

SGOES Frequently Asked Questions

What is the SGOES IR gas detector?

The SGOES IR gas detector is an infrared point gas detector that can detect only hydrocarbon gases.

What are the different conditions of the SGOES displayed by the Multi-Color LED?

GREEN and RED Blinking: Initialization approximately 60 seconds during start up.

Solid GREEN: Normal conditions below Alarm threshold level.

Solid RED: Alarm level threshold reached. Concentration is over the alarm threshold. Typically, unless otherwise changed by the customer, A1: 20%LEL and A2: 50%LEL.

How many alarm threshold levels are available with the SGOES?

There are two programmable alarm relay threshold levels and one fault relay.

What are the conditions of the three alarm Relays?

Alarm1: Normally Open, when the concentration threshold is reached, relay will be closed.

Alarm2: Normally Open, when the concentration threshold is reached, relay will be closed.

Fault Alarm: Normally Closed, when the detector faults, the Fault relay will be open.

Why is the LED indicator solid RED when the concentration is 0%LEL or below the alarm threshold?

If the gas detector was bump tested using calibration gas with a concentration higher than the high-high alarm (50%LEL) the SGOES highest alarm will remain latched. This is a FM requirement for combustible gases. The solid RED LED indicates that the SGOES reached a level beyond the highest alarm level, and must be acknowledged.

How to reset/clear the latched relay and the solid RED LED when gas concentration is zero or below alarm threshold levels, but the relay remained latched?

The solid RED LED and high high alarm relay may be cleared by tapping the SGOES with the magnet at the RESET/CAL location once.

What is bump testing the gas detector?

When a known concentration of calibration gas is directly applied to the gas detector to cause the detector to react and read the known concentration in normal conditions, simulating an actual gas leak event.

What is the difference between the weatherproof cap and calibration cup?

The weatherproof cap is a protective cap that covers the gas detection chamber from water and particle intrusion. The calibration cup is used only during calibration to connect the tubing from the calibration bottle and also to minimize the amount of gas used per calibration by allowing the gas to fill the gas detection chamber faster without releasing additional gas to the surroundings.

Can the SGOES be changed to detect a different gas than what it was calibrated for at the factory?

If the SGOES has been calibrated to Methane at the factory, then it cannot be changed to any other gas.

If the SGOES has been calibrated to Propane at the factory, or to a different hydrocarbon, then the SGOES may be re-calibrated to a different gas using a correction factor and Propane calibration gas.

The SGOES is a combustible gas detector, although it has been calibrated to a specific gas, the SGOES still detects other hydrocarbon gases.

What calibration methods are available for the SGOES IR gas detector?

Currently there are 3 different methods:

Using ESP Commander Software via RS485 communication and using a laptop along with the calibration gases.

Using the magnetic wand using the LED color sequence to apply zero gas and 50%LEL of the calibrated gas.

Using a HART Communicator, the ESP Safety's designated SGOES HART cable and the calibration gases.

What are the standard signal outputs of the SGOES?

Standard signal outputs include 4-20mA analog, RS485, Relays, and HART

Is the SGOES seeking or sourcing current?

All of ESP Safety gas detectors including the SGOES are sourcing devices.

Is the SGOES a 2 wire-loop-powered device? Or 3 or 4 wires?

The SGOES can be wired in 3 or 4 wire systems. (2 wires for 24VDC Power supply and either 1 or 2 wires for 4-20mA analog communication)