

For High Concentration Gas Measurement

# Portable Gas Detector

**MODEL NP-1000**

*ATEX intrinsic safe design  
Explosion proof: Exia II CT4  
Ingress protection rating: IP 67*



### Base gas is selectable

Base gas is selectable from 3 gases (Air, N<sub>2</sub> and CO<sub>2</sub>).

### Target gas is selectable

Direct reading is selectable from 5 gases. Only 1 gas (CH<sub>4</sub>) is required for calibration.

### Pump booster function

Higher pump rate gives faster sampling and long distance suction.

### Auto range switching

Automatically switch over from "Low-range" to "High-range" and "High-range" to "Low-range".

### 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 NP-1000 can be removed by these filters.

## Specifications

<b>Model</b>	NP-1000
<b>Gas to be detected</b>	CH <sub>4</sub> (C <sub>3</sub> H <sub>8</sub> , i-C <sub>4</sub> H <sub>10</sub> , He, Ar) / H <sub>2</sub>
<b>Detection principle</b>	Thermal conductivity
<b>Measurement range</b>	0 - 100 vol%
<b>Alarm type</b>	Gas Alarm: ON/OFF setting available (default: OFF), arbitrary alarm setpoint setting available, non-latching (auto-reset) Fault alarm: Flow rate low, poor sensor connection, battery voltage low, circuit abnormality, and calibration range abnormality
<b>Alarm operation</b>	Gas Alarm: Continuous buzzer sound, blinking of red lamp and gas concentration display (with alarm set to ON) Fault alarm: Intermittent buzzer sound, blinking of red lamp, fault detail display
<b>Accuracy of the reading</b>	±5 vol% (under the same conditions)
<b>Response time</b>	90% response: Within 30 seconds
<b>Detection method</b>	Pump suction type with a flow rate of 0.3 L/min or more (pump L mode)
<b>Display</b>	LCD seven-segment numeric display, bar meter display (50 divisions) and status information display Seven-segment digital display: 0 - 100 vol% Digital bar meter display: Auto range switching L range: 0 - 10.0 vol% / H range: 0 - 100 vol%
<b>Power supply</b>	AA alkaline battery x 4
<b>Continuous operating time</b>	About 30 hours (new batteries, without alarms or lighting, at 25°C )
<b>Operating environment</b>	Operating temperature range: -20 - +50°C Operating humidity range: 95%RH or less (non-condensing) Storage temperature range: -25 - +60°C Storage humidity range: 95%RH or less (non-condensing)
<b>External dimensions</b>	80.1 (W) x 124 (H) x 36 (D) mm (projection portions excluded)
<b>Weight</b>	Approx. 260 g (without batteries)
<b>Drip-proof and dust-proof performances</b>	Equivalent to IP-67
<b>Explosion-proof performance</b>	Intrinsically safe explosion-proof structure ExiallCT4
<b>Certification, etc.</b>	Explosion-proof certification: IECEx, ATEX, TIIS Others: CE marking
<b>Functions</b>	LCD backlight, data logger, log data display, peak display, switching pump performance between strong and weak, changing a reading target gas, balance gas selection

\* To meet the explosion-proof performance, use the batteries specified in the certification of explosion-proof.

## Gas list

No.	Gas	Symbol
1	Methane	CH <sub>4</sub>
2	Propane	C <sub>3</sub> H <sub>8</sub>
3	Isobutane	i-C <sub>4</sub> H <sub>10</sub>
4	Argon	Ar
5	Helium	He
※	Hydrogen	H <sub>2</sub>

※ There is a NP-1000 for H<sub>2</sub> detection only. If would like to detect H<sub>2</sub> gas, order the H<sub>2</sub> version. H<sub>2</sub> version cannot convert reading to other gases.

## Base gas

No.	Gas	Symbol
1	Air	Air
2	Nitrogen	N <sub>2</sub>
3	Carbon dioxide	CO <sub>2</sub>

## Accessories

•4 AA alkaline batteries



•Hand strap



•Gas sampling hose (1 m) and gas sampling probe



## Optional parts

•30m hose



•Dedicated leather case



•Filter



•2L gas sampling bag



•Data logger management program



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