL	0.1%VOL	1PPM	1PPM
Parameter Control	Front 2 switch(calibration, maintenance, alarm setting)			
Operation mode display	Digital LCD display, LCD Backlight, Indicator LED			
Measuring value display	Digital LCD Display			
Alarm display	Visual : LCD alarm display, LCD Backlight, Indicator LED Audible : buzzer(90dB @ 10cm)			
Alarm level set	Programmable within dectection range			
Mounting type	Belt Clip			
Program set mode	Alarm value(1,2 alarm)		Alarm value(1,2,TWA, STEL alarm)	
	Calibration gas concentration, Sensor enable or disable, Password, Alarm value setting			
Operating temperature	-20℃ ~ +50℃			
Operating humidity	5 to 95% RH(Non-condensing)			
Operating power	NI-MH Battery-2EA or Alkaline Battery-2EA			
Battery life time	500~1,000 time Rechargeable			
Material	PC / TPE			
LCD size	38(W) × 35(H)mm			
Dimensions	54(W) × 135(H) × 36(D)mm			
Weight	240g (including Battery)			
Approval	Ex iad IIC T3/T4 (IP67)			

DOCKING STATION

EXPLICATION AND FEATURES

Docking station maximizes the performance of SGT/MGT devices. It calibrates and does bump test up to four SGT/MGT devices simultaneously, helping to reduce time. Through Bump test, Docking station tests the gas sensor response and alarm of the devices. In addition, it automatically upgrades the firmware of the devices when the devices are connected to Docking station. Event logs are saved into the USB memory and provide analyses for users. The options can be set by connecting Docking station with PC or IR link.

- Calibration, Bump Test
- Displays status on Power LED and Unit LED
- Saves the status and results of Docking station and SGT
- Upgrades Docking and SGT Firmware
- Saves the log data of Docking station and SGT
- Supports user options using a PC program (IR Link/USB)



SPECIFICATION

Model	for SGT	for MGT
Size	47 × 41 × 22cm (18.50 × 16.14 × 8.66 in.)	
Weight (Without gas cylinder)	8.2kg	
Operating Temperature	41 to +104˚F (5 to +40˚C)	
Warrenty	Full 2 years	
Battery Type	Rechargeable Lithium Ion	
Battery Life	1000 Bump Tests	
LEDs	5 red/green/orange LEDs(1 for each unit, 1 for power)	
Memory	USB 8GB Standard	
Log Capacity	Approximately Up to 10 million tests (8GB,removable USB memory)	Approximately Up to 5 million tests (8GB, removable USB memory)
Tests Performed	Bump Test and Calibration	
Information Stored	Bump/Cal Logs, Individual Monitor Event Logs, Firmware and Unit Configurations	
Gases Available	CO, H_2S and O_2	LEL, CO, H_2S and O_2
Unit Compatibility	Works with SGT	Works with MGT
Calibration Gas	Compatible with 58L cylinders	
Charging Adaptor	12V, 3A	

CHARGER

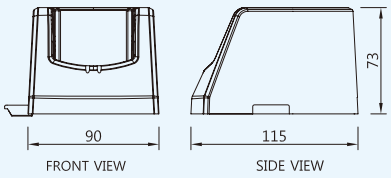
SP-CHARGER201

EXPLICATION AND FEATURES

SP- charger 201 is provided with SP12C7
as a basic package

- The handy stationary charger
- With one electric sources, several chargers can be used simultaneously
- Electric source and charging status LED

SP-CHARGER 201



INSTRUCTION OF USE

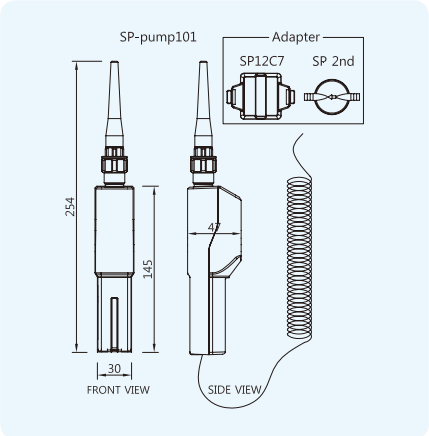
SAMPLING PUMP

SP-PUMP101

EXPLICATION AND FEATURES

Sampling pump is designed to be used by connecting to SP12C7 and SP2nd model.
This can be used to check if there is gas leakage when measure the gas underground manhole.

- Simple structure to install locking
- Excellently durable industrial pump installed
- Automatic checking of chocking



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank), Warehouse

INSTRUCTION OF USE

SPECIFICATION

Model	SP-Pump101
Flow rate	Minimum 500cc/min
Alarm display	Low flow alarm / Low battery alarm (Red LED)
Operating temperature	-20°C ~ 50°C
Operating humidity	5% to 99% RH(Non-condensing)
Battery power	1.5V AA size Alkaline battery 1EA
Battery life time	More than 10 hours
Dimensions	30(W) × 254(H) × 47(D)mm
Weight	260g (including Battery)

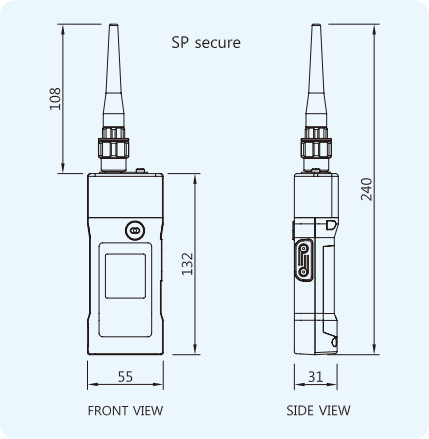
PORTABLE GAS LEAK DETECTOR

SP SECURE

EXPLICATION AND FEATURES

SP secure is designed to be suitable for leak detection of any gas piping and valves by equipping a built-in sampling pump. Since the measured gas concentration is displayed in digital number, accurate measurement is possible.

- Sampling pump built in structure
- The digital concentration display
- Detector for the gas leakage
- Both rechargeable battery and alkaline battery are compatible
- Adopt the sensor which detect the low concentrated



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank), Warehouse

SPECIFICATION

Model	SP Secure			
Measuring gas	LNG/LPG, Combustible Gas	H_2		Xylene
Measuring type	Auto Sampling type			
Measuring method	Catalytic	Catalytic	Electrochemical cell	IR
Measuring range	0~100%LEL	0~100%LEL	0~1000ppm	0~100%LEL
Sensor life time	> 2 years	> 5 years	> 2 years	> 2 years
Response time	<10sec/90% scale	<10sec/90% scale	<75sec/90% scale	<30sec/90% scale
Operation time	About 12 hours			
Accuracy	±3%/Full scale			
Resolution	1%LEL	1%LEL	Within 5ppm	1%LEL
Parameter Control	Right Side switch(calibration, maintenance, alarm setting)			
Operation mode display	Visual : alarm & status icon, Trouble RedLED Audible : buzzer(90dB @ 10cm)			
Measuring value display	LCD Display(3-digit)			
Alarm display	Visual : alarm & status icon Audible : buzzer			
Alarm level set	Programmable within dectection range			
Sampling method	Internal sampling pump			
Flow rate	0.5 liter/min			
Program set mode	Alarm value(1,2 alarm)			
Operating temperature	-20℃ ~ 50℃			
Operating humidity	10 to 95% RH(Non-condensing)			
Battery power	Rechargeable NI-MH or AA Alkaline battery 3ea			
Battery life time	More than 12 hours			
Material	Poly carbonate			
LCD size	32(W) × 40(H)mm			
Dimensions	55(W) × 240(H) × 31(D)mm			
Weight	260g (Battery Including)			
Approval	Ex d ia IIB T3 (KGS)			

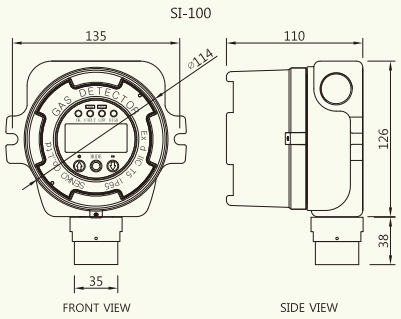
FIXED GAS DETECTOR

SI-100

EXPLICATION AND FEATURES

SI-100 is a fixed gas detector installed in a place where potential gas hazard exists to measure oxygen, toxic gas and combustible gas.
It shows not only the concentration of gas but also diagnostic result of the unit itself through the LCD display and can be connected to the controller with a standard 4-20mA analog output communication or RS-485 digital communication.

- SI-100 measures the concentration of the flammable gas, toxic gas, oxygen and display with LCD
- Easy magnetic bar operation
- Big digital LCD installed with a blue backlight
- Explosive proof structure
- Water/dust proof structure
- Simple gas calibration



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank), Warehouse

SPECIFICATION

Model	SI-100			
Measuring gas	Combustible Gas		Toxic Gas	Oxygen
Measuring type	Diffusion Type			
Measuring method	Catalytic	IR	Electrochemical cell	Galvanic
Measuring range	0~100%LEL	0~100%LEL	Refer to the list (P.23)	0~30%VOL
Sensor life time	> 5 years	> 2 years	> 2 years	< 2 years
Response time	<15sec/90% scale	<30sec/90% scale	Refer to the list (P.23)	<15sec/90%scale
Accuracy	±3%/Full scale			
Resolution	1%LEL	1%LEL	Refer to the list (P.23)	0.1%VOL
Parameter Control	Front 3 magnetic switch(calibration, maintenance, alarm setting)			
Operation mode display	Digital LCD display, LCD Backlight, 4 Indicator LED			
Measuring value display	Digital LCD Display(4-digit)			
Alarm display	Visual : LCD alarm display, LCD Backlight, Indicator LED			
Alarm output signal	Relay contact(Max 30Vdc, 5A) when Alarm occurred			
Alarm level set	Programmable within dectection range			
Output signal	Analog : 4-20mA, Digital : RS-485(Option)			
PC interace	RS_485(Option)			
Cable/Distance	CVVSB 1.5sq or AWG20/2,500m max, RS-485 data communication cable: 1pair(UL2919 RS-485)/1,200m max			
Conduit connection	NPT 3/4" (2way)			
Mounting type	Wall mount			
Program set mode	Alarm value(1,2,3 alarm) Alarm time(instant&delay)1~30min Alarm dead band Relay output on/off			
Operating temperature	-20℃ ~ +55℃			
Operating humidity	5% to 95% RH(Non-condensing)			
Operating power	10~30Vdc 600mA			
Material	Aluminium, Stainless steel(STS304)			
LCD size	55(W) × 30(H)mm			
Dimensions	135(W) × 164(H) × 110(D)mm			
Weight	1.9kg			
Approval	Ex d IIC T5 (IP65)_Korea Ex, IECEx, ATEX, CNEx, INMETRO			
Option	Battery type, Built-in light bar, Movable			

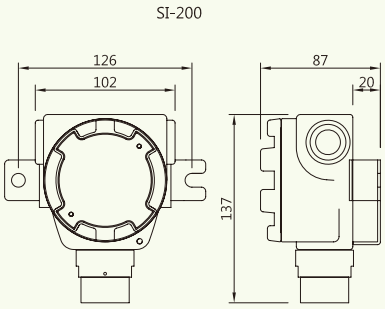
FIXED GAS DETECTOR

SI-100C

EXPLICATION AND FEATURES

SI-100C is a fixed gas detector installing in a place where potential gas hazard exists to measure oxygen, toxic gas and combustible gas without LCD display. It can be connected to the controller with a standard 4-20mA analog outputs.

- Explosive proof structure
- Water/dust proof structure
- 4-20mA Analog outputs
- Built-in Calibration Mode



APPLICATIONS

Steelworks, Petrochemical plant,Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank), Warehouse

SPECIFICATION

Model	SI-100C			
Measuring gas	Combustible Gas		Toxic Gas	Oxygen
Measuring type	Diffusion Type			
Measuring method	Catalytic IR Electrochemical cell Galvanic			
Measuring range	0~100%LEL	0~100%LEL	Refer to the list(P.23)	0~30% VOL
Sensor life time	> 5 years	> 2 years	> 2 years	< 2 years
Response time	<15sec/90% scale	<30sec/90% scale	Refer to the list(P.23)	<15sec/90%scale
Accuracy	±3%/Full scale			
Resolution	1%LEL	1%LEL	Refer to the list (P.23)	0.1%VOL
Parameter	Control Switch(calibration), Admin Console(maintenance, OPTION)			
Operation mode display	2-LED(Operating and Zero Cal, Span Cal. LED)			
Output signal	4-20mA DC(3wire)			
Cable/Distance	Signal cable: 3-wire > CVVSB 1.5sq or AWG20		Power + Signal cable: 2-wire > CVVSB 1.5sq or AWG20	
Conduit connection	NPT 3/4" (2way)			
Mounting type	Wall mount			
Setting	1 Switch Interface(Calibration), Console set available(Option)			
Remote Set	via Console (Zero Calibration, Span Calibration, Calibration Gas Concentration Set, Factory default,4-20mA Calibration, Range Set, Data Logging)			
Operating temperature	-20℃ ~ +55℃			
Operating humidity	5% to 95% RH(Non-condensing)			
Operating power	7V to 40V INPUT DC (12V or 24V DC 60mA normal)			
Material	Aluminium, Stainless steel(STS304)			
Dimensions	102(W) × 137(H) × 87(D)mm			
Weight	1.0kg			
Option	Console			
Approval	Ex d IIC T5 (IP65)_Korea Ex, IECEx, ATEX, CNEx, INMETRO			

MULTI CHANNEL GAS MONITOR FOR FIXED GAS DETECTORS

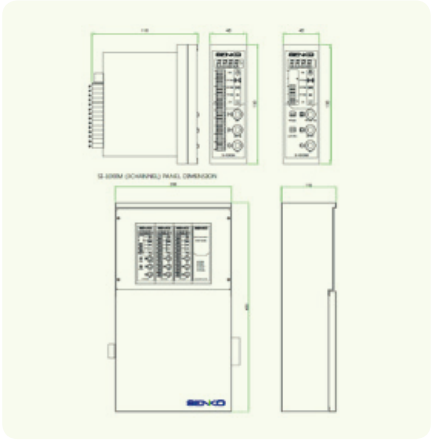
SI-100IM

FEATURES

SI-100IM consists of a Main Alarm unit and Alarm display units. From the one main unit, the alarm display unit can be constructed from 1 to 10 units. SI-100IM is designed as DIN type, so the device can be manufactured in the wall mount panel type, Standalone type, or 19"Rack type according to a user's preference.

- Scphisticated design and simple structure
- 4Digit F.N.D Digital Display
- 40 LED Bar Graph (%, PPM, LEL unit display)
- Fault, 1st, 2nd, 3rd Alarm Icon
- 40 Red Arrow LED Graph(◁) Display
- Easy zero and standard gas calibration
- Self Diagnosis mode
- Display the frequency of calibration
- Back-up Battery installed
- Data Recovery function

SI-100IM SI-100IA (CH1) SI-100IA (CH2) SI-100ICU (CH3)



APPLICATIONS

Steelworks, petrochemical, refining, shipbuilding, wastewater treatment plants and septic tank, LPG tank facilities, LNG gas plant, Warehouse

SPECIFICATION

	Main Alarm Unit	Alarm Display Unit
Model No	SI-100IM	SI-100IA
Measuring Range	0-30V FND Digital Display	0.000 to 9999 Digital User Setting
Measuring Display	4Digit FND Digital Display 18 LED Bar Graph, Battery, B/Z Stop (V Unit Display)	4Digit F.N.D Digital Display 40 LED Bar Graph (%, PPM, LEL Unit Display)
Alarm Display	Fault, 1st, 2nd, 3rd Alarm ICON AU01~AU10 (Alarm Unit, indicating in order)	Fault, 1st, 2nd, 3rd Alarm ICON 40 Red Arrow LED Graph(◁)
Alarm Sound	Buzzer 92dB	
Input Signal		4-20mA Full Scale
Output Signal	1st, 2nd, 3rd Relay Dry Contact, 12V.DC	Fault, 1st, 2nd, 3rd Relay Dry Contact, 4-20mA, 12V.DC
Accuracy		FND Digital ±1% Full Scale or 1Digit (Whichever is greater) FND Digital ±1% Full Scale or 1Digit (Whichever is greater)
Alarm Set	depend on configuration of SI-100IA	1st, 2nd, 3rd Alarm Setting 40 Red Arrow LED Graph(◁) Setting
Alarm Reset	Manual Total Reset & HMI	Manual Local Reset
Self Test	Battery Test Switch (AC/DC)	Test Switch (0~Max Range 10sec)
Operating in/out	RS-485 Modbus (SI-100ICU)_Option	
Scan Time	10ms	10ms
Back-Up Battery	Ni-Cd Battery 18V 600mA (3, 6Channel)	
Operating Power	110/220V.AC 50/60Hz (or 24V.DC)	
Temperature / Humidity	-20℃ ~ 60℃, 95%RH	-20℃ ~ 60 ℃, 95%RH
Dimensions	Main Channel Card : 40(W) × 130(H) x104(D)mm Wall Mount Panel 3CH : 278.5(W) × 450(H) x115(D)mm Wall Mount Panel 6CH : 398.5(W) × 450(H) x115(D)mm	Alarm Channel Card : 40(W) × 130(H) x104(D)mm
Weight	3CH : 7.3kg, 6CH : 10kg	
Option	Built-in light bar	

SPECIAL RECEIVER FOR FIXED GAS DETECTOR (BAR-GRAPH TYPE)

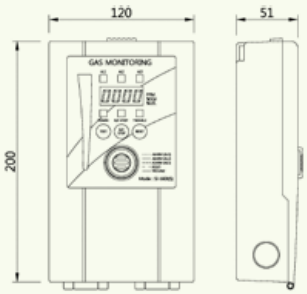
SI-100IS

FEATURES

- Sophisticated design and simple structure
- Display using the Bar-Graph depend on alarm steps. (1st, 2nd, 3rd Alarm)
- 3 Colored LED and F.N.D gas concentration display
- Easy zero calibration and built-in calibration mode
- Self test mode
- Display the number of calibrations
- RS-485 (Option)
- Built-in light bar (Option)

APPLICATIONS

Steelworks, Sewage treatment plant, Petrochemical plant, Shipbuilding yard, LPG tank facilities, LNG gas plant, Warehouse



SPECIFICATION

Model	SI-100IS
Measuring range	Programmable within dectection range
Display	30-Bar graph, 3 Alarm LED, 3 Status LED, 7-Segment(4Digit)
Sound	buzzer(Alarm1,2,3, Reset, Fault), 80dB
Operation mode display	3 Alarm LED, 3 Status LED
Measuring value display	30-Bar graph, 7-Segment(4Digit)
Alarm level set	Alarm1,2,3 Programmable within dectection range
Alarm signal output	Alarm 1,2,3 - 12V.DC, Dry contact (com, no, nc), comm 12V.DC, Dry contact(com, no, nc)
Input Signal	4/20mA signal
Cable/Distance	CVVSB 1.5sq or AWG20 × 3wire (Power + Signal) / 2,500m max
Mounting type	Wall mount
Program set mode	ALARM1,2,3, Range, 4-20mA Calibration etc.
Operating temperature	-20°C ~ +50°C
Operating humidity	5%~95%RH(Non-condensing)
Operating power	100~240V INPUT AC (50/60Hz), <0.24A
Material	ABS AF308
Dimensions	120(W) × 200(H) × 51(D)mm
Weight	0.5kg
Option	RS-485 Module

GAS LEAK DETECTOR

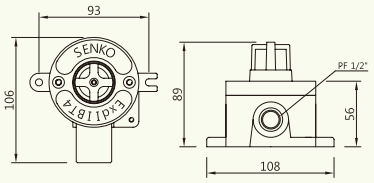
SI-100D

EXPLICATION AND FEATURES

SI-100D SET is a combustible gas detector that consists of a sensing unit and a receiver. This is used to detect gas leaks in the pipe or valve.
SI-100D SET is a low-priced entry-level products.

DETECTOR SI-100D

- Explosion proof structure
- Long distance communication with 4~20mA analog output
- Convenient installation
- Simple structure, reasonable price



APPLICATIONS

Steelworks, Sewage treatment plant, Petrochemical plant, Shipbuilding yard, LPG tank facilities, LNG gas plant

SPECIFICATION

Model	SI-100D
Measuring range	LNG/LPG(methane/propane)
Measuring type	Diffusion type
Measuring method	Catalytic
Measuring range	0~100%LEL
Sensor life time	> 2 years
Response time	<10sec/90%scale
Accuracy	±3%/Full scale
Output signal	4-20mA DC
Cable/Distance	CVVSB 1.5sq or AWG20 × 3wire (Power + Signal) / 2,500m max
Conduit connection	NPT 1/2"
Mounting type	Wall mount
Operating temperature	-20°C ~ +50°C
Operating humidity	0%~95% RH(Non-condensing)
Operating power	24V DC +/- 20%, <90mAh
Materianl	Aluminium
Dimensions	93(W) × 106(H) × 89(D)mm
Weight	0.6kg
Approval	Ex d II B T4/14-KB2BO-0422 (KTL)

RECEIVER FOR FIXED GAS LEAK DETECTOR

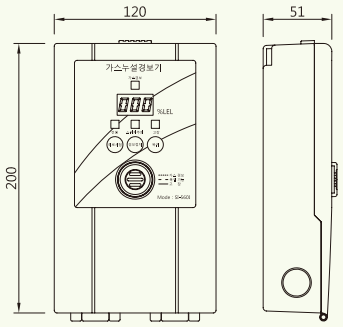
SI-100I

RECEIVER SI-100I

- Simple structure, reasonable price.
- Sophisticated design and simple structure
- 3 Colored LED and F.N.D gas concentration display.
- Easy zero calibration and built-in calibration mode
- Self test mode
- Displays the number of calibration and sensor efficiency.
- Built-in light bar (Option)

APPLICATIONS

Steelworks, Sewage treatment plant, Petrochemical plant, Shipbuilding yard



SPECIFICATION

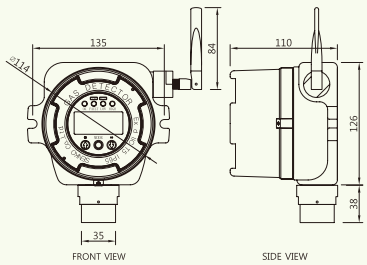
Model	SI-100I
Measuring range	0~100%LEL
Display	1 Alarm LED, 3 Status LED, 7-Segment(3Digit)
Sound	buzzer(Alarm, Reset, Fault), 80dB
Operation mode display	1 Alarm LED, 3 Status LED
Measuring value display	7-Segment(3Digit)
Alarm level set	15%LEL
Alarm signal output	12V.DC, Dry contact (com, no, nc)
Input Signal	4/20mA signal
Reset signal	Reset switch
Cable/Distance	CVVSB 1.5sq or AWG20 × 3wire (Power + Signal) / 2,500m max
Mounting type	Wall mount
Operating temperature	-20°C ~ +50°C
Operating humidity	5%~95%RH(Non-condensing)
Operating power	100~240V INPUT AC (50/60Hz), <0.24A
Material	ABS AF308
Dimensions	120(W) × 200(H) × 51(D)mm
Weight	0.48kg

SI-100 WIRELESS

EXPLICATION AND FEATURES

SI-100 Wireless is a fixed gas detector installed in a place where potential gas hazard exists to measure oxygen, toxic gas and combustible gas. It shows not only the concentration of gas but also iagnostic result of the unit itself through the LCD display and can be connected to the controller with RF commucation wirelessly.

- Easy Installation/removal because no wiring works are required
- Economic system which doesn't require any wiring construction
- Water/Dust proof structure
- Same functions with Fixed Gas Detector working with wiring electrical power source
- Tracking is possible with its own address-Maintenance and Replacement are simple



APPLICATIONS

Steelworks, Petrochemical plant, Shipbuilding yard, Sewage treatment plant, Mine, Power supply works, Hermetically sealed area (manhole, tank)

※ Various gas sensors can be applied

SPECIFICATION

Model	SI-100 Wireless			
Measuring gas	Combustible Gas		Toxic Gas	Oxygen
Measuring type	Diffusion Type			
Measuring method	Catalytic	IR	Electrochemical cell	Galvanic
Measuring range	0~100%LEL	0~100%LEL	Refer to the list (P.23)	0~30%Vol
Sensor life time	> 5 years	> 2 years	> 2 years	< 2 years
Response time	<15sec/90% scale	<30sec/90% scale	Refer to the list (P.23)	<15sec/90% scale
Accuracy	±3%/Full scale			
Resolution	1%LEL	1%LEL	Refer to the list (P.23)	0.1%Vol
Parameter Control	Front switch(calibration, maintenance, alarm setting)			
Operation mode display	4-LED(Power, 2-stage alarm, 1-trouble)			
Measuring value display	LCD Display(4-digit), Built in back light			
Alarm display	Visual : 2-stage alarm, Trouble LED			
Alarm output signal	2-stage alarm, Trouble AC250V 5A relay contact(SPDT)			
Alarm level set	Programmable within dectection range			
Alarm signal output	250V 1A/3-SPST relay contact(2-stage alarm, 1-trouble)			
Frequency	433MHz, 914MHz, 2.45Ghz			
Mounting type	Wall mount			
Program set mode	Alarm value(1,2 alarm) 4-20mA Calibration			
Operating temperature	-20℃ ~ 50℃			
Operating humidity	5% to 99% RH(Non-condensing)			
Battery power	Battery : 3.6V 1.46A			
Battery life time	6~12 months			
Material	Aluminium, Stainless steel(STS304)			
LCD size	55(W) × 30(H)mm			
Dimensions	150(W) × 165(H) × 110(D)mm			
Weight	1.9kg			
Approval	Ex d IIC T5 IP65 (KTL)			

GAS SENSOR

OXYGEN SENSOR SS1118 (0~100%)

- With high concentrated oxygen measuring sensor, only for the Oxygen generator and medical sensor
- Measure the oxygen's pressure in the air

HYDROGEN SULFIDE SENSOR SS2198

- Suitable to monitor the petrochemical, oil refining, waste water treatment, drain water treatment, manhole, mining

OXYGEN SENSOR SS2118 (0~30%)

- As the measuring sensor of the oxygen in the air, suitable for the portable equipment and industrial equipment
- Excellent accuracy and response time

IR (INFRARED) SENSOR

- Gas measuring Sensor only for the flammable gas and carbon dioxide, nitrogen dioxide
- The Infrared sensor which has Very fast response and excellent accuracy can easure the flammable gas in the nonoxygen space

CARBON MONOXIDE SENSOR SS2128

- Fire monitoring application for the portable equipment, industrial safety equipment, boiler room, parking place
- Excellent stability of the output signal and little affected by other gases

HYDROGEN SENSOR SS2178

- Suitable to monitor the power plant, hydrogen fuel battery, hydrogen tank, hydrogen leakage and processes
- Minimize the interference on the hydrogen sulfide

SPECIFICATION

※ Various Sensors available

Model	SS1118	SS2118	SS2128	SS2178	SS2198	IR sensor
Detecting Gas	Oxygen	Oxygen	Carbon monoxide	Hydrogen	Hydrogen sulfide	Hydro Carbon, CO_2 etc
Nominal Range	0~100%	0~30%	0~2,000ppm	0~1,000ppm	0~100ppm	Depends on the type of the gas
Maximum Overload	-	-	5,000ppm	2,000ppm	550ppm	
Eapected operating Lift(years)	< 2 years	< 2 years	> 2 years	> 2 years	> 2 years	
Output Singnal	6.0± 1.0mV	90± 20μA@/20.9% Oxygen	70±20nA/ppm	15±10nA/ppm	700±200nA/ppm	
Resolution	0.1%	0.1%	0.5ppm typical	2ppm	< 0.1ppm typical	
Temperature Range	-20°C ~ +50°C					
Pressure Range	Atmospheric ±10%					
T90 Response Time	≤ 15 sec	≤ 15 sec	≤ 25 sec	≤ 30 sec	≤ 20 sec	
Relative Humidity Range	15~90% RH					
Typical Baseline Range (pure air)	-	-	≤±2ppm CO equivalent	0 to 30ppm	≤±2ppm H_2S equivalent	
Maximum Zero Shift (+20°C to +40°C)	-	-	-2 to 3ppm	-20ppm equivalent	0.2ppm equivalent	
Long Term Output Drift	Less than 5%/year	Less than 5%/year	Less than 5%/year	Less than 5%/year	Less than 5%/year	
Recommended LoadResistor	-	100Ω	10Ω	10Ω	10Ω	
Bias Voltage	Not required	Not required	Not required	Not required	Not required	
Repeatability	2% of signal	2% of signal	≤±2ppm CO equivalent	2% of signal	≤±2ppm CO equivalent	
Output Linearity	Linear					
Weight	7g	18g	6g	6g	6g	15g
Positon Sensitivity	None					
Storage Life	6 months					
Recommended Storage Temperature	0~20°C					
Warranty Period	1 year	1 year	1 year	1 year	1 year	1 year

SI-100 SPECIFICATION

※ It is available to order various sensors including below list.

Gas		Sensor	Range	A1	A2	Resolution
Oxygen	O_2	Electrochemical	0~30%vol	19.0%vol	23.0%vol	0.1%vol
Carbon Monoxide	CO	Electrochemical	0~500ppm	30ppm	60ppm	1ppm
Sulfur dioxide	SO_2	Electrochemical	0~20ppm	2ppm	5ppm	0.1ppm
Hydrogen	H_2	Catalytic	0~100%LEL	0~10%LEL	20%LEL	1%LEL
Hydrogen	H_2	Electrochemical	0~1000ppm	100ppm	500ppm	within 5ppm
Hydrogen sulfide	H_2S	Electrochemical	0~100ppm	10ppm	15ppm	1ppm
Hydrogen sulfide	H_2S	PID	0~50ppm	10ppm	15ppm	0.1ppm
Combustible	-	Catalytic	0~100%LEL	10%LEL	20%LEL	1%LEL
Combustible	-	IR	0~100%LEL	10%LEL	20%LEL	1%LEL
Ammonia	NH_3	Electrochemical	0~100ppm	25ppm	35ppm	1ppm
Acetylene	C_2H_2	Catalytic	0~100%LEL	10%LEL	20%LEL	1%LEL
Ethanol	C_2H_5OH	Catalytic	0~100%LEL	10%LEL	20%LEL	1%LEL
Toluene	$C_6H_5CH_3$	IR	0~100%LEL	10%LEL	20%LEL	1%LEL
Toluene	$C_6H_5CH_3$	Catalytic	0~100%LEL	10%LEL	20%LEL	1%LEL
Acetic acid	CH_3COOH	Catalytic	0~100%LEL	10%LEL	20%LEL	1%LEL
Methane	CH_4	IR	0~9999ppm	5000ppm	6000ppm	Within 20ppm
Methane	CH_4	IR	0~100%LEL	10%LEL	20%LEL	1%LEL
Methane	CH_4	IR	0~100%vol	5%vol	6%vol	1%vol
Chlorine	Cl_2	Electrochemical	0~5ppm	0.5ppm	1.0ppm	0.1ppm
Chlorine	Cl_2	Electrochemical	0~20ppm	0.5ppm	1.0ppm	0.1ppm
Carbon Dioxide	CO_2	IR	0~2000ppm	1000ppm	1500ppm	Within 3ppm
Carbon Dioxide	CO_2	IR	0~5000ppm	3000ppm	5000ppm	Within 3ppm
Carbon Dioxide	CO_2	IR	0~5%vol	0.5%vol	3.0%vol	0.1%vol
Hydrogen Chloride	HCl	Electrochemical	0~10ppm	1ppm	2ppm	0.1ppm
VOC	VOC	PID	0~1000ppm	50ppm	100ppm	Within 3ppm
Xylene	$C_6H_4(CH_3)_2$	IR	0~100%LEL	10%LEL	20%LEL	1%LEL

SI-100C SPECIFICATION

※ It is available to order various sensors including below list.

Gas		Sensor	Range	A1	A2	Resolution
Oxygen	O_2	Electrochemical	0~30%vol	Refer to the alarm set points in the SI-100 Specification		
Carbon Monoxide	CO	Electrochemical	0~500ppm			
Hydrogen	H_2	Catalytic	0~100%LEL			
Hydrogen	H_2	Electrochemical	0~1000ppm			
Hydrogen sulfide	H_2S	Electrochemical	0~200ppm			
Combustible	-	Catalytic	0~100%LEL			
Ethylene Oxide	C_2H_4O	IR	0~100%LEL			
Methanol	CH_3OH	Catalytic	0~100%LEL			
Ammoia	NH_3	Electrochemical	0~100ppm			

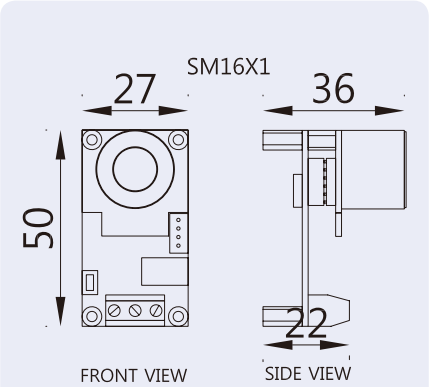
GAS SENSOR MODULE

SM16X1

EXPLICATION AND FEATURES

Generally, the gas sensor could be divided as 4 kinds such as the electric chemical type, the semi-conductor type, the optic type, the catalytic. The application of each sensor type is quite different. It is important to adopt the proper gas sensor depend on the gas type, environmental factor in the using area, sensing range, resolving ability, cost, etc. Senko Co., Ltd is trying to provide the most proper gas sensor and modules depend on customers" requests, keeping lots of the technology development and Know How related with the gas sensor.

- The carbon dioxide sensor module sequenced with the air conditioner
- The smell sensor module for home appliance(TVOC sensor adopted)
- Hydrogen detecting module for the fuel battery
- Electric sensor transmitter only for the electric chemical sensor type
- Concentrated Oxygen Sensor Modules for the Oxygen Generator
- Concentrated Odor sensor module
- Module related with the electronic nose



SPECIFICATION

Model	SM16X1						
Measuring gas	O_2	O_2	CO	H_2S	H_2	H_2	NH_3
Measuring type	Diffusion Type						
Measuring method	Electrochemical	Electrochemical	Electrochemical	Electrochemical	Electrochemical	Catalytic	Electrochemical
Measuring range	0~100%	0~30%	0~500ppm 0~1000ppm	0~100ppm	0~1000ppm	0~100%LEL	0~100ppm
Sensor life time	< 2 years	< 2 years	> 2 years	> 2 years	> 2 years	> 2 years	> 2 years
Response time	T90 < 5 sec	T90 < 15 sec	T90 < 15 sec	T90 < 30 sec	T90 < 30 sec	T90 < 10 sec	T90 < 90 sec
Accuracy	±3%/Full scale						
Sensitivity	0.10%	0.10%	1ppm 3ppm	0.5ppm	5ppm	1%LEL	0.5ppm
Output signal	4-20mA						
Operating temperature	-10 ~ 50℃						
Operating humidity	15~90%RH						
Operating power	9~30VDC (Max 80mA @ 12VDC) (Galvanic, Electrochemical - 10~15mA, IR or Catalytic - 50mA)						
Dimensions	50(W) × 27(H) × 36(D)mm						
Weight	Module 26g						

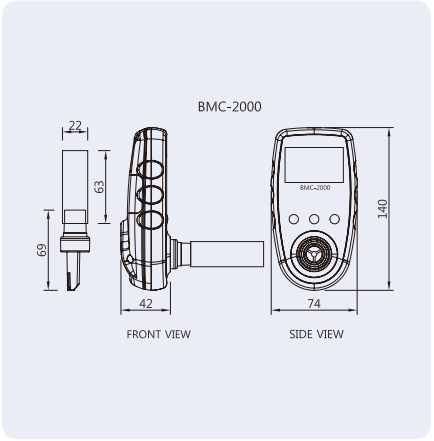
Measuring gas	SO_2	NO_2	NO	CH_4	CH_4	CO_2
Measuring type	Diffusion Type					
Measuring method	Electrochemical	Electrochemical	Electrochemical	Catalytic	IR	IR
Measuring range	0~20ppm	0~20ppm	0~250ppm	0~100%LEL	0~100%vol 0~100%LEL (0~5%vol)	0~2000ppm 0~5000ppm
Sensor life time	> 2 years	> 2 years	> 2 years	> 2 years	> 2 years	> 2 years
Response time	T90 < 35 sec	T90 < 50 sec	T90 < 45 sec	T90 < 10 sec	T90 < 30 sec	T90 < 30 sec
Accuracy	±3%/Full scale					
Sensitivity	0.1ppm	0.1ppm	1ppm	1%LEL	1%vol 1%LEL	3ppm 7ppm
Output signal	4-20mA					
Operating temperature	-10 ~ 50℃					
Operating humidity	15~90%RH					
Operating power	9~30VDC (Max 80mA @ 12VDC) (Galvanic, Electrochemical - 10~15mA, IR or Catalytic - 50mA)					
Dimensions	50(W) × 27(H) × 36(D)mm					
Weight	Module 26g					

BREATH CO MONITOR

BMC-2000

EXPLICATION AND FEATURES

BMC-2000 can be used in smoking cessation programs by healthcare professionals. And it also can be used as a noninvasive method to get %COHb in the patient's blood and to screen CO poisoned patients by medical man. The small size and light weight make the BMC-2000 ideal for hand held use. It is mainly used in smoking cessation clinics; it is used for instructional purposes to check on the client's progress and compliance.



- Non-Invasive method to know how much carbon monoxide(CO) poisoned
- Indirect and simple instrument to measure carboxyhemoglobin(COHb)in blood
- Easy to discriminate smoker
- Easy to recognize the degree of CO poisoning (smoking habit)
- Two language (English, Korean) are provided
- CE certificate of European medical equipment
- Concentration of CO in breath and percentage of COHb in blood are displayed simultaneously
- Adult / Pregnant / Young mode are provided
- Manage analysis data through software

SPECIFICATION

Model	BMC-2000
Measuring gas	CO
Measuring type	Breath through the mouth
Measuring method	Electrochemical cell
Measuring range	0~100ppm, 0~500ppm
Countdown	15 seconds
Accuracy	±5%/Full scale or 1ppm
Hydrogen cross sensitivity	5~10% / Full scale
Resolution	1ppm
Parameter Control	Front 3 switch(calibration, maintenance, configuration setting)
Operation mode display	Visual : Graphic LCD Display, LED Indicator Audible : buzzer
Measuring value display	Graphic LCD Display
LED indicator	7 Steps (Green/Amber/Red)
Reset signal	Auto Power OFF
Mounting type	Pocket, Hand carry
User mode	Adult / Adolescent
Program set mode	Language(Korean, English), Age, Sound, Calibration
Operating temperature	0°C ~ +40°C
Operating humidity	5 to 95%RH(Non-condensing)
Mouthpiece adapter	D type bacteria filter
Disposable mouthpiece	Diameter 22mm
Material	PC+ABS
LCD size	50(W) × 30(H)mm
Dimensions	74(W) × 140(H) × 42(D)mm
Weight	160g

CERTIFICATES

Business License

Factory Registration Certificate

Foreign Investment Enterprises

Certificate of quality management systems

Certificate of Green Technology

TR CU

Certificate of Russia(Gost-R)

IECEx

Certificate of China

CNEx

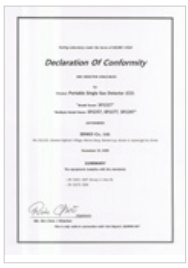
CE Conformance Report(SPsecure)

Safety Certificate(SPsecure)

CE conformance Report(SI-100)

CPA(SI-100)

IECEx(SI-100)


Declaration of Conformity(SP2nd)

Safety Certificate(SP2nd)

CB TestCertificate(SP12C7)

Declaration of Conformity(SP12C7)

Safety Certificate(SP12C7)

EC Declaration of Conformity(BMC-2000)

ATEX(SGT)

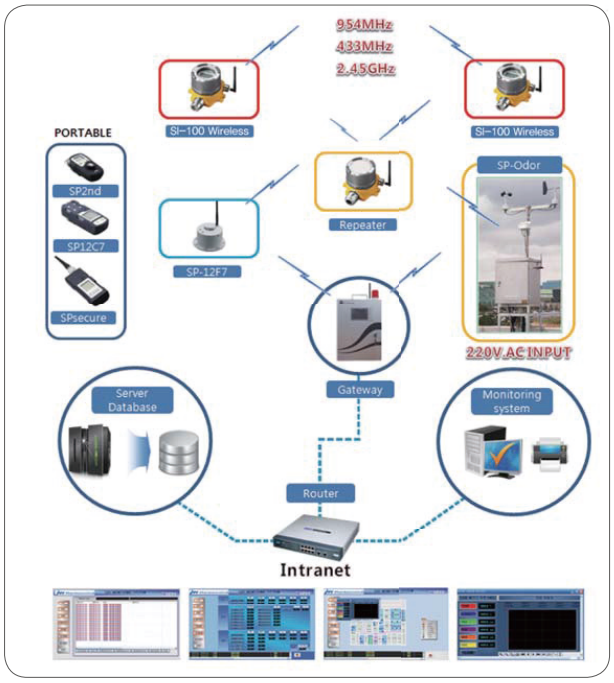
CSA(SGT)

IECEx(SGT)

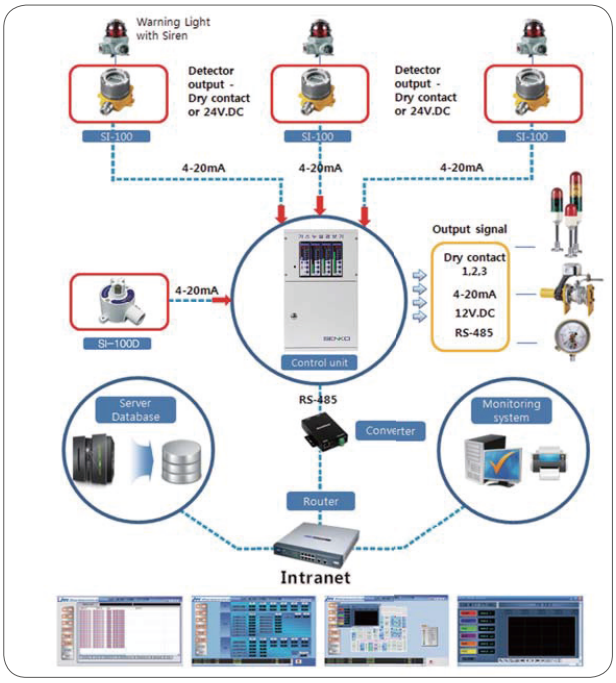
Inmetro(SGT)

MONITORING SYSTEM CONFIGURATION

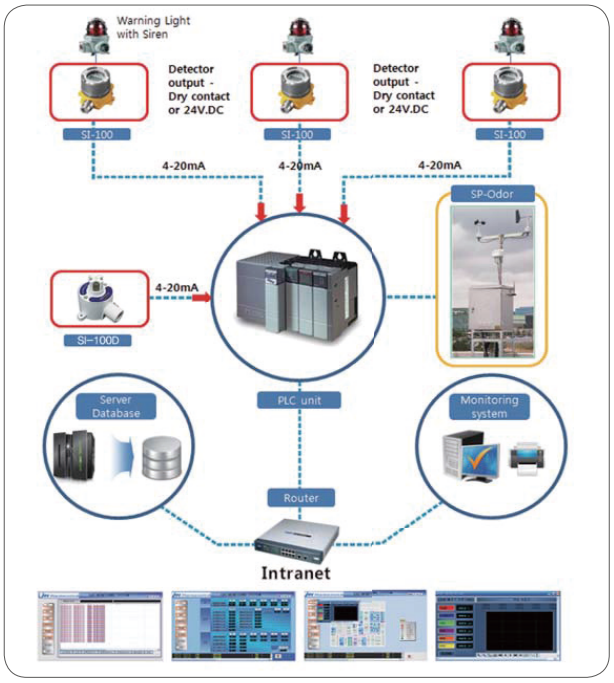
CONFIGURATION-1



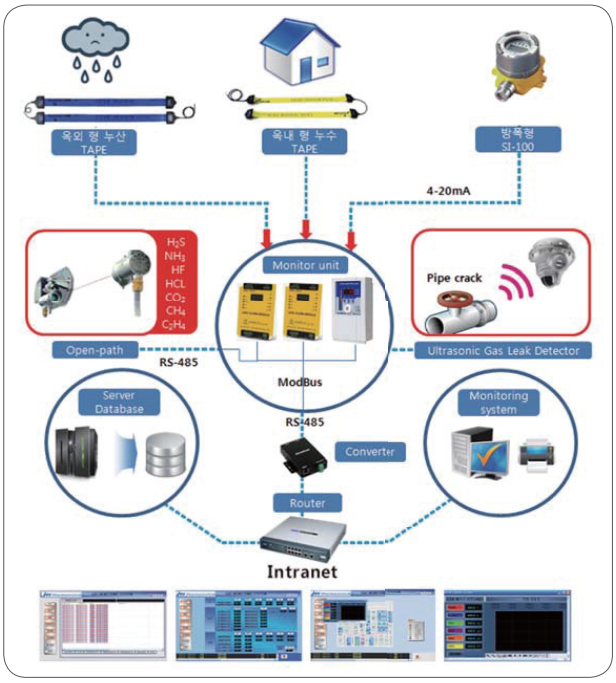
CONFIGURATION-2



CONFIGURATION-3



CONFIGURATION-4



SENKO
SenKo Co., Ltd

73, Oesammi-ro 15beon-gil, Osan-si, Gyeonggi-do, 18111, South Korea
TEL. +82-31-492-0445 **FAX.** +82-31-492-0446
E-MAIL. senko@senko.co.kr **WEB SITE.** www.senko.co.kr