SENSIT®HXG-2

Instruction Manual

For use with combustible gases

Gas Leak Detector

CLASSIFIED
UL
7WA6

Approved
UL913,
For Class 1,
Division 1,
Groups C & D
hazardous locations
when used with
alkaline batteries.

> ⚠ ***Warning:***
> *To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.*

Ask about these other fine instruments from SENSIT TECHNOLOGIES.

SENSIT®HXG-3 - Combustible Gas Indicator
SENSIT®RLD - Refrigerant Gas Detector
SENSIT® GOLD - Confined Space and Leak Detection Instrument
SENSIT® GOLD CGI - Up to 4 Gas Combustible Gas Indicator
TRAK-IT® III CGI - Combustible Gas Indicator
GAS•TRAC® - Combustible Gas Detector

See these instruments and others at our web site at: www.gasleaksensors.com

SENSIT TECHNOLOGIES
851 Transport Road
Valparaiso, IN 46383
Phone: 888 4SENSIT
(888 473-6748)
(219) 465-2700
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SENSIT Technologies

GAS DETECTION PRODUCTS

6/05 UL V1

CONTENTS

⚠ CAUTION
This safety symbol is used to indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

⚠ CAUTION

The **SENSIT® HXG-2** instrument is factory calibrated for methane in air. The alarm will indicate when the gas concentration at the sensor approaches the Alarm Set Point. The Alarm Set Point is adjustable by the user for any gas concentration within the range of 0% to 40% of the lower explosive limit for methane. The alarm response in the presence of any other gas will be different.

WARRANTY & REPAIR POLICY

Your **SENSIT® HXG-2** instrument is warranted to be free from defects in materials and workmanship for a period of two years after purchase (excluding sensor, calibration and batteries). If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at our option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect, or improper maintenance. A purchase receipt or other proof of date of original purchase will be required before warranty performance will be rendered. Instruments out of warranty will be repaired for a service charge. Return the unit postpaid and insured to:

SENSIT TECHNOLOGIES
851 Transport Drive
Valparaiso, IN 46383
Phone: (888) 473-6748
(219) 465-2700
Fax: (219) 465-2701

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

PARTS and ACCESSORIES

Standard Accessories (Included)

PHXG0260	Hard Carrying Case
I0108	Instruction Manual
P014091	Ear Phone (Earplug Type)
PHXG0350	Wrist Strap
Set of "C" Alkaline Batteries	

Optional Accessories and Parts

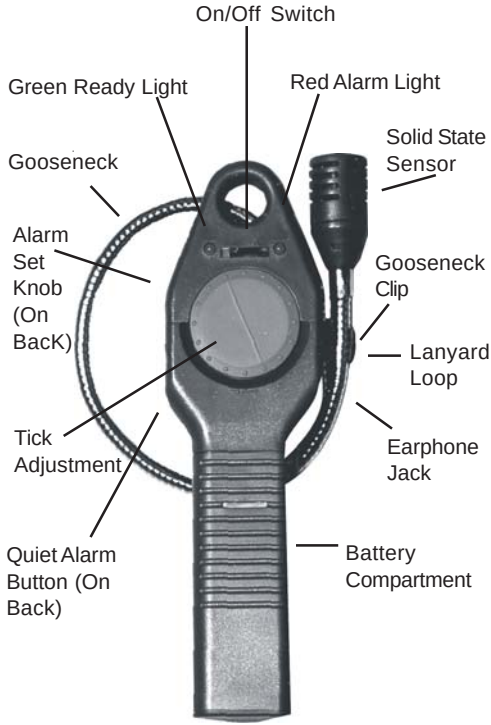
S0157-1	Calibration Kit (21 Liter Cylinder 0.5% Methane/Air, Regulator, Cal. Adapter, Screwdriver)
C0130-0.5	Replacement Cal. Cylinder (21 Liter 0.5% Methane/Air)
A0124-1	30" Non-Conductive Polycarbonate Barhole Probe
ASG0150	Extension Adapter
P017005	Sensor
PJN0116	Sensor Cap

SAFETY

SENSIT® HXG-2 is approved by Underwriters Laboratories to UL913, for Class 1, Division 1, Groups C & D hazardous locations when used with *Duracell*™ MN1400BK batteries or equivalent alkaline cells.

PRODUCT FEATURES

SENSIT® HXG-2



GENERAL DESCRIPTION

The **SENSIT® HXG-2** instrument is an advanced state-of-the-art leak detector capable of detecting many combustible, noncombustible and toxic gases.

The **SENSIT® HXG-2** solid-state sensor is sensitive to most combustible and/or toxic gases.
A partial list of these gases is:
Acetone, Alcohol, Ammonia, Steam, Carbon Monoxide*, Butane, Gasoline, Jet Fuel, Hydrogen Sulfide, Smoke, Industrial Solvents, Methane, Lacquer Thinners, Naphtha, Propane, Natural Gas.

* Can not be used to quantify the amount of CO present.

⚠ WARNING

This instrument should not be used as a carbon monoxide investigative tool.

SPECIFICATIONS

Power Supply: Three “C” size alkaline batteries.

Sensitivity: 10 ppm methane

Sensor: Solid State

Alarm: Visual and audio at approximately 10% of L.E.L. with an absolute maximum of 40% of L.E.L. for methane. Can be calibrated for other concentrations or gases.

Warm-up: Approximately 1 minute

Response Time: < 1 second (to 10% L.E.L.)

Alarm Time: < 6 seconds (to 10% L.E.L.)

Recovery Time: < 4 seconds (to 10% L.E.L.)

Duty Cycle: Intermittent

Battery Life: Approximately 30 hours.

Dimensions: 3.5” x 10” x 1.6”

Weight: 1.3 lbs.

Probe Length: 16”

Approvals: UL913 Intrinsically safe

OPERATION ENVIRONMENT

Temperature: 0-120° F

Humidity: 10%-90% R.H.

CALIBRATION ADJUSTMENT

To confirm the original factory calibrated alarm set point of 0.5% methane (10% LEL methane) use calibration kit part #C0157-1 for the following procedures.

1. Turn on the unit in a gas free environment for a 10 minute warm up.
2. Attach the regulator to the calibration gas cylinder (0.5% methane). Attach the calibration adapter to the regulator, gas flow starts automatically. Immediately insert the sensor into the calibration adapter.
3. If necessary, adjust the alarm set knob slowly until the red alarm light and alarm tone activate.
4. Disconnect the calibration adapter from the regulator to conserve gas.

⚠ **CAUTION: To verify the operation of this instrument it is necessary to apply combustible gas to the sensor head. The tick should increase and alarms may sound. To verify accuracy calibration must be performed.**

A calibration kit complete with regulator, calibration gas, calibration cup and easy to use instructions is available from your distributor or SENSIT TECHNOLOGIES.

OPERATION and USE

1. Turn the instrument on in a gas free environment. The instrument will go through a warm-up process.

2. During warm-up, it is normal but not required, that the ticking sound increases and the alarm indicates for a short time. While the instrument is warming up the tick rate will slowly decrease until it becomes steady. The alarm will also stop indicating as the instrument completes warm-up. The time required for this will vary depending on the duration of time since the instrument was last used.

⚠ **CAUTION: If the instrument is in an area where detectable gases are present, the alarm may not stop.**

3. Once warm-up is complete adjust the "Tick Adjust" control to establish a slow uniform tick rate. Only after the tick rate remains steady is the instrument ready for calibrated use. To identify the presence of gas vapors or leaks listen for any change in the tick rate. If the tick rate increases, the instrument has detected the presence or location of a leak. As the level of gas increases the tick rate will increase accordingly. If the alarm is indicating, the level of gas is near or above 0.5% gas or approximately at a minimum of 10% of LEL methane. This indicates a potentially hazardous atmosphere. When the instrument

alarms a flashing red LED will appear and an audible warbling tone will sound.

4. To pinpoint a leak source it may be necessary to readjust the tick rate. The "Nullable Tick Rate" feature of the **SENSIT® HXG-2** allows the rate to be slowed and reestablished even in high gas concentrations. By turning the tick adjust counterclockwise and reestablishing a slow tick rate as needed the **SENSIT® HXG-2** will continually identify higher levels of gas thereby locating the leak source. Remember, an increase in the tick rate means you are getting closer while a decrease means you are moving further away from the leak source.

5. To continue searching for a leak while the alarm is sounding, you may choose to depress the QUIET ALARM button on the back of the instrument. This will silence the audible portion of the alarm and allow the user to listen to the tick rate pattern. The visual red flashing LED will still be seen when the instrument is alarming even if the QUIET ALARM button is used. You will note that the tick rate is independent of the alarm which is calibrated to the appropriate gas concentration.

6. The earphone can be plugged into the unit if there is high background noise or the operator does not want to disturb other people.

The speaker is disabled by inserting the earphone.

7. If the green LED flashes or does not illuminate this is an indication that the batteries need replacement.

8. The unit will respond to some leak finding solutions (soap). Use your **SENSIT® HXG-2** instrument first.

9. If the sensor is overexposed to some gases, the unit may take an extended period of time to return to calibrated ready condition.

10. To increase battery life turn the unit to "OFF" when not in use.

BATTERY REPLACEMENT

If the **SENSIT® HXG-2** green ready LED fails to operate or if it blinks and the audio does not work, the batteries need replacement. Depress the latch using a coin and slide the battery compartment cover off. Replace the batteries with 3 fresh "C" alkaline batteries.

NOTE: When replacing batteries observe polarity markings in the battery compartment. A fresh set of alkaline batteries should operate the unit for approximately 30 hours.

SENSOR REPLACEMENT

Prior to replacing the sensor please contact Sensit Technologies at 219 465-2700.