

# Includes 25 Programmed Target Gases

# Portable combustible gas detector

## Model GP-1000

(Manufactured in Japan)

Target gas Select function

Methane, Iso-Butane, Hydrogen, Toluene, Xylene, Alcohol etc.  
25 different target gases can be selected for direct readout



### Target gas is selectable

Direct reading is selectable from a list of 25 gases. Calibration to only 1 gas (CH<sub>4</sub>) is needed.

### Pump booster function

Pump speed selectable from 0.3ml/min to 0.6ml/min. Gas can be sampled faster or from longer distance with higher pump rate.

### Intrinsically safe

Safety rating Exia IIC T4 allows users to detect a gas at Zone 0 hazardous area where explosion hazards always exists.

### Ingress protection rating IP67

Water proof, Dust proof construction for outdoor use meets IP67 rating.

### Filters (optional) can be used with standard gas sampling probe

H<sub>2</sub>S removal filter, silicone removal filter can be installed in standard gas sampling probe. Hydrogen sulfide or silicone that would damage sensor in GP-1000 can be removed by these filters.

## Specification

Model	GP-1000
Gas detected	Combustible gas (CH <sub>4</sub> , HC etc. Refer to the gas list)
Sensor principle	Catalytic combustion
Detection range	0 ~ 100%LEL
Alarm types	Gas alarm: Latching, 1 <sup>st</sup> and 2 <sup>nd</sup> alarm Trouble alarm: Low flow, sensor disconnection, low battery voltage, Circuit abnormality, detection range abnormality
Alarm methods	Gas alarm: Intermittent buzzer, flashing lights, gas concentration reading blinks Trouble alarm: Continuous buzzer, flashing lights, trouble condition is displayed
Preset alarms	1st: 10%LEL, 2nd: 50%LEL
Indication accuracy	Full scale +/- 5% (at same condition)
Response time	Within 30 seconds (T90)
Sampling method	Sample-draw, Flow rate > 0.3L/min (Approx. 0.6L/min for pump boosting mode)
Indication precision	Digital LCD with 7 segments + Bar meter (50 segment) + Status information Digital numeral 7 segments indication: 0 - 100%LEL Digital bar meter indication: Auto range (0 ~ 10%LEL / 0 ~ 100%LEL) 0 ~ 10 %LEL (L range) 0 ~ 100 %LEL (H range)
Power source	AA alkaline battery, 4pcs
Continuous operation	More than 20 hours (new battery, no alarm and no indication, at 25°C)
Operating temp. & humidity	Operating temperature -20 ~ 50°C [-4 ~ 122°F] Operating humidity 0 ~ 95%RH (Non-condensing) Storage temperature -25 ~ 60°C [-13 ~ 140°F] Storage humidity 0 ~ 95%RH (Non-condensing)
Dimension	80.1 (W) × 124 (H) × 36 (D) mm (3.15 (W) × 4.88 (H) × 1.42 (D) inches)
Weight	Approx. 260g (9.2 oz.) (exclude alkaline battery)
Water dust proof	IP 67
Safety design	Intrinsically safety ExialICT4
Approvals	Ex-proof: IECEx, ATEX Other: CE marking
Function	LCD backlight, data log, log data indication, peak indication, pump boosting, gas select

## Standard accessory



Hand strap



Sampling probe  
(with water trap function)

## Optional accessory



Carrying case



Protection film



Cartridge filter  
• Silicone removal  
• H<sub>2</sub>S removal



Data logger  
management program

## Target gases

Sensitivity curve for 25 gases is originally loaded in GP-1000.  
Target gas can be switched by button operation.

No.	Gas list	Name indicated on LCD	Lower explosion limit LEL
1	Methane	CH <sub>4</sub>	5.0vol%
2	Isobutane	i-C <sub>4</sub> H <sub>10</sub>	1.8vol%
3	Hydrogen	H <sub>2</sub>	4.0vol%
4	Methanol	CH <sub>3</sub> OH	5.5vol%
5	Acetylene	C <sub>2</sub> H <sub>2</sub>	1.5vol%
6	Ethylene	C <sub>2</sub> H <sub>4</sub>	2.7vol%
7	Ethane	C <sub>2</sub> H <sub>6</sub>	3.0vol%
8	Ethanol	C <sub>2</sub> H <sub>5</sub> OH	3.3vol%
9	Propylene	C <sub>3</sub> H <sub>6</sub>	2.0vol%
10	Acetone	C <sub>3</sub> H <sub>6</sub> O	2.15vol%
11	Propane	C <sub>3</sub> H <sub>8</sub>	2.0vol%
12	Butadiene	C <sub>4</sub> H <sub>6</sub>	1.1vol%
13	Cyclopentane	C <sub>5</sub> H <sub>10</sub>	1.4vol%
14	Benzene	C <sub>6</sub> H <sub>6</sub>	1.2vol%
15	n-Hexane	n-C <sub>6</sub> H <sub>14</sub>	1.2vol%
16	Toluene	C <sub>7</sub> H <sub>8</sub>	1.2vol%
17	Heptane	n-C <sub>7</sub> H <sub>16</sub>	1.1vol%
18	Xylene	C <sub>8</sub> H <sub>10</sub>	1.0vol%
19	Ethyl acetate	EtAc	2.1vol%
20	IPA	IPA	2.0vol%
21	MEK	MEK	1.8vol%
22	Methyl methacrylate	MMA	1.7vol%
23	Dimethylether	DME	3.0vol%
24	Methyl isobutyl ketone	MIBK	1.2vol%
25	Tetrahydrofuran	THF	2.0vol%

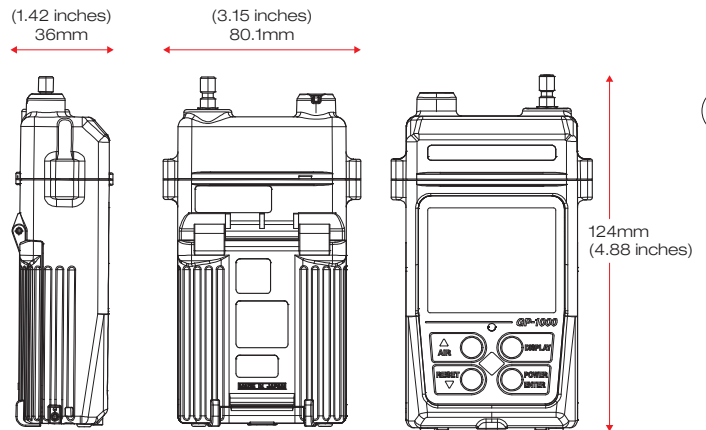
Note 1) Alarm accuracy, response time etc. are confirmed with calibration gas.

Note 2) Contact Riken Keiki if GP-1000 is required to be calibrated with other than CH<sub>4</sub>, i-C<sub>4</sub>H<sub>10</sub>, H<sub>2</sub>.

Note 3) Gas selection is not available when GP-1000 is calibrated with other than CH<sub>4</sub>, i-C<sub>4</sub>H<sub>10</sub>.

Note 4) The measuring results of the gas selection are intended for guidance only.  
For the most accurate measurements, GP-1000 should be calibrated using the target gas.

## Outer dimension



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