

Portable Gas Detectors Product Guide

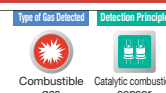


Combustible Gas Detectors

Detect Combustible Gases in General with High Sensitivity

For measurement of combustible gas concentration of 0-10/0-100% LEL.

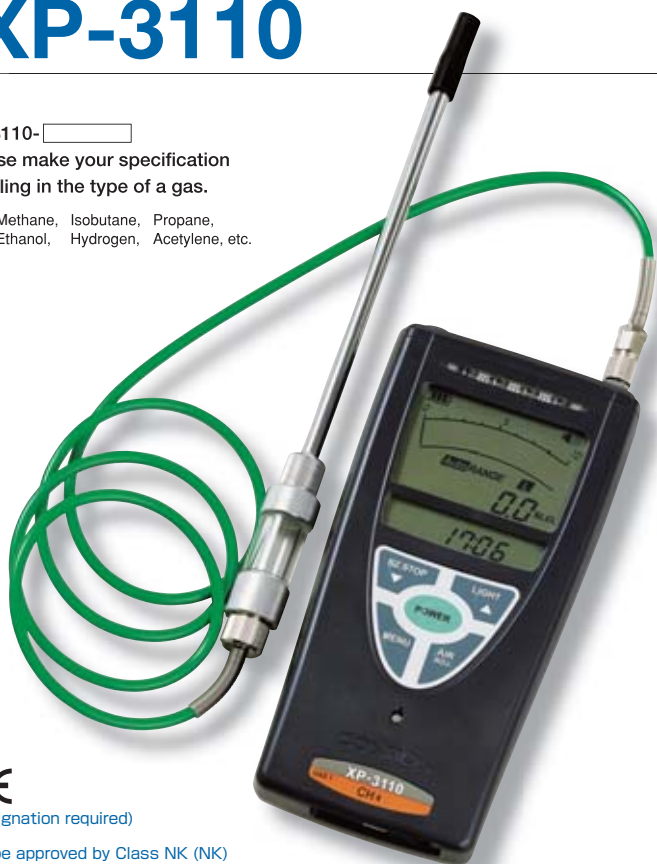
XP-3110



XP-3110-

Please make your specification by filling in the type of a gas.

Ex: Methane, Isobutane, Propane, Ethanol, Hydrogen, Acetylene, etc.



(Designation required)

Type approved by Class NK (NK)
No.06T605 (Designation required)

Features

- For measurement of combustible gas concentration of 0-10/0-100%LEL.
- Suitable for monitoring a risk of explosion.
- New digital display with a simulated analog scale.
- Built-in correction factors for up to 5 flammable gases.(factory option)

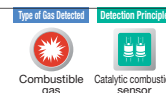
Specifications

Model	XP-3110
Gas Detected	Combustible gases and vapors (specify gas to be detected)
Detection Principle	Catalytic combustion
Sampling Method	Extractive
Detection Range	0-100%LEL
Indication Accuracy (Under identical conditions)	±5% of full scale
Alarm Set Value	20%LEL
Display	LCD digital (with backlight) Digital display: 0-100%LEL Digital bar display: Auto range changeover 0-10%LEL (L range) 0-100%LEL (H range)
Alarm Indication	Gas alarm: Intermittent buzzer, Red lamp flashing Trouble alarm: Buzzer, Red lamp flashing, LCD display
Explosion-Proof Structure	Exibd II BT3
Operation Temperature	-20 to 50°C
Power Source	4×AA alkaline dry cells
Battery Life *1	Up to 20 hours
Dimensions	W82×H162×D36mm
Weight	Approx. 450g (16oz.) (excluding batteries)
Standard Accessories	Soft case, 4×AA alkaline dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, spare filters
Optional Accessories	2-30m gas sampling hose, Gas dilution probe, Data download software (CD-ROM software and USB cable)

*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

Super-sensitive and best suited for detecting gases in ppm range.

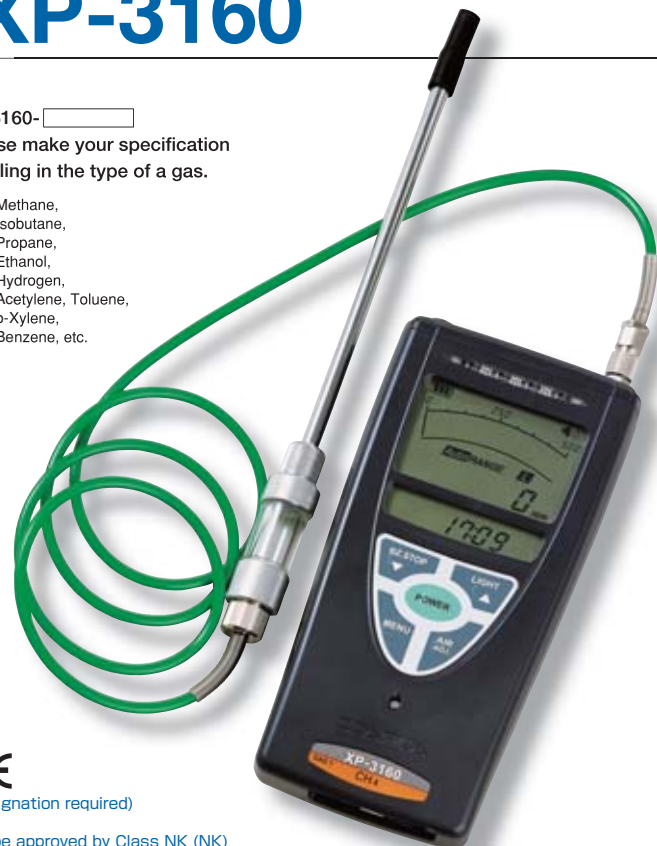
XP-3160



XP-3160-

Please make your specification by filling in the type of a gas.

Ex: Methane, Isobutane, Propane, Ethanol, Hydrogen, Acetylene, Toluene, o-Xylene, Benzene, etc.



(Designation required)

Type approved by Class NK (NK)
No.06T605 (Designation required)

Features

- High sensitivity detector with 0-500ppm measuring range (Standard).
- Best suited for measuring toxic and combustible gases in the ppm range.
- Lightweight 450g (16 oz.) and compact.
- Built-in correction factors for up to 5 flammable gases.(factory option)




Specifications

Model	XP-3160
Gas Detected	Combustible gases and vapors (specify gas to be detected)
Detection Principle	Catalytic combustion
Sampling Method	Extractive
Detection Range	0-5,000ppm or 0-10,000ppm
Indication Accuracy (Under identical conditions)	H range: ±5% L range: ±10%
Alarm Set Value	250 or 500ppm
Display	LCD digital (with backlight) Digital display: 0-5,000ppm or 0-10,000ppm Digital bar display: Auto range changeover 0-500ppm or 0-1,000ppm (L range) 0-5,000ppm or 0-10,000ppm (H range)
Alarm Indication	Gas alarm: Intermittent buzzer, Red lamp flashing Trouble alarm: Buzzer, Red lamp flashing, LCD display
Explosion-Proof Structure	Exibd II BT3
Operation Temperature	-20 to 50°C
Power Source	4×AA alkaline dry cells
Battery Life *1	Up to 20 hours
Dimensions	W82×H162×D36mm
Weight	Approx. 450g (16oz.) (excluding batteries)
Standard Accessories	Soft case, 4×AA alkaline dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, spare filters
Optional Accessories	2-30m gas sampling hose, Gas dilution probe, Data download software (CD-ROM software and USB cable).

*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

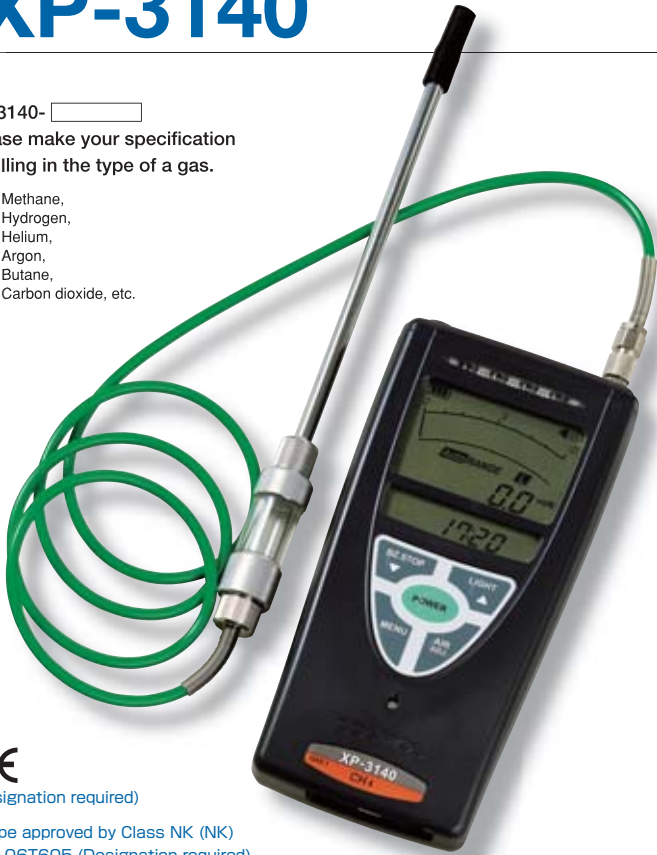
For measurement of high concentration gases up to 100vol%.

XP-3140

Type of Gas Detected	Detection Principle
 Combustible gas	 Thermal conductivity sensor
 Others	

XP-3140-
Please make your specification by filling in the type of a gas.

Ex: Methane,
Hydrogen,
Helium,
Argon,
Butane,
Carbon dioxide, etc.



CE
(Designation required)

Type approved by Class NK (NK)
No.06T605 (Designation required)

Features

- For measurement of high concentration gas up to 100vol%.
- Suitable for inspecting the amount of gas remaining in tanks.
- Extended battery life of up to 30 hours.





Specifications

Model	XP-3140
Gas Detected	Methane, Propane, Argon, Carbon dioxide, etc. (specify gas to be detected)
Detection Principle	Thermal conductivity
Sampling Method	Extractive
Detection Range	0-100vol%
Indication Accuracy (Under identical conditions)	H range: $\pm 5\%$ L range: $\pm 10\%$
Alarm Set Value	50vol%
Display	LCD digital (with backlight) Digital display: 0-100vol% Digital bar display: Auto range changeover 0-10vol% or 0-30vol% (L range) 0-100vol% (H range)
Alarm Indication	Gas alarm: Intermittent buzzer, Red lamp flashing Trouble alarm: Buzzer, Red lamp flashing, LCD display
Explosion-Proof Structure	Exibd II BT3
Operation Temperature	0 to 40°C
Power Source	4×AA alkaline dry cells
Battery Life *1	Up to 30 hours
Dimensions	W82×H162×D36mm
Weight	Approx. 450g (16oz.) (excluding batteries)
Standard Accessories	Soft case, 4×AA alkaline dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, spare filters
Optional Accessories	2-30m gas sampling hose, Gas dilution probe, Data download software (CD-ROM software and USB cable).

*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

Simultaneous displays combustible gas and oxygen concentration.

XP-3118

Type of Gas Detected	Detection Principle
 Combustible gas	 Catalytic combustion sensor
 Oxygen concentration	 Galvanic cell sensor

XP-3118- -Oxygen
Please make your specification by filling in the type of a gas.

Ex: Methane,
Isobutane,
Propane,
Ethanol,
Hydrogen,
Acetylene, etc.



CE
(Designation required)

Type approved by Class NK (NK)
No.06T605 (Designation required)

Features

- Simultaneous monitoring of combustible gas and oxygen concentration.
- Perfect for compliance work, safety and environmental monitoring.
- Powerful built-in pumps allows sample-draws up to 30 meters.

Specifications

Model	XP-3118	
Gas Detected	Combustible gases and vapors (specify gas to be detected)	Oxygen
Detection Principle	Catalytic combustion	Galvanic cell
Sampling Method	Extractive	
Detection Range	0-100%LEL	0-25.0vol%
Indication Accuracy (Under identical conditions)	$\pm 5\%$ of full scale value	$\pm 0.3\text{vol}\%$ (Compliant with JIS T 8201)
Alarm Set Value	20%LEL	18.0vol%
Display	LCD digital (with backlight) Digital display Digital bar display	
Alarm Indication	Gas alarm: Intermittent buzzer, Red lamp flashing Trouble alarm: Buzzer, Red lamp flashing, LCD display	
Explosion-Proof Structure	Exibd II BT3	
Operation Temperature	0 to 40°C	
Power Source	4×AA alkaline dry cells	
Battery Life *1	Up to 20 hours	
Dimensions	W82×H162×D36mm	
Weight	Approx. 450g (16oz.) (excluding batteries)	
Standard Accessories	Soft case, 4×AA alkaline dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, spare filters	
Optional Accessories	2-30m gas sampling hose, Gas dilution probe, Data download software (CD-ROM software and USB cable).	

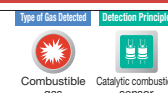
*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

Combustible Gas Detectors

Detect Combustible Gases in General with High Sensitivity

COSMOTECTOR Extractive Type For measurement of combustible gas concentration of 0-10/0-100% LEL

XP-311/311A



Features

- Measures combustible gases in general. (Please specify gas to be detected.)
- Best suited for monitoring a risk of explosion.
- Compact and lightweight body of only 700 grams.
- Easy to use, measuring in one hand.
- Alarm function warns operators of the dangerous concentration. (XP-311A)

* (for US market only)

Specifications

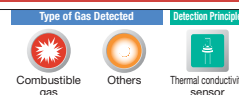
Model	XP-311	XP-311A (with alarm function)
Gas Detected	LPG, Manufactured gas, other combustible gases and vapors. * Please specify gas to be detected.	
Detection Principle	Catalytic combustion	
Sampling Method	Extractive	
Detection Range	0-10%LEL (L Range)/0-100%LEL (H Range) Selectable	
Indication Accuracy *1	±5% of full scale	
Alarm Set Value	-	20%LEL
Alarm Indication	-	Gas alarm (flashing lamp, intermittent buzzer) Low battery (continuous buzzer)
Operating Temperature	-20 to 50°C (0 to 40°C for methane specification)	
Power Source	4x AA (R6) manganese dry cells	
Battery Life *2	Up to 10 hours by alkaline dry cells (without meter illumination and alarm. Up to 6 hours for methane specification.)	
Explosion-Proof Structure	Intrinsic safety/Explosion-proof id2G3	
Dimensions	W84 × H190 × D40mm	
Weight	Approx. 700g	
Built-in Circuit	Meter illumination	
Standard	Soft case, 4x AA (R6) manganese dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, Spare filters	
Accessories	Gas sampling hose, Sampling float, Output connector, Mixer, External alarm unit	



Type approved by Class NK (NK) No.87T609
The Ship Equipment Inspection Society of Japan (HK) approved product (Designation required)

COSMOTECTOR Extractive Type For measurement of high concentration gas up to 100vol %

XP-314



Features

- Measures both combustible and non-combustible gases including carbon dioxide, argon, and helium. (Please specify gas to be detected.)
- Suitable for inspecting the amount of gas remaining in tanks.
- Also suitable for agricultural use including astringency removal. (CO₂ concentration control)

* (for US market only)

Specifications

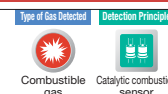
Model	XP-314	□-- letter of the model
Gas Detected and Detection Range (Please make sure to specify the type of gas)	Model	Type of gas
A	B	Manufactured gas, Natural gas
		Methane, Hydrogen, Helium
		Others
		Carbon dioxide, Argon
C	D	Propane, Butane
		Mixture of butane and air (6A)
Detection Principle	Thermal conductivity	
Sampling Method	Extractive	
Indication Accuracy *1	H Range : ±5% of full scale L Range : ±10% of full scale	
Operating Temperature	0 to 40°C	
Power Source	4x AA (R6) manganese dry cells	
Battery Life *2	Up to 10 hours or more by alkaline dry cells (without meter illumination)	
Explosion-Proof Structure	Intrinsic safety/Explosion-proof id2G3	
Dimensions	W84 × H190 × D40mm	
Weight	Approx. 700g	
Built-in circuit	Meter illumination	
Standard	Soft case, 4x AA (R6) manganese dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, Spare filters	
Accessories	Gas sampling hose, Sampling float, Output connector, Mixer, Silica gel for astringency removal (100g)	



Type approved by Class NK (NK) No.87T609
UL classified (Designation required)
The US safety standard for electrical devices.

COSMOTECTOR Extractive Type Super-sensitive and best suited for detecting gases in the ppm range

XP-316/316A



Features

- High sensitivity detector with 0-500ppm measuring range (standard).
- Best suited for measuring toxic and combustible vapors. (Please specify gas to be detected.)
- Suitable for detecting combustible gases in typical factories.

* (for US market only)

Specifications

Model	XP-316	XP-316A (with alarm function)
Gas Detected	LPG, Manufactured gas, other combustible gases and vapors. * Please specify gas to be detected.	
Detection Principle	Catalytic combustion	
Sampling Method	Extractive	
Detection Range	(L Range) 0-500/ (H Range) 0-5,000ppm (L Range) 0-1000/ (H Range) 0-10,000ppm (Consult us as for range specification and the type of gas.)	
Indication Accuracy *1	H Range: ±5% of full scale L Range: ±10% of full scale	
Alarm Set Value	-	250ppm 0.05vol% (standard specification)
Alarm Indication	-	Gas alarm (flashing lamp, intermittent buzzer) Low battery (continuous buzzer)
Operating Temperature	0 to 40°C	
Power Source	4x AA (R6) manganese dry cells	
Battery Life *2	Up to 10 hours by alkaline dry cells (without meter illumination and alarm; Approx. 6 hours for methane specification)	
Explosion-Proof Structure	Intrinsic safety/Explosion-proof id2G3	
Dimensions	W84 × H190 × D40mm	
Weight	Approx. 700g	
Built-in circuit	Meter illumination	
Standard	Soft case, 4x AA (R6) manganese dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, Spare filters	
Accessories	Gas sampling hose, Sampling float, Output connector, Mixer, External alarm unit	



Type approved by Class NK (NK) No.87T609
UL classified (Designation required)

*1 Under identical conditions. *2 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

Powerful Tools for Detecting Combustible Gas and CFC

Extractive Type Combustible gas detector

XP-702II Z

Type of Gas Detected	Detection Principle
CFC	Hot wire semiconductor sensor
Combustible gas	



Features

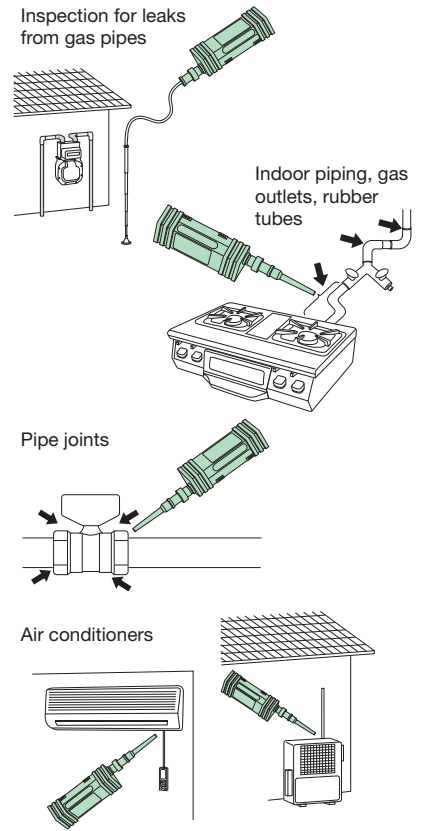
- Far more sensitive than leak detection liquid. Suitable for detecting small gas leaks.
- Detect two types of gas using a single Gas Detector.
- Extended battery life reduces running costs.

Specifications

Model	XP - 702II Z-B	XP - 702II Z-A	XP - 702II Z-F
Gas Detected	One type of combustible gas (e.g., city gas, LPG)	Two types of combustible gas (selectable)	CFC substitutes and combustible gas (selectable)
Detection Principle	Hot wire semiconductor		
Minimum Detectable Leak Rate	City gas, LPG, etc.: 3.3×10^{-6} Pa · m ³ /S CFCs: Leakage of 12.4 g/year (R-407C) or 11.2 g/year (R-410A)		
Minimum Detectable Concentration	City gas, LPG, etc.: 10ppm CFCs: 30ppm		
Response Time	3s or less (not including CFCs)		
Detection Indication	Intermittent buzzer and flashing lamp		
Power Source	3×AA alkaline dry cells		
Battery Life	Up to 18 hours (by alkaline dry cells) at constant temperature and humidity		
Explosion-Proof Structure	Sensor: Pressurization, Other parts: Intrinsic safety		
Operating Temperature	- 20 to 50°C		
Dimensions	W60 × H140 × D40mm (excluding protrusions)		
Weight	Approx. 260g (excluding batteries)		
Standard Accessories	Probe with filter/moisture trap, Check gas, Standard attachment.		
Optional Accessories	3×AA alkaline dry cells, Hand strap, Spare filters Probe for testing roadway surfaces, Telescopic gas probe, Earphones, etc.		

- *1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.
*2 The gas probe set is available in four types. Contact us for details.
*3 Contact us for information on the types of gas that can be detected.

Example of how XP-702II Z is used.



CE
(Designation required)

Cart Type high performance gas detector

XP-707II

Type of Gas Detected	Detection Principle
Combustible gas	Hot wire semiconductor sensor



Features

- Compact storage.
- Available to monitor in low gas concentration. (from 0-30ppm range)
- Auto-zero adjustment function.
- Self-diagnosis function.
- Available to adjust alarm sound loudness.

Specifications

Model	XP-707 II
Gas Detected	Natural gas (CH ₄ based)
Detection Principle	Methane selective hot wire semiconductor
Sampling method	Diffusion
Detection Range	0-30ppm, 0-100ppm, 0-10,000ppm (3 ranges: S, L, H)
Alarm Set Value	L/H range: 20ppm (intermittent sound), 100ppm (continuous sound) S range: 0-30ppm (intermittent sound)
Response time	Approx. 7s (90% response)
Alarm Indication	(Gas detection) By gas concentration indicator. Buzzer sound changes from intermittent to continuous when gas concentration exceeds alarm set value. (Sensor malfunction) Flash left lamp for gas concentration indication. Intermittent buzzer sound. *Sensor and pump are stopped automatically. (Pump malfunction) Flash right lamp for gas concentration indication. *Sensor and pump are stopped automatically.
Operating Temperature	0 to 40°C
Power Source	4 × D alkaline dry cells or D manganese dry cells
Battery life *1	Up to 80 hours (alkaline dry cells) Up to 20 hours (manganese dry cells)
Form	Cart type (Simple drip-proof structure)
Dimensions	W245 × H1125 × D435mm W245 × H790 × D280mm (in case of storage)
Weight	Approx. 4.9 kgs. (including batteries)

- *1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

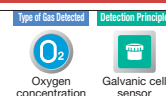


Oxygen Indicators

Functionality and Operability Best Suited for Measuring Oxygen

COSMOS Personal Gas Monitor XX-2100 Series Oxygen indicator

XO-2200



Features

- Can be used continuously for 5000 hours.
- Available with loud buzzer, alarm lamp from 4 dimensions, peak hold function.
- Available with TWA (Time Weighted Average) gas concentration display, memory of peak value, and peak hold function.
- Thin, lightweight design.
- Available with gas calibration kit (Optional).

Specifications

Model	XO-2200
Gas Detected	Oxygen (O ₂)
Detection Principle	Galvanic cell
Sampling Method	Diffusion
Detection Range (Service Range)	0-25vol% (25-50vol%)
Resolution	0.1vol%
Indication Accuracy *1	Within ±0.5vol%
Alarm Set Value	1st stage 19.5vol% 2nd stage 18.0vol%
Response Time *2	20s or less
Display Mode	LCD (Manual backlight)
Alarm Mode	Buzzer sounds, flashing red light, vibrator
Functions	Remaining battery level, peak hold, memory of peak value, alarm functions except gas alarm (sensor malfunction, remaining battery level, air-adjustment malfunction)
Operation Temperature	-10°C to 40°C, 30-90%RH (non-condensing)
Operation Air Pressure	Air pressure ±10%
Power Source	1 × AAA alkaline dry cell (LR 03)
Battery Life *3	Up to 5000 hours (at 20°C without alarm)
Dimensions	W65×D22×H64mm (excluding protrusions)
Weight	Approx. 75g (including battery)
Standard Accessories	1 × AAA alkaline dry cell, 1 × safety pin adaptor (with fixing screw)

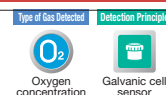
*1 Under identical measuring conditions.

*2 Assuming 90% response and operating at 20 ±2°C

*3 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

"Mini" Gas Detector Oxygen indicator

XA-912



Features

- Can be used continuously for 2000 hours.
- Smart digital display.
- Available with peak hold function.

Specifications

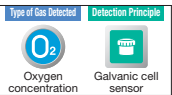
Model	XA-912
Gas Detected	Oxygen
Detection Principle	Galvanic cell
Sampling Method	Diffusion
Detection Range	0-25.0vol% (0.1vol% resolution)
Indication Accuracy	±0.5vol%
Alarm Set Value *1	Lower limit: 18.0vol% Upper limit: 25.0vol%
Alarm Accuracy	±1.0vol%
Response Time *2	20 s or less (90% response)
Operating Temperature	-10 to 40°C
Power Source	3×AA (R6) alkaline dry cells
Battery Life	Up to 2000 hours
Explosion-Proof Structure	Ex ia II CT4
Dimensions	W56 × H121 × D32mm
Weight	Approx. 165g (excluding batteries)
Optional Accessories	Drip-proof case, Toss-in case, Pump (P-90), Inspection tool, Earphone

*1 Consult us if non-standard alarm set value is desired.

*2 Operating at 20±2°C, and without a sampling tube when used as a suction type.

Digital oxygen indicator

XO-326ALA/ALB



XO-326ALA
(Cable: 5m with a spool attached to the body)

XO-326ALB
(Cable: 1m coiled cord)

Conforms to JIS T 8201
The Ship Equipment Inspection Society of Japan (HK)
approved product (Designation required)

Features

- Excellent functions and operability best suited for monitoring oxygen deficiency.
- Galvanic cell sensor's excellent stability.

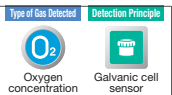
Specifications

Model	XO-326ALA	XO-326ALB
Gas Detected	Oxygen	
Detection Principle	Galvanic cell	
Sampling Method	Diffusion	
Meter Indication	3-digit LCD	
Detection Range	0-40.0vol%	
Indication Accuracy *1	±0.3vol% (±0.7vol% in JIS T 8201)	
Alarm Set Value	18.0vol%	
Alarm Indication	Intermittent buzzer at or below the Alarm Set Value Continuous buzzer on Low battery	
Response Time	20s or less (90% response)	
Power Source	2×AA (R6) manganese dry cells	
Explosion-Proof Structure	Intrinsic safety i3aG4	
Sensor Extension Cable	5m with a spool attached to the body	1m coiled cord
Dimensions	W66 × H170 × D29mm	W66 × H120 × D29mm
Weight	Approx. 300g	Approx. 250g
Standard accessories	Soft case, 2×AA (R6) manganese dry cells	
Optional Accessories	Sensor extension cable (5m/with a carrying bag)	

*1 Under identical conditions.

Extractive Type Oxygen indicator

XP-3180



CE
(Designation required)

Conforms to JIS T 8201
Type approved by Class NK (NK)
No.06T606 (Designation required)

Features

- Extractive type oxygen concentration indicator.
- Convenient for measuring oxygen concentration in containers where sampling is difficult.

Specifications

Model	XP-3180
Gas Detected	Oxygen
Detection Principle	Galvanic cell
Sampling Method	Extractive
Detection Range	0-25.0vol%
Indication Accuracy	±0.3vol%
(Under identical conditions)	(Compliant with JIS T 8201)
Alarm Set Value	18.0vol%
Display	LCD digital (with backlight) Digital display Digital bar display
Alarm Indication	Gas alarm: Intermittent buzzer, Red lamp flashing Trouble alarm: Buzzer, Red lamp flashing, LCD display
Explosion-Proof Structure	Exib II BT3
Operation Temperature	-10 to 40°C
Power Source	4×AA alkaline dry cells
Battery Life *1	Up to 100 hours
Dimensions	W82×H162×D36mm
Weight	Approx. 450g (16oz.) (excluding batteries)
Standard Accessories	Soft case, 4×AA alkaline dry cells, Gas sampling hose (1m), Probe with filter/moisture trap, Spare filters
Optional Accessories	2-30m gas sampling hose, Gas dilution probe, Data download software (CD-ROM software and USB cable).

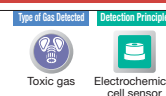
*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

Toxic Gas Detectors

Accurately Detect Low Concentration Toxic Gases, Using High Sensitivity Sensors

COSMOS Personal Gas Monitor XX-2200 Series Carbon monoxide detector

XC-2200



(Actual size)

Features

- Can be used continuously for 5000 hours.
- Available with loud buzzer, alarm lamp from 4 dimensions, peak hold function.
- Available with TWA (Time Weighted Average) gas concentration display, memory of peak value, and peak hold function.
- Thin, lightweight design.
- Available with gas calibration kit (Optional)

Specifications

Model	XC-2200
Gas Detected	Carbon Monoxide (CO)
Detection Principle	Electrochemical cell
Sampling Method	Diffusion
Measuring Range (Service Range)	0-300ppm (300-2,000ppm)
Resolution	0-350ppm: 1ppm / 350-2,000ppm: 50ppm
Indication Accuracy *1	Within ±30ppm
Alarm Set Value	50ppm (first stage), 150ppm (second stage), 150ppm·h (time weighted average)
Response Time *2	30s or less (90% of final reading)
Display Mode	LCD (Manual backlight)
Alarm Mode	Buzzer sounds, flashing red light, vibrator
Functions	Remaining battery level, peak hold, peak value memory, readout of time weighted average, alarm functions except gas alarm (time weighted average value, sensor malfunction, remaining battery level, zero-adjustment malfunction), gas calibration
Operating Temperature	-10°C to 40°C, 30-90% RH (non-condensing)
Operating Air Pressure	Air pressure ±10%
Power Source	1 × AAA alkaline dry cell
Battery Life *3	Up to 5,000 hours (at 20°C with less than 20ppm)
Dimensions	W65 × D22 × H64mm (excluding protrusions)
Weight	Approx. 75g (including battery)
Standard Accessories	1 × AAA alkaline dry cell, 1 × safety pin adaptor (with fixing screw)

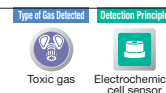
*1 Under identical measuring conditions.

*2 Operating at 20±2°C.

*3 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

COSMOS Personal Gas Monitor XX-2100 Series Hydrogen sulfide detector

XS-2200



Features

- Can be used continuously for 5000 hours.
- Available with loud buzzer, alarm lamp from 4 dimensions, peak hold function.
- Available with TWA (Time Weighted Average) gas concentration display, memory of peak value, and peak hold function.
- Thin, lightweight design.
- Available with gas calibration kit (optional).

Specifications

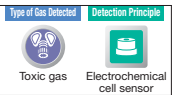
Model	XS-2200
Gas Detected	Hydrogen Sulfide (H ₂ S)
Detection Principle	Electrochemical cell
Sampling Method	Diffusion
Detection Range (Service Range)	0-30.0ppm (30.1-100ppm)
Resolution	0-35.0ppm: 0.1ppm 35-100ppm: 5ppm
Indication Accuracy *1	Within ±1.5ppm ±1digit
Alarm Set Value	1st stage 10.0ppm 2nd stage 15.0ppm
Response Time *2	30s or less
Display Mode	LCD (Manual backlight)
Alarm Mode	Buzzer sounds, flashing red light, vibrator
Functions	Remaining battery level, peak hold, memory of peak value, alarm functions except gas alarm(sensor malfunction, remaining battery level, air-adjustment malfunction)
Operation Temperature	-10°C to 40°C, 30-85%RH (non-condensing)
Operation Air Pressure	Air pressure ±10%
Power Source	1 × AAA alkaline dry cell
Battery Life *3	Up to 5,000 hours (at 20°C with less than 5 ppm)
Dimensions	W65×D22×H64mm (excluding protrusions)
Weight	Approx. 75g (including battery)
Standard accessories	1 × AAA alkaline dry cell, 1 × safety pin adaptor (with fixing screw)

*1 Under identical measuring conditions.

*2 Assuming 90% response and operating at 20 ±2°C.

*3 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

XPS-7



How to replace the sensor unit



Lift the snap lock and open the sensor cover.



Remove the sensor unit and insert the new sensor unit. Close the sensor cover.

XPS-7 & Sensor Units



Features

- Detect a range of gases with a single gas detector by exchanging the sensor unit.
- Cassette-type sensor units eliminate the need for gas detector adjustment.

● List of Detected Gases

Type	Gas	Full Scale	Type	Gas	Full Scale	Type	Gas	Full Scale
XDS-7NH	NH ₃	100ppm	XDS-7GH	GeH ₄	1ppm	XDS-7HS	H ₂ S	50ppm
XDS-7SH	SiH ₄	25ppm	XDS-7CL	Cl ₂	5ppm	XDS-7CO	CO	250ppm
XDS-7DC	SiH ₂ Cl ₂	25ppm	XDS-7CF	ClF ₃	1ppm	XDS-7DS	Si ₂ H ₂	25ppm
XDS-7AH	AsH ₃	250ppb	XDS-7HC	HCl	25ppm	XDS-7F2	F ₂	5ppm
XDS-7PH	PH ₃	1ppm	XDS-7HF	HF	10ppm	XDS-7O2	O ₂	1ppm
XDS-7BH	B ₂ H ₆	500ppb	XDS-7HB	HBr	10ppm			
XDS-7SE	H ₂ Se	250ppb	XDS-7NO	NO	100ppm			

Contact us for information on gases not included in the table.

Option : Sensor stocker model EC-7 (Up to 6 sensors)



- Use the sensor stocker to supply power to the sensor units.

Specifications

Model	XPS-7
Detection Principle	Electrochemical cell
Gas Detected	Semiconductor manufacturing gases
Gas Sampling Method	Extractive
Detection Range	Depends on the specifications
Resolution	1/100 of full scale
Indication Accuracy	±10% of full scale
Alarm Mode	2nd stage alarm type
Alarm Indication	Intermittent buzzer, flashing lamp
Response Time	60s or less (60% response)
Operating Temperature	0 to 40C
Power Source	4× AA alkaline dry cells (*2) or an AC adaptor
Battery Life (*2)	Up to 12 hours (by alkaline dry cells at 20C without alarms)
Dimensions	W62×H150×D128mm (excluding protrusions)
Weight	Approx. 1.3kg
Standard accessories	Gas sampling hose with probe, Shoulder strap, 4× AA alkaline dry cells, Spare filters
Optional Accessories	AC adaptor (100 VAC/6 VDC), Sensor stocker, Log data collection kit

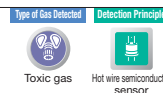
*1 Under identical measurement conditions.

*2. Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

Toxic Gas Detectors

Gas leak detector for semiconductor manufacturing gases

XP-703D



Features

- Best suited for detecting trace leaks of semiconductor manufacturing gases.
- Detects gas leaks and alerts you by lamp and buzzer.

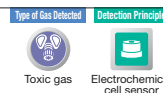
Specifications

Model	XP-703D				
Detection Principle	Hot wire semiconductor				
Sampling Method	Extractive				
Gas Detected	Semiconductor manufacturing gases (arsine, phosphine, diborane, silane, etc.)				
	arsine	phosphine	diborane	silane	hydrogen
	AsH ₃	PH ₃	B ₂ H ₆	SiH ₄	H ₂
Minimum Detectable Leak rate	1.0×10 ⁻⁷	1.5×10 ⁻⁷	0.5×10 ⁻⁷	2.5×10 ⁻⁷	5×10 ⁻⁷ Pa · m ³ /s
Minimum Detectable Concentration	0.2	0.3	0.1	0.5	1.0ppm
Response Time	10s or less				
Detection Indication	Intermittent buzzer and flashing lamp				
Power Source	4× AA (R6) manganese dry cells				
Battery Life	Up to 9 hours by alkaline dry cells (Up to 3 hours by manganese dry cells)				
Operating Temperature	0 to 40°C				
Dimensions	W68 × H155 × D32mm				
Weight	Approx. 400g				
Standard Accessories	Soft case, Probe with filter/moisture trap, Check gas, Standard attachment, 4× AA (R6) manganese dry cells, Spare filters				
Optional Accessories	Earphone				

Multi-Gas Detectors

COSMOS Personal Gas Monitor XX-2200 Series Carbon monoxide/Oxygen detector

XOC-2200



(Actual size)

Features

- Can be used continuously for 5000 hours.
- Available with loud buzzer, alarm lamp from 4 dimensions, and peak hold function.
- Available with TWA (Time Weighted Average) gas concentration display, memory of peak value, and peak hold function.
- Available with gas calibration kit (Optional)

Specifications







Model	XOC-2200	
Gas Detected	Oxygen (O ₂)	Carbon Monoxide (CO)
Detection Principle	Galvanic cell	Electrochemical cell
Sampling Method	Diffusion	
Measuring Range (Service Range)	0-25vol% (25-50vol%)	0-300ppm: 1ppm, (350-2,000ppm: 50ppm)
Resolution	0.1vol%	0-350ppm: 1ppm 350-2,000ppm: 50ppm
Indication Accuracy *1	Within±0.5vol%	Within±30ppm
Alarm Set Value	1st stage: 19.5vol% 2nd stage: 18.0vol%	1st stage: 50ppm, 2nd stage: 150ppm, 150ppm-h (time weighted average)
Response Time *2	20s or less	30s or less
Display Mode	LCD (Manual backlight)	
Alarm Mode	Buzzer sounds, flashing red light, vibrator	
Functions	Remaining battery level, peak hold, peak value memory, readout of time weighted average, remaining battery level, alarm functions except gas alarm (time weighted average, sensor malfunction, battery level, zero-adjustment malfunction), gas calibration, gas concentration indication	
Operating Temperature	-10°C to 40°C, 30-90% RH (non-condensing)	
Operating Air Pressure	Air pressure±10%	
Power source *3	1 × AAA alkaline dry cell	
Battery Life	Up to 5,000 hours (at 20°C with less than 20ppm)	
Dimensions	W65 × D22 × H64mm (excluding protrusions)	
Weight	approx. 75g (including battery)	
Standard Accessories	1 × AAA alkaline dry cell, 1 × safety pin adaptor (with fixing screw)	

*1 Under identical measuring conditions.

*2 Operating at 20±2°C.

*3 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

"Mini" Multi-Gas Detector XA-900 Series

Type of Gas Detected			Detection Principle		
					
Combustible gas	Oxygen concentration	Toxic gas	Catalytic combustion sensor	Galvanic cell sensor	Electrochemical cell sensor



Good Design Product
Selected by METI Japan

Features

- A range of gas variations are possible by combining detected gases. Fifteen combination patterns are possible.
- Long service life has been achieved through greatly reduced power requirements. No need to change batteries for 48 hours when using combinations with combustible gases, or for 2,000 hours when using combinations without combustible gases.

Options

Pump Unit

- Used as a Extractive type when connected to "Mini" Multi-gas Detector XA-900 series (for one gas and two gases only).

Throw-in Set

- Can be used to detect gas in pits or manholes (for one gas and two gases only).

Specifications

Gas Detected	Combustible gas (methane or isobutane)	Oxygen	Hydrogen sulfide	Carbon monoxide
Detection Principle	Catalytic combustion	Galvanic cell	Electrochemical cell	Electrochemical cell
Detection Range	0-100%LEL (1%LEL resolution)	0-25.0vol% (0.1vol% resolution)	0-30.0ppm (0.5ppm resolution)	0-300ppm (5ppm resolution)
Indication Accuracy *1	±10% of full scale value	±0.5vol%	±5% of full scale value	±10% of full scale value (1-150ppm)
Alarm Set Value	1st stage: 10%LEL 2nd stage: 25%LEL	Lower limit: 18.0vol% Upper limit: 25.0vol%	1st stage: 10.0ppm 2nd stage: 20.0ppm	1st stage: 50ppm 2nd stage: 150ppm
Alarm Accuracy *1	±25% of Set Value	±1.0vol%	±30% of Set Value	±30% of Set Value
Response Time	30s or less (90% response)	20s or less (90% response)	30s or less (90% response)	30s or less (90% response)
Concentration Indication	3-digit LCD (When two gases are selected, the concentrations are displayed alternately in every five seconds.)			
Alarm Indication	1st stage: Intermittent buzzer and LCD "AL" part flashing 2nd stage: Continuous buzzer and LCD "AL" part lighting			
Power Source	3×AA (R6) alkaline dry cells			
Battery Life *2	Combustible gas combined : Up to 48 hours (by alkaline cells) Combustible gas NOT combined : Up to 2000 hours (by alkaline cells)		Battery remaining indication : 4-level display in LCD "BATT." part Low battery : Intermittent buzzer and LCD "BATT." part flashing	
Additional Functions	Gas concentration peak hold function, Auto-zero function (except oxygen), Earphone terminal			
Explosion-Proof Structure	Ex iad IIC T4 (with combustible gas) Ex ia IIC T4 (without combustible gas)			
Operating Temperature Range	-10 to 40°C		0 to 40°C	
Dimensions/Weight	W56 × H121 × D32mm (excluding protrusions) Approx. 165g (excluding batteries)			

*1 Under identical conditions.

*2 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

"Mini" Type List







Gas Detected	Diffusion	Extractive
Combustible gas	XA-911	XP-911
Oxygen	XA-912	XP-912
Hydrogen sulfide	XA-913H	XP-913H
Carbon monoxide	XA-913C	XP-913C
Combustible gas/Oxygen	XA-927	XP-927
Combustible gas/Hydrogen sulfide	XA-924H	XP-924H
Combustible gas/Carbon monoxide	XA-924C	XP-924C
Oxygen/Hydrogen sulfide	XA-925H	XP-925H
Oxygen/Carbon monoxide	XA-925C	XP-925C
Hydrogen sulfide/Carbon monoxide	XA-926	XP-926
Combustible gas/Oxygen/Hydrogen sulfide	XA-936H	—
Combustible gas/Oxygen/Carbon monoxide	XA-936C	—
Combustible gas/Hydrogen sulfide/Carbon monoxide	XA-937	—
Oxygen/Hydrogen sulfide/Carbon monoxide	XA-938	—
Combustible gas/Oxygen/Hydrogen sulfide/Carbon monoxide	XA-948	—

Types printed in bold characters have an explosion-proof structure.

Multi-Gas Detectors

Oxygen/Combustible gas/Hydrogen Sulfide/Carbon Monoxide detector digital

XP-302M

Type of Gas Detected		Detection Principle			
					
Combustible gas	Oxygen concentration	Toxic gas	Catalytic combustion sensor	Galvanic cell sensor	Electrochemical cell sensor



Ordering information

Model	Specification code
XP-302M-□-□	□-□
Choose one from A - C	
Choose one from 1 - 4	
A	4 gases (Combustible, Oxygen, Hydrogen sulfide, Carbon monoxide)
B	3 gases (Combustible, Oxygen, Hydrogen sulfide)
C	3 gases (Combustible, Oxygen, Carbon monoxide)

※ Combustible : Methane or LPG

Features

- Compact and Lightweight.
- Large, bright display with auto-backlight.
- 4 gas simultaneous gas display.


Specifications

Model	XP-302M			
Gases Detected	Combustible Gas (Methane or LPG)	Oxygen	Hydrogen Sulfide	Carbon Monoxide
Detection Principle	Catalytic combustion	Galvanic cell	Electrochemical cell	Electrochemical cell
Gas Sampling Method	Extractive			
Measuring Range (Service range)	0-100%LEL	0-25.0vol% (25.1-50.0vol%)	0-30.0ppm (30.1-150ppm)	0-150ppm (151-300ppm)
Indication Accuracy (Repeatability)*1	< ±5%LEL	< 0.5vol%	< ±1.5ppm	< ±10ppm to 100ppm < ±15ppm to 150ppm
Alarm Set Value	1st stage 10%LEL 2nd stage 30%LEL	19.5vol% 18.0vol%	10.0ppm 15.0ppm	50ppm 100ppm
Response Time*2	with a 1m sampling hose < 25 sec. with an 8m sampling hose < 40 sec.	< 20 sec.	< 30 sec.	< 30 sec.
Operating Temperature & Humidity	-10 to 40°C, 95% RH (non-condensing)			
Power Source	4 × AA alkaline dry cells			
Display	A large LCD with backlight provides simultaneous and continuous readout of all gases being monitored. 3 user-selectable display modes (standard display / graphic display / English display).			
Alarms	90+ dB buzzer, flashing LCD and warning lamp			
Operating Hours*3	8+ hours on 4 × AA alkaline cells (20°C, no alarm, no backlight and datalogging OFF)			
Safety Design	Intrinsically safe design Exibd II BT3			
Functions	•Automatic backlight (in dim light or alarm condition) •Zero adjustment •Peak hold •Buzzer control •Low flow alarm •Datalogging function (up to 150 hours) •Buzzer stop •Alarm test •Display of remaining battery level, current time and temperature			
Dimensions	Approx. W152 × H152 × D42 mm			
Weight	Approx. 870g			
Standard Accessories	XP-302M-□-1* XP-302M-□-2* XP-302M-□-3* XP-302M-□-4*	1m sampling hose (Probe with filter/moisture trap, Spare filters) Soft case 8m sampling hose (with float), Soft case and carrying case Aluminum case** , 8m sampling hose (with float), An external alarm (with 8m cable) and AC adaptor Aluminum case** , 8m sampling hose with hose reel (with float), An external alarm with a cable reel (with 8m cable) and AC adaptor		
Optional Accessories*5	•Log data download software (for Windows 2000 or XP) •20m sampling hose for float •30m sampling hose for float			

*1 Under identical conditions *2 T90 *3 It depends on the environmental conditions, service conditions, storage period, and battery manufacturers
*4 Non explosion-proof type *5 Please contact our dealers / distributors for available accessories

COSMOS Personal Gas Monitor XX-2100 Series Hydrogen Sulfide/Oxygen detector

XOS-2200

Type of Gas Detected	Detection Principle
	
Toxic gas	Electrochemical cell sensor



Features

- Can be used continuously for 5000 hours.
- Available with loud buzzer, alarm lamp from 4 dimensions, peak hold function.
- Available with TWA (Time Weighted Average) gas concentration display, memory of peak value, and peak hold function.
- Thin, lightweight design.
- Available with gas calibration kit (Optional).

Specifications

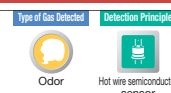
Model	XOS-2200	
Gas Detected	Oxygen (O2)	Hydrogen Sulfide (H2S)
Detection Principle	Galvanic cell	Electrochemical cell
Sampling Method	Diffusion	
Detection Range (Service Range)	0-25vol% (25-50vol%)	0-30.0ppm (30.1-100ppm)
Resolution	0.1vol%	0-35.0ppm: 0.1ppm 35-100ppm: 5ppm
Indication Accuracy *1	Within ±0.5vol% ±1 digit	Within ±1.5ppm ±1 digit
Alarm Set Value	1st stage 19.5vol% 2nd stage 18.0vol%	10.0ppm 15.0ppm
Response Time *2	20s or less	30s or less
Display Mode	LDC (Manual backlight)	
Alarm Mode	Buzzer sounds, flashing red light, vibrator	
Functions	Remaining battery level, peak hold, memory of peak value, alarm functions except gas alarm (sensor malfunction, remaining battery level, air-adjustment malfunction), gas concentration indication.	
Operations Temperature	-10°C to 40°C, 30-85% RH (non-condensing)	
Operation Air Pressure	Air pressure ±10%	
Power Source	1 × AAA alkaline dry cell (LR03)	
Battery Life *3	Up to 5000 hours (at 20°C without alarm)	
Dimensions	W65×D22×H64mm (excluding protrusions)	
Weight	Approx. 75g (including battery)	
Standard Accessories	1 × AAA alkaline dry cell, 1 × safety pin adaptor (with fixing screw)	

*1 Under identical measuring conditions. *2 Assuming 90% response and operating at 20 ±2°C.
*3 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

Serve Diverse Purposes with Wide Variety of Sensors

Portable odor level indicator

XP-329ⅢR



Features

- Instant digital display of odor intensity.

Applications

- Performance check on deodorizing apparatus and air cleaners.
- Measuring smells of factory exhaust, waste water, and drainage.
- Quality control of foods and spices.

Specifications

Model	XP-329ⅢR
Substance Measured	Various odors, odor components
Detection Principle	Indium oxide-based sensitivity hot wire semiconductor sensor
Sampling Method	Extractive *Extractive flow: 400±150ml/min
Display	LCD digital indication (64 × 128 dots matrix) (measurement value, measurement mode, operating conditions, remaining battery level, data memory, bar indication for sensor output and communication channel etc.)
Measurement Mode	Monitoring mode・Batch mode
Detection Range	Level indication: 0-2000 (In case of zero-based setting at the 2nd dot from the left in the sensor output bar graph)
Repeatability	Measurement value±5%±1 digit *1 level indication
Response Time	20s or less (90% response) by calibrated odor
External Output	Analog output: Level indication: 0000-2000 corresponding to DC0-200 mV. (0.1mV as contrasted with indication 1) (Except approx. 204.8mV in case of OVER LEVEL) Digital input/output: RS-232C output the indicated value (ASCII Code) (Except in case of OVER LEVEL, output [****])
External Output Terminal	DIN connector for both analog output and digital input/output
Operating Temperature and Humidity	Temperature: 0 to 40°C Humidity: 10-80%RH (non-condensing)
Dimensions	W84 × H275 × D40mm (excluding protrusions)
Weight	Approx. 640g (including batteries)
Power Source	4 × AA alkaline dry cells or AC adaptor
Battery Life	Up to 8 hours by alkaline cells, low battery alarm function
Standard Accessories	Activated carbon filter, Drain filter, Sample draw attachment, Tube intake, AC adaptor, Carrying case, Output connector, Communication pack (CD), 4 × AA alkaline dry cells, Teflon tube (1m), 2 × Activated carbons, 2 × Filter elements (10 pcs.), Instruction manual, Test report

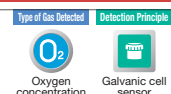
*1 Under identical measuring conditions.

Flue Gas Detectors

Provide Maximum Convenience of Operation for Combustion Efficiency of Combustion Appliances

Digital oxygen indicator for combustion control

XP-3180E



Features

- Suitable for measuring concentration of oxygen in the flue gas of boilers etc.

Specifications

Model	XP-3180E
Gas Detected	Oxygen in the flue gas
Detection Principle	Galvanic cell
Sampling method	Extractive
Detection Range	0-25.0vol%
Indication Accuracy (Under identical conditions)	±0.3vol% (Compliant with JIS 8201)
Alarm Set Value	18.0vol%
Display	LCD digital (with back light) Digital display Digital bar display
Alarm Indication	Gas alarm; Intermittent buzzer, Red lamp flashing Trouble alarm; Buzzer, Red lamp flashing, LCD display
Explosion-Proof Structure	Exib II BT3
Operating Temperature	0 to 40°C
Power Source	4 × AA alkaline dry cells
Battery Life *1	Up to 100 hours
Dimensions	W82×H162×D36mm
Weight	Approx.450g
Standard Accessories	Soft case, 4 × AA alkaline dry cells, Gas sampling hose(1m), Probe with cooling drain filter
Optional Accessories	2-10m gas sampling hose, Curled probe, Data download software (CD-ROM software and USB cable)

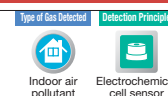
*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

Indoor Air Pollutant Detectors

Simple Operation Formaldehyde and VOCs Detector

Portable and simplified Formaldehyde detector

FORMTECTOR XP-308B



Features

- No need to replace reagents for each measurement.
- Select either mg/m³ or ppm as the displayed measurement mode for the measurement time.
- Select either the 30-min or 10-min measurement mode for the measurement time.
- Fully automatic operation simply by pushing operation buttons at the site of measurement.
- Random access to measurement data after measurement (up to 32 values).
- Reduced influence of VOCs through the use of DNPH filter.

Applications

- Indoor air control.
- Housing material control.
- Checking remodeling byproducts.

Specifications

Model	XP-308B
Substance Detected	Formaldehyde
Detection Principle	Electrochemical cell (Influence of VOCs reduced by DNPH filter.)
Detection Range	0.01 to 0.38mg/m ³ (Service range: 0.39 to 3.00mg/m ³) 0.01 to 0.30ppm (Service range: 0.31 to 3.00ppm)
Sampling Method	Extractive
Measurement Time	30min/10min measurement mode (selectable)
Power Source	6× C dry cells or AC adaptor (9VDC)
Battery Life *1	30-min measurement mode : Up to 50 measurement operations by manganese dry cells(10-min measurement mode : Up to 100 measurement operations by manganese dry cells)
Filter Life *2	30-min measurement mode : 50 measurement operations (10-min measurement mode : 100 measurement operations)
Operating Temperature	5 to 40°C
Display	Digital numbers, Message, Bar graph
Dimensions	W175 × H140 × D86mm
Weight	Approx. 2.5kg
Standard Accessories	3× DNPH Filters, 6× C manganese dry cells, Soft case, Sampling tube, Ten filter elements, Tweezers
Optional Accessories	AC adaptor, External output cable, Data reception software

*1 Battery life may vary with storage conditions, conditions of use, storage period, battery manufacturers, etc.

*2 These values are for an average formaldehyde concentration per measurement of 0.01mg/m³. The battery life will be shortened at higher concentrations.

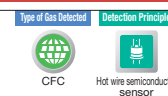
Considerations for Use

- Measured value can be influenced if aldehyde group other than formaldehyde, like acetaldehyde, coexists.
- Cigarette smoke or alcohol like liquor will cause measurement errors.
- Sudden change in environment, such as temperature and humidity, will cause measurement errors.

Others

HCFC/HFC detector

XP-704



Features

- Newly developed low-power hot wire semiconductor sensor for HCFCs and HFCs realized super-sensitive detection.
- Compact, lightweight, and easy to use! Furthermore, it's Extractive type.
- Detection indicated in two ways - lamp and buzzer.
- Far more sensitive than leak detection liquid (soapy water etc.), and easier to use.

Specifications

Model	XP-704
Detection Principle	Hot wire semiconductor
Gas Detected	R-22, R-123, R-23, R-32, R-134a, R-142b, R-404A, R-407A, R-407C, R-407E, R-410A, R-507A, R-290, R-600a, R-707 * Please specify gas to be detected.
Sampling Method	Extractive
Minimum Detectable Concentration	5ppm
Minimum Detectable Leak Rate	2.1×10 ⁻⁶ Pa · m ³ /s 2.8g/year leak
Response Time	10s or less
Detection Indication	Intermittent buzzer and flashing lamp
Power Source	4× AA (R6) dry cells
Battery Life *1	Up to 3 hours (by manganese dry cells) Up to 9 hours (by alkaline dry cells)
Low Battery	BATT. Lamp goes off
Operating Temperature	0 to 40°C
Dimensions	W68 × H155 × D32mm
Weight	Approx. 400g
Standard Accessories	Probe with filter/moisture trap, Check gas, Filter element, Soft case, 4× AA (R6) manganese dry cells, Spare filters
Optional Accessories	Earphone

*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

SDM-72



Features

- Enables diagnosis of the wear condition of bearings before an increase in vibration.
- Simple operation - simply place the grease sample.

Applications

- Simple diagnosis and trend monitoring of the wear condition of greased bearings, gears, etc.
- Pre-diagnosis for Ferrography method and SOAP method.

Specifications

Model	SDM-72
Measurement Principle	Magnetic balance type electromagnetic
Substance Measured	Steel dust concentration in grease
Measurement Range	0-5.00wt%
Resolution	0.001wt%
Zero Adjustment	Automatic adjustment
Amount of Sample	Approx. 0.8ml
Power Source	4× AA (R6) alkaline dry cells or AC adaptor
Battery Life *1	Up to 30 hours by alkaline cells
Operating Temperature	0 to 40°C
Dimensions	W84 × H190 × D40mm
Weight	Approx. 500g (including batteries)
Standard Accessories	Carrying case, Grease sampling spatula, Grease sample case (10 pieces), 4× AA (R6) alkaline dry cells
Optional Accessories	AC adaptor

*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

SDM-73



Features

- Enables simple diagnosis and trend monitoring of the wear condition of bearings, gears, cylinders, etc. by checking steel dust concentration in lubricating oil.
- Simple operation - simply place the oil sample.

Applications

- Simple diagnosis of the wear condition of bearings, gears, cylinders, etc. in rotational equipment.
- Monitoring steel dust contamination in hydraulic oil and grinding oil.

Specifications

Model	SDM-73
Measurement Principle	Magnetic balance type electromagnetic induction method
Substance Measured	Steel dust concentration in lubricating oil
Measurement Range	0-19999wt ppm
Resolution	1wt ppm
Zero Adjustment	Automatic adjustment
Amount of Sample	1.5ml
Power Source	4× AA (R6) alkaline dry cells or AC adaptor
Battery Life *1	Up to 30 hours by alkaline cells
Operating Temperature	0 to 40°C
Dimensions	W84 × H190 × D40mm
Weight	Approx. 500g (including batteries)
Standard Accessories	Carrying case, 2ml syringe (5 pieces), Oil sampling nozzle (2 pieces), Syringe holder, 4× AA (R6) alkaline dry cells
Optional Accessories	AC adaptor

*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufacturers, etc.

We are ISO 9001 certified for our design, manufacturing, sales, and service operations at our head office, branches and factories.



Registered No. : JQ 064C











We obtained the ISO 14001 International Environmental Management System certification at head office.



Type of Gas Detected

- | | |
|---|---|
| 
Combustible gas | 
Toxic gas |
| 
Oxygen concentration | 
CFC |
| 
Ozone | 
Oil |
| 
Odor | 
Steel dust concentration |
| 
Indoor air pollutant | 
Others |

Detection Principle

- | | |
|--|--|
| 
Hot wire semiconductor sensor | 
Catalytic combustion sensor |
| 
Thin film semiconductor sensor | 
Semiconductor sensor |
| 
Thermal conductivity sensor | 
Electrochemical cell sensor |
| 
Galvanic cell sensor | 
Orgastor sensor |
| 
Electrochemical sensor with gel electrolyte | 
Infrared sensor |



Safety warning

- Read the operating instructions thoroughly before use. Always operate in accordance with the instructions.
- Be sure to choose the sensor designed to detect the required type of gas. Use of the wrong sensor type could cause an accident.



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* The information contained in this catalog is subject to change.

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