

Combustible gases are detectable at ppm range

# Portable combustible gas detector

**Model NC-1000** 

Target gas
Select function

(Manufactured in Japan)

Methane, Iso-Butane, Hydrogen, Toluene, Xylene, Alcohol etc. programed 25 different target gases are selectable for direct readout

Target gas is selectable

Direct reading is selectable from a list of 25 gases. Calibration to only 1 gas (CH4) is needed.

Pump booster function

Pump speed selectable from 0.35L/min to 0.6L/min. Gas can be sampled faster or longer distance with higher pump rate.

Intrinsically safe

Safety rating Exia I CT4 allows users to detect a gas at Zone 0 hazardous area where explosion hazards always exists.

Ingress proof rating IP67

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

• Filters (optional) can be used with standard gas sampling probe
H2S removal filter, silicone removal filter can be installed in standard gas sampling probe.
Hydrogen sulfide or silicone that would damage sensor in NC-1000 can be removed by these filters.

#### Specification

Model	NC-1000			
Gas detected	Combustible gas (CH4, HC etc. Refer to the gas list)			
Sensor principle	New ceramic			
Detection range	0-10000ppm			
Alarm types	Gas alarm: Latching, 1 <sup>st</sup> and 2 <sup>nd</sup> alarm  Trouble Low flow, sensor disconnection, low battery voltage, Circuit alarm: abnormality, detection range abnormality			
Alarm methods	Gas alarm: Continuous buzzer, flashing lights, gas concentration reading blinks Trouble alarm: Intermittent buzzer, flashing lights, trouble condition is displayed			
Preset alarms	1st: 250ppm、 2nd: 500ppm			
Indication	Low range: Full scale +/- 10% (at same condition)			
accuracy	High range: 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 (7 segments) + Bar meter (50 segments) + Status information Digital numeral 7 segments indication: 0 − 10000ppm Digital bar meter indication: Auto range 0~1000ppm (Low range) 0~10000ppm (High range)			
Power source	AA alkaline battery, 4pcs			
Continuous operation	CH4 version: Approx. 15 hours / HC version: Approx. 20 hours (New battery, no alarm and no light, at 25°C, pump Low mode)			
Operating temp. & humidity	Operating temperature $-20\sim50^{\circ}$ C, humidity $0-95\%$ RH (non condensing) Storage temperature $-25\sim60^{\circ}$ C, 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 logger, log data indication, peak indication pump boosting, gas select			

### Target gases

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

No.	Gas list	Name indicated on	Lower explosion limit
	Ods list	LCD	LEL
1	Methane	CH4	5.0vol%
2	Isobutane	i-C4H10 (HC)	1.8vol%
3	Hydrogen	H2	4.0vol%
4	Methanol	CH3OH	5.5vol%
5	Acetylene	C2H2	1.5vol%
6	Etylene	C2H4	2.7vol%
7	Ethane	C2H6	3.0vol%
8	Ethanol	C2H5OH	3.3vol%
9	Propylene	C3H6	2.0vol%
10	Acetone	C3H6O	2.15vol%
11	Propane	C3H8	2.0vol%
12	Butadiene	C4H6	1.1vol%
13	Cyclopentane	C5H10	1.4vol%
14	Benzene	C6H6	1.2vol%
15	n -Hexane	n-C6H14	1.2vol%
16	Toluene	C7H8	1.2vol%
17	Heptane	n-C7H16	1.1vol%
18	Xylene	C8H10	1.0vol%
19	Ethyl acetate	EtAc	2.1vol%
20	IPA	IPA	2.0vol%
21	MEK	MEK	1.8vol%
22	Methyl methacrylate	MAA	1.7vol%
23	Dimethylether	DME	3.0vol%
24	Methyl isobutyl ketone	MIBK	1.2vol%
25	Tetrahydrofuran	THF	2.0vol%

Note 1) Indication accuracy, response time etc. are confirmed with calibration gas. Note 2) Contact Riken Keiki if NC-1000 is required to be calibrated with other than CH4, i-C4H10. Note 3) Gas selection is not available when NC-1000 is calibrated with other than CH4, i-C4H10.

### Standard accessory



Hand strap





Alkaline battery



Sampling probe (with 0.75m sampling tube)

## Optional accessory



Carrying case





Protection film



Cartridge filter
• Silicone removal
• H2S removal



Gas sampling tube (5/10/20/30m)

### Outer dimension



