



NATURAL GAS, PROPANE, GASOLINE, ALCOHOL GAS DETECTOR

FOR USE WITH 12VDC CONTROL PANELS OR 12VDC VEHICLES

GD-1S



BOATS • BUSES • MOTOR HOMES

The GD-1S is an all electronic detector of the types of gases that are hazardous in boats, motor homes, and alternately fueled vehicles. The GD-1S operates on 12VDC and is housed in a small plastic case that can mount to a flat surface or over a single gang electric box.

The GD-1S is designed to be inherently explosion proof, with its dry contact relay a sealed, reed type. This gas detector is designed to be versatile, and provide the ON/OFF switch to many different types of gas detection systems.

The GD-1S operates on 12 VDC (10 to 15) and uses 0.075 Amps in standby and 0.085 Amps in alarm. The gas detector is intended to be operated continuously, unless the installation is on a battery system that is used intermittently. In such cases, to avoid running down the battery, the GD-1S should be turned on as needed through the ignition switch or other switch.

The GD-1S has an internal time delay that prevents alarms during the first one minute after power is turned on. During the delay period, in which the green light flashes on and off, no alarms can occur. At the end of the delay, the unit becomes fully operational, as shown by a steady green light.

If the GD-1S detects gas, the light will change color to orange, and the relay will close. Once the air clears of gas, the detector will automatically reset to the standby condition: the light green and the relay open. The GD-1S gas sensing element is supervised. A failure will result in the relay closing and the light turning off.

Four color coded pigtail type leads are provided for connections to the detector. See the diagrams on the other side of this sheet.

The standard calibration of the GD-1S is to 20 % of LEL (Lower Explosive Limit) of Propane. See the list to the right for response to other gases. LEL is the lowest level that a mixture of gas and air is explosive.

The GD-1S does NOT detect carbon monoxide.

- SMALL, LIGHTWEIGHT, COMPACT
- EASY INSTALLATION & OPERATION
- DETECTS MANY GASES
- EXPLOSION PROOF DESIGN
- SPECIAL CALIBRATIONS AVAILABLE
- SOLID STATE SENSOR LASTS 7 TO 10 YEARS OF CONTINUOUS USE.
- VERSATILE: MANY POSSIBLE SYSTEM CONFIGURATIONS
- FAIL SAFE, SUPERVISED SENSOR

SPECIFICATIONS:

SIZE: 3 ½ X 2 ½ X 1½ inches

WEIGHT: Less than one pound

COLOR: White

VOLTAGE: 10 to 15 VDC

CURRENT: 0.075 to 0.085 Amps

SENSOR MAINTENANCE: Not required

RELAY RATING: 0.5 Amp, 200 Volt, 10 VA

OPERATING TEMP.: 0 to 150 degrees F.

SENSITIVITY: (set on propane)

PROPANE, BUTANE, LP: 20% LEL

NATURAL (METHANE): 15 to 25 % LEL

GASOLINE FUMES: 7 to 20 % LEL

METHANOL: 3 to 10 % LEL

ETHANOL: 5 to 15 % LEL

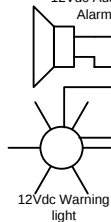
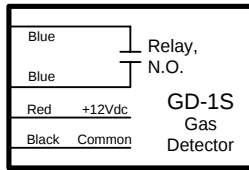
HYDROGEN: 5 to 15 % LEL

GD-1S APPLICATIONS

TYPICAL CONNECTION TO PROVIDE ALARM TO GAS LEAKS IN VEHICLES, WHETHER THE FUEL IS GASOLINE, NATURAL GAS, OR PROPANE.

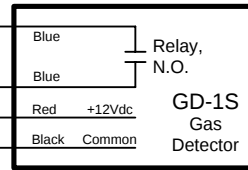
RELAY: SPST,
N.O., 0.5 Amp,
200 V, 10VA,
dry contact

POWER: 12
Vdc, 0.075 to
0.085 Amps



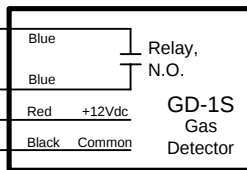
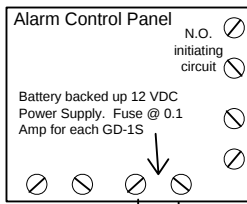
Various alarm devices can be used. The GD-1S provides the switch closure.

Total of alarm device loads must not exceed 0.5 amps.

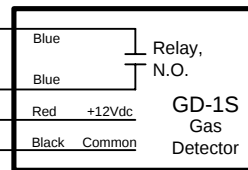


TYPICAL CONNECTION OF A 12VDC GAS DETECTION SYSTEM FOR HOME, BUSINESS, BOAT, ETC.

Alarm Control Panels provide many features, such as battery back-up and automatic phone dialers.



Any number of GD-1S detectors can be used.



TYPICAL CONNECTION TO PROTECT CABIN CRUISERS, HOUSEBOATS, OR OTHER ENCLOSED BOATS.

