Among the world’s smallest and lightest portable gas monitor

Model GW-3

Safety at your side

Now evolved into a wearable device that weighs just 45 g

1. Small, portable design for wear directly on your person
   - At a mere 45 g, this small, portable design lets you to wear the device on your wrist, arm, or anywhere else on your person—for example, on a helmet band.
   - In addition to buzzers and lamps, alarms are indicated by vibrations. Wear the device on your wrist or arm for immediate vibration alerts in the presence of danger, even in loud environments.

2. Incorporates durable new R sensor with advanced functions
   - The sensor’s superior durability and performance are backed by a three-year warranty (one year sensor warranty for GW-3(O2)).
   - Usable across a wide range of temperatures (-20 °C to +60 °C).
   - We offer a lineup of carbon monoxide sensors almost entirely resistant to hydrogen interference. They’re ideal for use in environments like steel facilities where hydrogen is present.
   - We’re the first Japanese manufacturer to offer a lineup of dual carbon monoxide and oxygen sensors, bringing two-channel detection to the market in a compact and portable form factor.

3. A safe design you can use anywhere
   - Protection level: Equivalent to IP66/68 (2 m, 1 h); designed to resist dust and water for confident use outdoors.
   - Intrinsically safe explosion-proof design (ATEX/IECEx/Japan Ex) to allow use in hazardous locations.

Model GW-3(OX)
Detection target gas: Oxygen (electrochemical type)

Model GW-3(O2)
Detection target gas: Oxygen (galvanic cell type)

Model GW-3(HS)
Detection target gas: Hydrogen sulfide

Model GW-3(CO)
Detection target gas: Carbon monoxide

Model GW-3(C-)
Detection target gas: Carbon monoxide (reduced hydrogen interference)

Model GW-3(CX)
Detection target gas: Carbon monoxide and oxygen

Description of the display

- Name of gas
- Battery level
- Concentration display
- Operating status
- Time/data display
- Units
- The GW-3(CX) can simultaneously display concentrations for both carbon monoxide and oxygen.

RIKEN KEIKI CO., LTD.
**Common specifications**

<table>
<thead>
<tr>
<th>Sampling method</th>
<th>Diffusion type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm type</td>
<td>Gas alarms: Three-step alarms, STEL alarm, TWA alarm, OVER alarm Fault alarms: Sensor connection/disconnection, low battery level, calibration failure, clock abnormality, system abnormality, M OVER</td>
</tr>
<tr>
<td>Alarm type</td>
<td>Self-latching or auto-reset(*1)</td>
</tr>
<tr>
<td>Alarm pattern</td>
<td>Flashing lamp, intermittent audible buzzer, flashing gas concentration readout, vibration</td>
</tr>
<tr>
<td>Buzzer volume</td>
<td>80 dB or louder (at 30 cm)</td>
</tr>
<tr>
<td>Power source</td>
<td>CR2450 coin-type lithium ion battery</td>
</tr>
<tr>
<td>Explosion-proof construction</td>
<td>Intrinsically safe explosion-proof construction (Ex ia IIC T4 Ga)</td>
</tr>
<tr>
<td>Certifications</td>
<td>ATEX, IECEx, Japan Ex</td>
</tr>
<tr>
<td>Protection level</td>
<td>Equivalent to IP66/68 (2 m, 1 h)</td>
</tr>
<tr>
<td>External dimensions/weight</td>
<td>Approx. 63 mm (W) × 42 mm (H) × 22 mm (D) (excluding projections)/approx. 45 g</td>
</tr>
<tr>
<td>Functions</td>
<td>Data logger, vibration, STEL alarm, TWA alarm, quick calibration, peak value display, temperature display</td>
</tr>
</tbody>
</table>

**Individual model specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>GW-3(O2)</th>
<th>GW-3 (OX)</th>
<th>GW-3 (HS)</th>
<th>GW-3 (CO)</th>
<th>GW-3 (C-)</th>
<th>GW-3 (CX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection target gas</td>
<td>Oxygen</td>
<td>Oxygen</td>
<td>Hydrogen sulfide</td>
<td>Carbon monoxide</td>
<td>Carbon monoxide (Reduced hydrogen interference)</td>
<td>Carbon monoxide</td>
</tr>
<tr>
<td>Detection principle</td>
<td>Galvanic cell type</td>
<td>Electrochemical type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detection range (Service range)</td>
<td>0.0 to 25.0 % (25.0 to 40.0 %)</td>
<td>0.0 to 25.0 % (25.0 to 40.0 %)</td>
<td>0.0 to 100.0 ppm (100.0 to 200.0 ppm)</td>
<td>0 to 500 ppm (500 to 2,000 ppm)</td>
<td>0 to 500 ppm (500 to 2,000 ppm)</td>
<td>0.0 to 25.0 % (25.0 to 40.0 %)</td>
</tr>
<tr>
<td>1 digit</td>
<td>0.1 %</td>
<td>0.1 %</td>
<td>0.1 ppm (0 to 30.0 ppm) 1.0 ppm (30.0 to 200.0 ppm)</td>
<td>1 ppm (0 to 300 ppm) 10 ppm (300 to 3,000 ppm)</td>
<td>1 ppm (0 to 300 ppm) 10 ppm (300 to 3,000 ppm)</td>
<td>1.0 ppm (30.0 to 200.0 ppm)</td>
</tr>
<tr>
<td>Alarm setpoints</td>
<td>L 18.0 % LL 18.0 % H 25.0 %</td>
<td>L 18.0 % LL 18.0 % H 25.0 %</td>
<td>1st 5.0 pm 2nd 30.0 pm 3rd 100.0 pm</td>
<td>1st 25 ppm 2nd 50 ppm 3rd 1,200 ppm</td>
<td>1st 25 ppm 2nd 50 ppm 3rd 1,200 ppm</td>
<td>1st 25 ppm 2nd 50 ppm 3rd 1,200 ppm</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-20 °C to +50 °C (no sudden changes)</td>
<td>-20 °C to +50 °C (no sudden changes)</td>
<td>-20 °C to +50 °C (no sudden changes)</td>
<td>-20 °C to +50 °C (no sudden changes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating humidity range</td>
<td>10 to 90 % RH (no condensation)</td>
<td>0 to 95 % RH (no condensation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certifications</td>
<td>JIS T 8201: 2010</td>
<td>—</td>
<td>JIS T 8205: 2018</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Continuous operating time</td>
<td>Approx. 4,000 hours</td>
<td>Approx. 2,000 hours</td>
<td>Approx. 4,000 hours</td>
<td>Approx. 4,000 hours</td>
<td>Approx. 2,500 hours</td>
<td>Approx. 2,000 hours</td>
</tr>
</tbody>
</table>

*1. Standard setting: Self-latching
2.* Temporary ambient conditions for approx. 15 minutes. The continuous operating ambient temperature ranges are as follows: Temperature -20 °C to +50 °C (no sudden changes)
3.* Temporary ambient conditions for approx. 15 minutes. The continuous operating ambient humidity ranges are as follows: Humidity: 10 to 90 % RH (no condensation)

**Accessories**

- CR2450 coin type lithium ion battery (+1)
- Wristwatch belt (+1)
- Alligator clip (+1)

**Optional items (sold separately)**

- Wristwatch belt
- Belt clip
- Alligator clip
- Heat-resistant case
- Dust filter
- Other filters
- Calibration cap
- Leather case
- Arm band
- Data logger management program

**Names of parts**

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