



## Hydrogen Sulfide

### User's Manual

**Thank You** for purchasing Sensorcon's H<sub>2</sub>S Inspector Industrial. This Manual summarizes the device operation. Please feel free to contact us if you have any questions. This product can be used as a personal safety device. It is the User's responsibility to respond properly to the alarm.

#### Application:

Hydrogen Sulfide is a toxic gas that is produced from Sour Gas, bacteria, waste breakdown processes, and various other sources. The H<sub>2</sub>S Inspector measures Hydrogen Sulfide levels.

#### Limited Warranty:

The Inspector has a 1 year warranty on all parts. Treat it nice, and keep it calibrated, and it should last much longer. If you don't calibrate the device, there's a good chance it won't be accurate. If no calibration is performed, EOL (end of life) will be displayed after 2 years of use. Successful calibration postpones EOL for 180 days.

#### Normal Operating Conditions:

Temperature: -20°C to +50°C (-4°F to +122°F)  
Humidity: 20-90% R.H (0-99% intermittent)

#### Practical Considerations

Short term measurements (i.e. <1hr) in any humidity (0-99% R.H.) are OK if condensation doesn't block the sensor inlet. Longer term exposure to humidity extremes outside normal range can damage the sensor. Damage occurs faster at higher temperatures. The display and sensor won't work properly at lower temperatures. Higher temperatures can damage the device.

#### Contact Information:

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#### Hydrogen Sulfide (H<sub>2</sub>S) Concentration Guidelines: (EPA & NIOSH published)

0.005ppm	Most people can smell
10 ppm	NIOSH 8-hr exposure limit
15 ppm	NIOSH 15min exposure limit
100 ppm	Loss of smell

#### How the H<sub>2</sub>S Inspector Works:

An electrochemical sensor (behind the sensor inlet drawn in the enclosed diagram), creates an electrical signal when H<sub>2</sub>S is sensed. Gas concentration is displayed in parts per million (PPM).

#### How to Operate the H<sub>2</sub>S Inspector:

2 buttons control the device.

	Hold for 1 second to turn on. If an alarm occurs and you want to mute the sound, press this button briefly. To turn off, hold for 3 seconds.
	To display only maximum concentration measured, press this button to hold the maximum value. Press again to exit "max mode" and display real-time concentrations.

#### How to Maintain the H<sub>2</sub>S Inspector:

Bump testing is recommended before each day's use in safety critical applications. Clean the device with a damp cloth if it gets dirty. If the battery ever dies, it can be replaced, use only Panasonic CR123A batteries.

#### Calibration:

Calibration with 15ppm H<sub>2</sub>S calibration gas is recommended (at least every 6 months), or contact Sensorcon about factory calibration services. To calibrate, follow these steps:

1. Hold both buttons for 10seconds to enter calibration mode. Press at any time to exit.
2. In a clean air environment (outside) press to begin the Zero calibration. Wait for countdown.
3. When zero is complete, use 1/4" OD, 1/8" ID Tygon tubing attached to the calibration gas cylinder and sensor inlet to flow calibration gas at 0.5L/min, then press to start cal step.
4. The Inspector will then automatically calibrate itself, and notify you if calibration is successful.

#### Lanyard Loop (with Clip on back):

Use this to attach to shirt or other location

#### Sensor Inlet:

Where the gas is measured, (keep it clean & do not puncture the membrane)

#### LED Indicators (4 around LCD):

These red lights will flash when H<sub>2</sub>S concentration is high enough for an alarm

#### LCD Display:

Shows H<sub>2</sub>S concentration from 0-400 ppm (other details in lower figure)

#### Buzzer/Speaker:

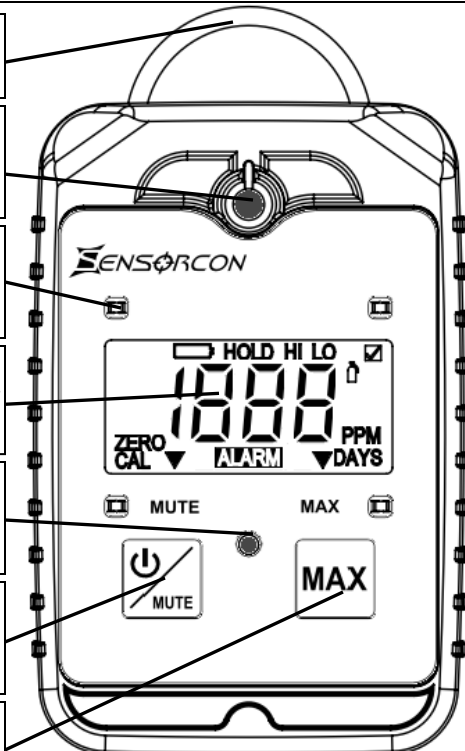
Makes beeping noises when an alarm is active, (do not puncture the membrane)

#### Power/MUTE Button:

Press & hold to turn power ON or OFF  
Press to mute the buzzer for up to 5 mins

#### MAX Button:

Press to make the LCD remain at the maximum



#### HOLD:

Displays with a countdown for powering off or entering calibration mode

#### HI:

Displays when the High 15ppm alarm is exceeded

#### LO:

Displays when the Low 10ppm alarm is exceeded

#### Battery Indicator:

Displays when the battery is low



#### Checkbox:

Indicates successful zero or cal step during calibration mode

#### ZERO:

Displays as 1<sup>st</sup> step during calibration, to establish 0 ppm status

#### Alarm:

Displays when 10ppm exceeded

#### Gas Calibration:

Displays when applying gas in CAL mode

#### CAL:

Indicates device is in calibration mode

#### PPM:

Displays when measuring H<sub>2</sub>S

#### Arrows:

Displays over MUTE to indicate alarm is muted  
Displays over MAX to indicate max ppm mode on

#### DAYS:

At startup, indicates # of days until calibration due