



Medical and Biotech
Developments, Inc.

Pocket Gas Detectors



Detectors for CO, H2S, Hydrogen, and Ozone

- **Low cost with long battery life (replaceable)**
- **EC sensor for accurate, reliable measurements**
- **Loud alarm, vibrator, LED, backlight digital display**
- **Weighs less than 1 ounce! Just clip it on!**
- **Dosimetry and data / event logging**
- **Also available for OEM**



POCKET CO

Pocket CO Model 300 has been designed as a simple and effective tool to determine, measure, or record Carbon Monoxide (CO) levels in any environment. The instrument has been programmed based on guidelines for indoor and outdoor CO exposure from several organizations, including OSHA and ACGIH. Alarms are factory set at 50PPM, the ACGIH maximum recommended short-term exposure of 125PPM, and a death hazard of 400 PPM CO.

Low levels of CO, typically less than 10 PPM, are not considered especially hazardous, but they do indicate a source of CO. Sustained levels above 25 PPM for 8 hours, and short-term exposure to more than 125 PPM CO, should be avoided. Seek clean air, ventilation, or any other means to eliminate exposure.

Pocket CO Model 300 is a stand-alone unit, and because of its small size can be carried on a key ring, clipped to a worker's shirt pocket, or attached to the dashboard of a vehicle or piece of equipment. Pocket CO is designed specifically to be affordable and easy to use by health professionals and concerned homeowners. The device can be used in CO detection applications such as OSHA enforcement, fire service exposure, parking garages, warehouses, municipal buildings, hotel rooms, home furnace inspection and barbecue areas; and for mobile measurements on boats, cars, trucks, trains, airplanes, and anywhere else Carbon Monoxide exposure is possible.

Size: 2.66 x 1.40 x 0.61 inches (67.6 x 35.6mm x 15.5 mm)

Weight: < 1 ounce (28 grams)

Range: 5-500 PPM CO

Response time: < 90 seconds to 90%

Operating temperature: 32-105 F, 0-40 C displayed; readings automatically compensated.

Pressure effects: Reading decreases with decreasing pressure, down to 70% at 10,000 ft

Humidity limits: 15-85% RH, non-condensing

Alarms: (82 dB buzzer @ 24 in,

LED, Backlight, Vibrator)

Optional first alarm at or above 50 PPM.

Second alarm at or above 125 PPM.

Third alarm at or above 400 PPM.

Hourly warning when CO above the 8-Hour 25 PPM ACGIH TWA.

Temperature above 50°C / 122°F: "HOT" displayed

Temperature below 0°C / 32°F: "COLD" displayed

Low battery warning: "BATT" displayed

Sampling method: Gaseous diffusion.

Interferences: None significant, except hydrogen.

Periods of Operation: "12-Hour" and "Always On"

Display: Digital LCD with backlight in increments of 1 ppm.

User interface: Single button operation.

Dosimetry

(12-Hour Detection period only):

Calculates and records: Maximum exposure (ppm), time of max.

exposure (minutes since turned on), total exposure in ppm-hours,

8-hour time weighted average (TWA).

Tests:

Self-Test on startup checks circuitry, alarms, battery, and operating temperature. Does not check sensor.

Calibration: Recommended at least 1x per year, or whenever accuracy of reading is critical.

Sensor: Transducer Technology T-Series electrochemical.

Battery information:

Battery check on startup and during operation. User replaceable

CR2450 coin battery.

Warranty: Two years (excluding battery)



POCKET H₂S

Pocket H₂S Model 300 has been designed as a simple and effective tool to determine, measure, or record Hydrogen Sulfide (H₂S) levels. The instrument has been programmed based on guidelines for indoor and outdoor H₂S exposure from several organizations, including OSHA and ACGIH. Ceiling alarms are factory set at 10 PPM and 20 PPM. There is also an 8-HR TWA warning that sounds every hour if you're on track to exceed the ACGIH 10PPM 8-HR TWA limit.

Pocket H₂S Model 300 is a stand-alone unit, and because of its small size can be carried on a key ring, clipped to a worker's shirt pocket, or attached to the dashboard of a vehicle or piece of equipment. Pocket H₂S is designed specifically to be affordable and easy to use by health professionals and concerned homeowners. The device can be used in H₂S detection applications such as OSHA enforcement, hospitals, oil and gas industries, and anywhere else Hydrogen Sulfide exposure is possible.

Size: 2.66 x 1.40 x 0.61 inches (67.6 x 35.6mm x 15.5 mm)

Weight: < 1 ounce (28 grams)

Range: 0.0-50.0 PPM H₂S

Response time: < 90 seconds to 90%

Operating temperature: 32-105 F, 0-40 C displayed.

Pressure effects: Reading decreases with decreasing pressure, down to 70% at 10,000 ft

Humidity limits: 15-85% RH, non-condensing

Alarms:

(82 dB buzzer @ 24 in,

LED, Backlight, Vibrator)

First alarm at or above 10.0 PPM.

Second alarm at or above 20.0 PPM.

Hourly warning when H₂S above the 8-Hour 10.0 PPM ACGIH TWA.

Temperature above 50°C / 122°F: "HOT" displayed

Temperature below 0°C / 32°F: "COLD" displayed

Low battery warning: "BATT" displayed and buzzer sounds briefly.

Sampling method: Gaseous diffusion.

Interferences: None significant, except hydrogen.

Periods of Operation: "12-Hour" and "Always On"

Display: Digital LCD with backlight in increments of 0.1 ppm.

User interface: Single button operation.

Dosimetry

(12-Hour Detection period only):

Calculates and records: Maximum exposure (ppm), time of max exposure

(minutes since turned on), total exposure in ppm-hours,

8-hour time weighted average (TWA).

Data & Event Logging

PRO model only. 100 hours of measurements logged at 1x per minute.

Logging rate configurable up to 12x per minute. Event logging also

available during operation. Logged data downloadable to PC via

SmartPocket USB device, and Windows software.

Tests:

Self-Test on startup checks circuitry, alarms, battery, and operating temperature. Does not check sensor.

Calibration: Recommended at least 1x per year, or whenever accuracy of reading is critical.

Sensor: Transducer Technology T-Series electrochemical.

Battery information:

Battery check on startup and during operation. User replaceable

CR2450 coin battery.

Warranty: One year (excluding battery)



POCKET O₃

Pocket Ozone is a general purpose ozone detector/dosimeter designed for indoor use. Pocket Ozone's small size and convenient features make it is a useful and easy-to-operate safety device for the detection of harmful levels of ozone in areas where people work or may be otherwise exposed. Pocket Ozone is not designed for high accuracy measurements, particularly at low-levels (less than 0.3ppm). Pocket Ozone's response time may be slower if the instrument hasn't been exposed to ozone for some time. Routine conditioning with ozone from an ozone generator will improve Pocket Ozone's responsiveness, particularly at low-levels, and is recommended.

Pocket Ozone is small and light enough to be transported in your pocket, but Pocket Ozone should not be operated while in your pocket. For proper operation, the sensor exposure hole on the backside of Pocket Ozone must never be covered, and must always be well exposed to the environment being monitored. Do not cover the sensor exposure hole with your hand, or lay the sensor exposure hole against your clothing or any other surface. If the sensor exposure hole is covered, Pocket Ozone will not properly detect ozone.

Pocket Ozone's "Self-Test" function checks most of its functionality, but does not test the ozone sensor, which can only be tested with actual exposure to ozone. Monthly testing by exposing to a known source of ozone, such as the Eco Sensors OG-3 ozone generator, is highly recommended.

Size: 2.66 x 1.40 x 0.61 inches (67.6 x 35.6mm x 15.5 mm)

Weight: < 1 ounce (28 grams)

Range: 0.00 - 2.00 ppm

Operating temp: 45-95 F, 7-35 C

Humidity limits: 15-85% RH, non-condensing

Accuracy: Pocket Ozone is most accurate when used in similar conditions to calibration (room temperature, 50% RH). Pocket Ozone is not designed for high accuracy measurement, particularly at low-levels (less than 0.3 ppm). Pocket Ozone's response time may be slower if the instrument has not been exposed to ozone for some time. Routine conditioning with ozone from an ozone generator will improve responsiveness, particularly at low-levels, and is recommended.

Alarms: Buzzer (82 dB @ 24"), LED,

Backlight, Vibrator

Alarms once per minute when reading \geq 0.30 ppm

Alarms every 30 seconds when reading \geq 0.60 ppm

Temperature above 35°C / 95°F: "HOT" displayed

Temperature below 7°C / 45°F: "COLD" displayed

Low battery warning: "BATT" displayed, buzzer sounds briefly.

Sampling method: Gaseous diffusion.

Environmental Use: Indoor use only, in areas free of interfering gases.

Interferences*: Chlorine, Nitrogen Dioxide (NO_x), Hydrogen, Carbon Monoxide. Rapid humidity changes in vicinity of sensor exposure hole.

Period of Operation: "9-Hour" (single push)

Display: Digital LCD in increments of 0.01 ppm.

Backlight Available on demand.

User interface: Single button operation.

Dosimetry (PLUS and PRO models only)

Calculates and records: "MAX" maximum exposure (ppm), "TIME" time of max. exposure (minutes since turned on), "TE" total exposure in ppm-hours, 8-hour "TWA" time weighted average.

Data & Event Logging: PRO model only. 100 hours of measurements logged at 1x per minute. Logging rate configurable up to 12x per minute. Event logging also available during operation.

Logged data downloadable to PC via PocketPort USB device, and Windows software.

Tests: Self-Test on startup checks circuitry, alarms, battery, and operating temperature.

Does not check if sensor is operating normally.

Calibration: Recommended at least 1x per year, or whenever accuracy of reading is critical.

Conditioning: Conditioning with ozone recommended if instrument has not seen ozone in some time, especially if rapid response time for low-levels is critical.

Sensor: Transducer Technology T-Series electrochemical (3ET1PO3)

Battery information: Battery check on startup and during operation. User replaceable CR2450 coin battery.

Warranty: Instrument, including sensor: One year.