

Portable 4 Gas Detector

MODEL:

**GX-Force**

## This gas detector is designed to assure safety.

The GX-Force features a rugged and easy-to-hold body, a 3-year sensor warranty, and 30-hour battery life. These attributes help assure safety.

- Easy-to-grip lightweight design; Approx. 280 g
- Three-year sensor warranty
- Intrinsically safe explosion-proof construction, flame-proof enclosure
- Continuous operating time: Approx. 30 hours
- Passes 3 m drop testing
- Protection rating equivalent to IP67

# GX-Force

Assured peace of mind

Sensor warranty

**3** years

Utilizes R Sensor for outstanding long-term stability. Three-year sensor warranty. Allows use with peace of mind.

Designed for ease of use

Continuous operating time

Approx. **30** hours

No need for daily recharge. (Approx. three times longer than previous model)  
Charger connector type: USB Type-C



LED light

Features top-mounted LED light. Helps work with a peace of mind in dark locations.



Light-weight design

Functionality-oriented design

Approx. **280** g

Easy-to-grip design. Lightweight design allows easy one-handed button operation. (Approx. 22 % lighter than previous model)

Outstanding durability



Passes **3 m** drop testing



Protection rating equivalent to **IP67**



Operating temperature range **-40 °C - +60 °C** (temporary use environment)



# Wide range of safety functions

## Combustible gas conversion function

Eliminates the need for troublesome calculations. Allows direct readout of 27 different combustible gas types. \* Settings are retained even when power is turned on and off.

### Combustible gases conversion list

| Gas type  | Conversion from CH <sub>4</sub> models | Conversion from HC models | Gas type  | Conversion from CH <sub>4</sub> models | Conversion from HC models | Gas type     | Conversion from CH <sub>4</sub> models | Conversion from HC models | Gas type            | Conversion from CH <sub>4</sub> models | Conversion from HC models | Gas type               | Conversion from CH <sub>4</sub> models | Conversion from HC models |
|-----------|--|---------------------------|-----------|--|---------------------------|--------------|--|---------------------------|---------------------|--|---------------------------|------------------------|--|---------------------------|
| Methane   | -                                      | ×                         | Ethane    | ○                                      | ×                         | Cyclopentane | ○                                      | ○                         | N-nonane            | ○                                      | ○                         | Methyl isobutyl ketone | ○                                      | ○                         |
| Isobutane | ○                                      | -                         | Ethanol   | ○                                      | ○                         | Benzene      | ○                                      | ○                         | Ethyl acetate       | ○                                      | ○                         | Tetrahydrofuran        | ○                                      | ○                         |
| Hydrogen  | ○                                      | ○                         | Propylene | ○                                      | ○                         | N-hexane     | ○                                      | ○                         | Isopropyl alcohol   | ○                                      | ○                         | Normal pentane         | ○                                      | ○                         |
| Methanol  | ○                                      | ○                         | Acetone   | ○                                      | ○                         | Toluene      | ○                                      | ○                         | Methyl ethyl ketone | ○                                      | ○                         |                        |  |                           |
| Acetylene | ○                                      | ○                         | Propane   | ○                                      | ×                         | N-heptane    | ○                                      | ○                         | Methyl methacrylate | ○                                      | ○                         |                        |  |                           |
| Ethylene  | ○                                      | ○                         | Butadiene | ○                                      | ○                         | Xylene       | ○                                      | ○                         | Dimethyl ether      | ○                                      | ○                         |                        |  |                           |

### Alarm setpoint setting function

Settings can be changed/configured on the GX-Force main unit. Supports control and management in accordance with the customer's own criteria.

### Confirmation beep function

Indicates that the product is functioning normally. The buzzer sounds at preset intervals while measurement is underway.

### Calibration notification function

Indicates the number of days until recommended regular maintenance when the power is turned on. Reminds the user to perform maintenance to ensure safe use.

# New R Sensor for outstanding long-term stability

The GX-Force incorporates/utilizes the newly developed R Sensor sensor series. The R Sensor features dramatically improved performance over conventional sensors.

The sensors are covered by a three-year warranty\* for peace of mind.

\* Assumes the sensor is inspected at least once a year.



**Combustible gas**

Tough construction with excellent toxicity and impact resistance



**O<sub>2</sub>**

Electrochemical type with greatly improved basic characteristics



**CO & H<sub>2</sub>S**

2-in-1 dual construction for compact main unit



**CO**

Two-sensor configuration minimizes H<sub>2</sub> interference

# Extensive range of optional items

## The optimal combination can be selected to suit requirements.

Can be fitted in place of the tapered nozzle provided to allow readings to be checked even from a distance.



### For measurements inside tanks

#### Float-type gas collector

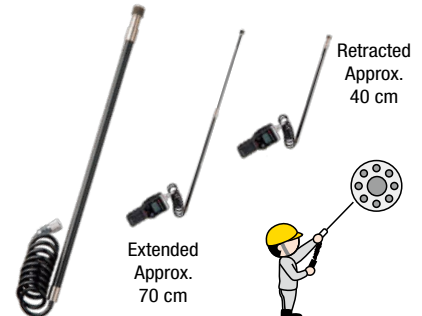
(Tube length: approx. 8 m)  
Part No.: 4384 0430 60



### For measurements in specific locations within reach

#### Gas sampling rod and Gas sampling tube

(Gas sampling tube length: approx. 75 cm)  
Part No.: Gas sampling rod: 0904 0275 00  
Gas sampling tube: 0914 0100 00



### For measurements in high locations

#### Two-stage sampling rod

\* A separate gas sampling tube (option) is also required to use this.  
Part No.: 4383 0730 80



#### AC adapter

Part No.: 2594 1342 30



#### Tapered nozzle

Part No.: 4126 4948 20



#### Hand strap

Part No.: 0888 0605 90



#### Belt clip

\* With two attachment screws  
Part No.: 4711 9954 30



#### Data logger management program

\* A separate USB cable (option) is also required to use this.  
Part No.: 9812 0020 10



#### USB cable (Type-A - Type-C, 1 m)

\* Required when using a data logger management program (option).  
Part No.: 2440 2728 90

#### Protective film (set of 5)

Part No.: 4777 9296 50



## Specifications

|  |  |
|--|--|
| Model  | GX-Force   |
| Sampling method  | Suction type   |
| Suction flow rate  | Minimum 0.35 L/min (open flow rate)  |
| Gas alarm pattern  | Lamp flashing, continuous modulating buzzer sounding, gas concentration display flashing, vibration  |
| Gas alarm reset operation                                    | Self-latching  |
| Fault alarm/self-diagnosis                                   | System, clock, or sensor abnormality; battery voltage drop; calibration failure; pump abnormality; low flow rate   |
| Fault alarm pattern  | Lamp flashing, intermittent buzzer sounding, detail display  |
| Fault alarm reset operation                                  | Self-latching  |
| Display  | LCD digital (7-segment + 14-segment + icons) with backlight  |
| Individual operations  | Operational status, clock, battery level, peak reading, pump status, calibration notification  |
| Sound pressure   | Approx. 90 dB (30 cm)  |
| Data logger function   | Maximum storage capacity: 3,600 items Interval: 5 minutes (adjustable)   |
| Communication specifications                                 | USB2.0 (for data logger) * Connector: Type-C   |
| Power source   | Rechargeable lithium ion battery   |
| Continuous operating time <sup>*1</sup>                      | Approx. 30 hours (25 °C, fully charged, no alarm, no lighting)   |
| Operating ambient temperature/humidity range <sup>*2,3</sup> | -40 °C - +60 °C (no sudden changes), 0 - 95 %RH (no condensation)  |
| Explosion-proof construction                                 | Intrinsically safe explosion-proof construction, flame-proof enclosure<br>IECEX (Ex da ia IIC T4 Ga/Ex ia IIC T4 Ga)<br>ATEX (II1G Ex da ia IIC T4 Ga/II1G Ex ia IIC T4 Ga)<br>Japan EX (Ex da ia IIC T4 Ga/Ex ia IIC T4 Ga) (pending) |
| Certifications   | CE/UKCA marking, JIS T 8201, JIS T 8205, JIS T 8206  |
| Protection level   | IP67 equivalent  |
| External dimensions/weight                                   | Approx. 64 mm (W) × 173 mm (H) × 47 mm (D) (excluding protrusions) / Approx. 280 g   |

\*1 Varies depending on sensor type installed. Please contact Riken Keiki for more information.

\*2 In temporary ambient conditions for approximately 15 minutes. The operating temperature and humidity ranges for continuous ambient conditions are as follows:  
Temperature: -20 °C - +50 °C (no sudden changes) / Humidity: 10 - 90 %RH (no condensation)

\*3 The range of operating temperatures in which explosion-proof performance is maintained is as follows: Temperature: -20 °C - +60 °C (no sudden changes)

## Detection target gas

| Detection target gas                   | Combustible gas (CH <sub>4</sub> or HC)  | Oxygen (O <sub>2</sub> )   | Carbon monoxide (CO)  | Hydrogen sulfide (H <sub>2</sub> S)   |
|--|--|--|---|---|
| Detection principle                    | New ceramic type (catalytic type)  | Electrochemical type   |   |   |
| Display range                          | 0 - 100 %LEL   | 0.0 - 40.0 vol%  | 0 - 2,000 ppm   | 0.0 - 200.0 ppm   |
| Detection range                        | 0 - 100 %LEL   | 0.0 - 25.0 vol%  | 0 - 500 ppm   | 0.0 - 100.0 ppm   |
| Resolution                             | 1 %LEL   | 0.1 vol%   | 1 ppm   | 0.1 ppm   |
| Alarm setpoints (User-defined setting) | 1st alarm: 10 %LEL<br>2nd alarm: 25 %LEL<br>3rd alarm: 50 %LEL<br>OVER alarm: 100 %LEL | L alarm: 19.5 vol%<br>LL alarm: 18.0 vol%<br>H alarm: 23.5 vol%<br>OVER alarm: 40.0 vol% | 1st alarm: 25 ppm<br>2nd alarm: 50 ppm<br>3rd alarm: 1,200 ppm<br>TWA alarm: 25 ppm<br>STEL alarm: 200 ppm<br>OVER alarm: 2,000 ppm | 1st alarm: 5.0 ppm<br>2nd alarm: 30.0 ppm<br>3rd alarm: 100.0 ppm<br>TWA alarm: 1.0 ppm<br>STEL alarm: 5.0 ppm<br>OVER alarm: 200.0 ppm |
| Response time (T90)                    | CH <sub>4</sub> : Within 30 seconds,<br>HC: Within 40 seconds                          | Within 20 seconds  | Within 30 seconds   | Within 30 seconds   |

## Type list

| Detection target gas/<br>Sensor |         | CH <sub>4</sub> or HC | O <sub>2</sub> | H <sub>2</sub> S & CO | H <sub>2</sub> S | CO       | Reduced H <sub>2</sub> interference CO |
|---------------------------------|---------|-----------------------|----------------|-----------------------|------------------|----------|--|
|                                 |         | NCR-6309              | ESR-X13P       | ESR-A1DP              | ESR-A13i         | ESR-A13P | ESR-A1CP                               |
| 4-component                     | Type A  | ○                     | ○              | ○                     |                  |          |  |
| 3-component                     | Type B  | ○                     | ○              |                       | ○                |          |  |
| 3-component                     | Type C  | ○                     | ○              |                       |                  | ○        |  |
| 3-component                     | Type CH | ○                     | ○              |                       |                  |          | ○                                      |
| 2-component                     | Type D  | ○                     | ○              |                       |                  |          |  |

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