

**Rugged, stylish body to meet any field requirements!**

# Handy Type Gas Leak Detector

**Model SP-220 TYPE FUM  
Model SP-220 TYPE SC**

CE Marking-compliant product



 **For fumigation gas  
(TYPE FUM)**

 **For semiconductor  
material gas  
(TYPE SC)**

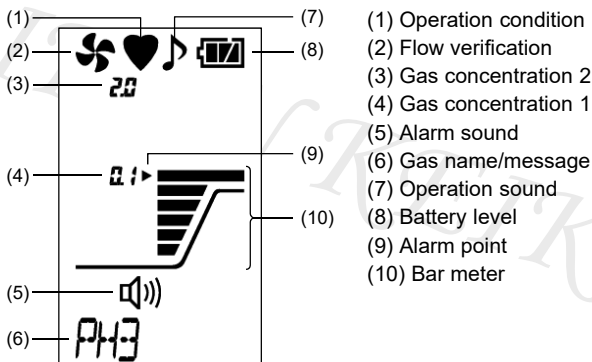
- **Compact and lightweight, with rugged body**  
Greater shock resistance, protection class equivalent to IP55, with protective cover to prevent dirt.
- **Quick and reliable detection of low-concentration gases**  
Newly developed sensor allows detection of low-concentration gases (from 0.1 ppm).
- **Button operation to directly detect a wide range of gas concentrations**  
Switch measurement gases between seven types of fumigation gases and 40 types of semiconductor material gases.
- **Equipped with data logger function**  
Up to 256 logs including the date, time and gas concentration of detected gases can be stored.
- **With LED light**  
Take accurate measurements by identifying measurement spots even in dark places.

## Specifications

Model	SP-220 (TYPE FUM)	SP-220 (TYPE SC)
Detection target gas	Fumigation gas See "Detection Target Gas List" on the right	Semiconductor material gas See "Detection Target Gas List" on the right
Detection principle	Hot-wire semiconductor	
Detection range	Depends on detection target gas	
Sampling method	Pump suction type	
Alarm setpoint	Depends on detection target gas	
Gas alarm operation	Lamp blinking, intermittent buzzer sounding	
Gas alarm reset operation	Auto-reset	
Fault alarm	Sensor abnormality, low battery voltage, low flow rate, system abnormality, calibration abnormality, clock abnormality, pump abnormality	
Fault alarm operation	Lamp blinking, intermittent buzzer sounding and fault detail display	
Fault alarm reset operation	Self-latching	
Response time	Within ten seconds of 0.1 ppm alarm by contact with 0.3 ppm calibration gas (PH <sub>3</sub> )	
LCD display contents	Operation condition, flow verification, alarm sound, operation sound, battery level, gas concentration (bar meter), mode, gas name/message	
Power supply	AA alkaline battery: 2	
Continuous operating time	Approx. 13 hours (25°C, without alarms or lighting)	
Operating temperature/humidity range	-20 to +55°C, 95%RH or less (no condensation)	
External dimensions	Approx. 43 (W) x 200 (H) x 39 (D) mm (tapered nozzle excluded)	
Weight	Approx. 215 g (without batteries)	
Protection class	Equivalent to IP55	
Display items	<ul style="list-style-type: none"> <li>• LCD manual backlight (automatically lights up in response to an alarm)</li> <li>• Log data • Peak • Clock</li> </ul>	
Accessories	Hand strap, tapered nozzle, unit protective cover, waterproofing filter for replacement (5 pcs), 2 AA alkaline dry batteries	
Optional (sold separately)	Data logger management program (model: SW-SP-220)	

\* This product is used for detecting ultra-low gas leaks, so the gas concentration values are approximations.

## Screen Display



### • SP-220 (TYPE FUM) Detection Target Gas List

Gas No.	Gas Name (Standard Name)	Display	Concentration Display 1 (ppm)	Concentration Display 2 (ppm)	Concentration Display 3 (ppm)
1	Phosphine	PH <sub>3</sub>	0.1	2.0	4.5
2	Methyl bromide	CH <sub>3</sub> Br	1	20	100
3	Carbon disulfide*	CS <sub>2</sub>	0.1	-	-
4	Methyl iodide	CH <sub>3</sub> I	1	10	30
5	Hydrogen cyanide	HCN	1	-	-
6	Sulfuryl fluoride	SO <sub>2</sub> F <sub>2</sub>	-	-	800
7	Ethylene bromide*	C <sub>2</sub> H <sub>4</sub> Br <sub>2</sub>	1	10	30

\* Gases that are prohibited from use in Japan.

### • SP-220 (TYPE SC) Detection Target Gas List

Gas No.	Gas Name (Standard Name)	Display	Concentration Display 1 (ppm)	Concentration Display 2 (ppm)
1	Phosphine	PH <sub>3</sub>	0.1	2.0
2	Acetone	C <sub>3</sub> H <sub>6</sub> O	1	10
3	Arsine	AsH <sub>3</sub>	0.2	-
4	Ammonia	NH <sub>3</sub>	10	-
5	Isobutane	i-C <sub>4</sub> H <sub>10</sub>	1	10
6	Isopropyl alcohol	IPA	1	10
7	Carbon monoxide	CO	10	30
8	Ethyl alcohol	C <sub>2</sub> H <sub>5</sub> OH	1	10
9	Ethylene	C <sub>2</sub> H <sub>4</sub>	1	10
10	Vinyl chloride	VCM	1	-
11	Methyl chloride	CH <sub>3</sub> CL	1	10
12	Xylene	C <sub>8</sub> H <sub>10</sub>	1	10
13	Ethylene oxide	EO	1	10
14	Silane	SiH <sub>4</sub>	0.5	-
15	Methyl bromide	CH <sub>3</sub> Br	1	20
16	Hydrogen	H <sub>2</sub>	1	10
17	Trichloroethylene	C <sub>2</sub> HCL <sub>3</sub>	10	-
18	Toluene	C <sub>7</sub> H <sub>8</sub>	1	10
19	1,2-Dichloroethane	EDC	1	10
20	Sulfur dioxide	SO <sub>2</sub>	1	-
21	Propane	C <sub>3</sub> H <sub>8</sub>	5	20
22	R-134a	R-134a	50	250
23	R-22	R-22	10	50
24	R-32	R-32	10	50
25	Normal hexane	n-C <sub>6</sub> H <sub>14</sub>	10	50
26	Benzene	C <sub>6</sub> H <sub>6</sub>	0.5	10
27	Formaldehyde(HCHO)	HCHO	10	50
28	Methane	CH <sub>4</sub>	1	20
29	Methyl alcohol	CH <sub>3</sub> OH	1	10
30	Methyl ethyl ketone	MEK	1	10
31	Hydrogen sulfide	H <sub>2</sub> S	0.1	-
32	Diborane	B <sub>2</sub> H <sub>6</sub>	0.1	-
33	Germane	GeH <sub>4</sub>	0.2	-
34	Hydrogen bromide	HBr	10	-
35	Hydrogen chloride	HCL	10	-
36	R-407C	R-407C	10	50
37	Hydrogen selenide	H <sub>2</sub> Se	0.5	-
38	R-410A	R-410A	10	50
39	R-404A	R-404A	10	50
40	HFO-1234yf	CH <sub>2</sub> C <sub>2</sub> F <sub>4</sub>	10	30

\* "-" in the table indicates items that only have a bar display, and do not have a scale.

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