



Description

Detcon Model SG1 is a portable single-gas detector that uses electrochemical sensor technology to detect and monitor hydrogen sulfide, carbon monoxide, hydrogen, oxygen and sulfur dioxide. This lightweight, compact gas detector is controlled by an advanced microprocessor allowing for automatic zero-calibration and easy span calibration set up. During normal operation the large backlit LCD screen continuously displays battery life and real-time gas concentration in ppm or concentration of oxygen by percentage. The SG1 features advanced STEL (Short Term Exposure Limit) and TWA (Time Weighted Average) functions to prevent dangerous prolonged exposure to a specified gas. Maximum and minimum gas concentrations can also be programmed and monitored. The portable gas detector features an easy to use touch-button interface with simple-to-follow display symbols. Users are alerted to hazardous conditions via three alarm functions: vibration alert, LED alert lamp, and an audible buzzer with low and high settings of up to 90 dB. Weighing just 4.6 ounces, the SG1 is housed in a sturdy rubber enclosure that is shock resistant. It includes a heavy-duty stainless steel alligator belt clip and has a minimum battery run time of 4,500 hours.



Electrochemical Sensor

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Features

- ▶ Three alarm indicators: audible (90dB), vibration, visual (ultra bright LED)
- ▶ Shock resistant protective enclosure
- ▶ LCD display for direct gas/battery life readings
- ▶ Settings for high/low gas alarm levels, STEL and TWA
- ▶ Water-proof and dust-proof
- ▶ Compact and lightweight, 4.6 ounces
- ▶ Stainless-steel alligator belt clip and calibration test cap

Applications

- ▶ Oil & Gas Drilling Rigs
- ▶ Oil & Gas Production Sites
- ▶ Refining & Petrochemical
- ▶ Chemical plants
- ▶ Pulp & Paper Mills
- ▶ Water/wastewater treatment facilities
- ▶ Personal monitoring
- ▶ Utilities

LCD Display Symbols

	Safety Area Indicator		Time Average Level Alarm
	Test Failure		Fresh Air Calibration
	First Alarm		Single Gas Calibration
	Second Alarm		Show Battery
	Max or Min Peak Value		

System Specifications

Sensor Type

Electrochemical

Gases Monitored

Hydrogen Sulfide

Ranges: 0-100 ppm, 0-200 ppm

Lower Alarm Level: 10 ppm

Upper Alarm Level: 20 ppm

Carbon Monoxide

Ranges: 0-500 ppm, 0-1000 ppm

Lower Alarm Level: 30 ppm

Upper Alarm Level: 60 ppm

Sulfur Dioxide

Ranges: 0-20 ppm, 0-100 ppm

Lower Alarm Level: 2 ppm

Upper Alarm Level: 4 ppm

Hydrogen

Ranges: 0-500 ppm, 0-1,000 ppm

Lower Alarm Level: 100 ppm

Upper Alarm Level: 500 ppm

Oxygen

Ranges: 0-30%

Lower Alarm Level: 19.5%

Upper Alarm Level: 23.5%

Accuracy/Repeatability

±5% of reading

Response/Clearing Time

T90<30 Seconds

Electrical Classification

CE Mark:

Explosion-proof: ATEX II 1 G Ex ia IIC T4

Weather-proof: IP67

Safety Approvals

ATEX

CE Mark

Alarms

Audible (up to 90dB), Vibration,

Visual (red LED alert lamp)

Warranty

2 years under normal use

Mechanical Specifications

Dimensions

3.58" x 2.12" x 1.24" (91mm x 54mm x 31.6mm)

Weight

0.264 lbs; 4.6 ounces; 120g

Electrical Specifications

Battery

3V CR2 lithium: Panasonic or Duracell

Runtime

4,500 hours (minimum)

Status Indicators

LCD display with gas concentration, battery life

Menu prompts for automatic calibration and setup options

Two buttons ("Arrow" and "OK") and graphical icons for easy use

Environmental Specifications

Operating Temperature Range

-20°C to +50°C

Operating Humidity Range

10% to 95% RH (non-condensing)

Order Guide

PN 96P-240000-100 Model SG-1-H2S, range 0-100ppm

PN 96P-240000-200 Model SG-1-H2S, range 0-200ppm

PN 96P-440000-500 Model SG-1-CO, range 0-500ppm

PN 96P-440000-01K Model SG-1-CO, range 0-1,000ppm

PN 96P-340000-030 Model SG-1-O2, range 0-30%

PN 96P-550000-020 Model SG-1-SO2, range 0-20ppm

PN 96P-550000-100 Model SG-1-SO2, range 0-100ppm

PN 96P-840000-500 Model SG-1-H2, range 0-500ppm

PN 96P-840000-01K Model SG-1-H2, range 0-1,000ppm

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Odessa



Shanghai



Dammam



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