



COSMOS

Personal Gas Monitor XX-2200 Series

- Thin, lightweight design
- Long operating life
- Various alarm functions
- Equipped with a peak value memory function



XOC-2200

Oxygen & Carbon Monoxide



Oxygen



Toxic gas



Galvanic cell sensor



Electrochemical cell sensor



XOS-2200

Oxygen & Hydrogen Sulfide



Oxygen



Toxic gas



Galvanic cell sensor



Electrochemical cell sensor



XC-2200

Carbon Monoxide



Toxic gas



Electrochemical cell sensor



XS-2200

Hydrogen Sulfide



Toxic gas



Electrochemical cell sensor



XO-2200

Oxygen



Oxygen



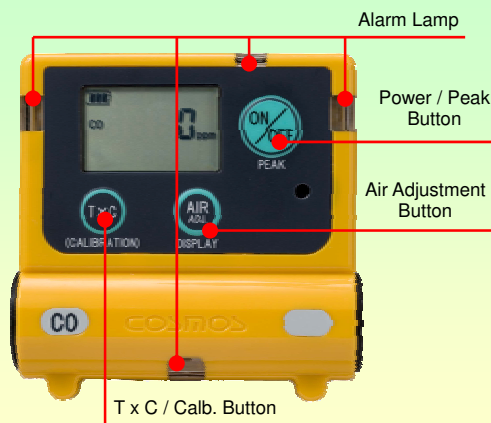
Galvanic cell sensor



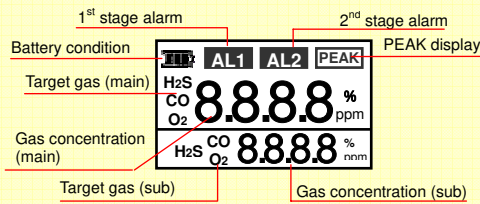
Can be used continuously for 5000 hours.

The monitor can be used for 5000 hours with one AAA alkaline battery. Also, the battery can be changed by the user.

Oxygen & Carbon Monoxide Monitor XOC-2200

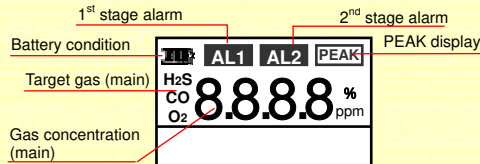


XOC-2200/XOS-2200 LCD Display Details



The main-display and sub-display can be switched with one button.

XC-2200/XS-2200/XO-2200 LCD Display Details



Standard Accessories

- Suspender Clip



Optional Accessories

- Soft Case
- Helmet Clip



Specifications

| Model | XO-2200 | XC-2200 | XS-2200 | XOC-2200 | | XOS-2200 | |
|--|--|-------------------------|-------------------------|--|-------------------------|----------------------|-------------------------|
| Gas Detected | Oxygen | Carbon Monoxide | Hydrogen Sulfide | Oxygen | Carbon Monoxide | Oxygen | Hydrogen Sulfide |
| Detected Principle | Galvanic cell | Electrochemical cell | Electrochemical cell | Galvanic cell | Electrochemical cell | Galvanic cell | Electrochemical cell |
| Sampling Method | Diffusion | Diffusion | Diffusion | Diffusion | | Diffusion | |
| Detection Range (Service Range) | 0-250vol% (25-50vol%) | 0-300ppm (300-2,000ppm) | 0-30.0ppm (30.1-100ppm) | 0-25vol% (25-50vol%) | 0-300ppm (350-2,000ppm) | 0-25vol% (25-50vol%) | 0-30.0ppm (30.1-100ppm) |
| Indication Accuracy (Under identical conditions) | Within ± 0.5vol% | Within ± 30ppm | Within ± 1.5ppm | Within ± 0.5vol% | Within ± 30ppm | Within ± 0.5vol% | Within ± 1.5ppm |
| Alarm Set Value | 1 st stage 19.5vol% 2 nd stage 18.0vol% | 50ppm 150ppm | 10.0ppm 15.0ppm | 19.5vol% 18.0vol% | 50ppm 150ppm | 19.5vol% 18.0vol% | 10.0ppm 15.0ppm |
| Response Time (90% response at 20± 2°C) | 20s or less | 30s or less | 30s or less | 20s or less | 30s or less | 20s or less | 30s or less |
| Alarm Indication | Buzzer sounds, flashing red light, vibrator | | | Buzzer sounds, flashing red light, vibrator | | | |
| Functions | Remaining battery level, peak hold, memory of peak value, alarm functions except gas alarm (sensor malfunction, remaining battery level, adjustment malfunction) | | | Remaining battery level, peak hold, memory of peak value, alarm functions except gas alarm (sensor malfunction, remaining battery level, adjustment malfunction) | | | |
| Explosion-proof Structure | Exibd II BT3 | Exibd II BT3 | Exibd II BT3 | Exibd II BT3 | | Exibd II BT3 | |
| Operation Temperature and Humidity | -10 to 40°C, 30-90%RH (non condensing) | | | -10 to 40°C, 30-90%RH (non condensing) | | | |
| Power Source | 1 x AAA Alkaline dry cell (LR03) | | | 1 x AAA Alkaline dry cell (LR03) | | | |
| Battery Life *1 | 5,000+ hours (at 20°C without alarm) | | | 5,000+ hours (at 20°C without alarm) | | | |
| Dimensions | W65 x D22 x H64mm (excluding protrusions) | | | W65 x D22 x H64mm (excluding protrusions) | | | |
| Weight | Approx. 75g (including battery) | | | Approx. 75g (including battery) | | | |
| Standard Accessories | 1 x AAA Alkaline dry cell, safety pin adaptor (with fixing screw) | | | 1 x AAA Alkaline dry cell, safety pin adaptor (with fixing screw) | | | |
| Optional Accessories | Soft case, Belt clip, Helmet clip | | | Soft case, Belt clip, Helmet clip | | | |

*1 Battery life may vary with ambient conditions, conditions of use, storage period, battery manufactures, etc.

| Oxygen concentration | Effect on human body |
|----------------------|--|
| 21% | Normal air density |
| 18% | Safety limit |
| 16% | Increase in respiration and pulse rate, headache, feeling sick, and nausea |
| 12% | Dizziness, nausea, loss of muscle strength, and falling |
| 10% | Pallor, unconsciousness, and vomiting (potential choking from vomit) |
| 8% | Coma, Will cause death in 8 min. |
| 6% | Asphyxia convulsions, death |

| CO concentration | Effect on human body |
|------------------|--|
| 0.01% | No conspicuous behavior after breathing for several hours |
| 0.02% | Slight headache in 1.5 hours |
| 0.04% - 0.05% | Headache, nausea, and ear ringing in 1 hour |
| 0.06% - 0.10% | Loss of consciousness in 1.5 hours |
| 0.15% - 0.20% | Headache, severe nausea, and loss of consciousness in 0.5-1 hour |
| over 0.40% | Life threatening even after short exposure |

| Hydrogen Sulfide (ppm) | Effect on human body |
|------------------------|---|
| 0.03 | Lower perception limit of smell |
| 5 | An unpleasant odor is generated |
| 50 - 100 | Irritating to the respiratory tract, conjunctivitis |
| 100 - 200 | Paralysis of olfactory perception |
| 200 - 300 | Sub-acute poisoning in 1 hour |
| 600 | Fetal poisoning in 1 hour |
| 1,000 - 2,000 | Instant death |



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The information contained is subject to change.