



# Macurco™ Hydrogen Gas Detector

## HD-11



## For use with alarm control panels

### Hydrogen Gas Detection

The HD-11 is a low voltage electronic detector of Hydrogen gas. The HD-11 is designed for connection to Fire Alarm/Burglary Control Panels. Alarm control panels that work on 12 or 24 VDC can provide battery backup to the HD-11 detectors. The unit is designed to work with control panel or other building management equipment to help monitor levels of hydrogen gas in a room or a facility where hydrogen gas may be present, for example where forklifts, backup power supplies, or golf carts battery charging stations are present. The HD-11 is intended for installation in buildings in non-hazardous locations such as residences, retail stores, office buildings, and similar facilities. This Hydrogen gas detector is NOT designed to detect smoke, fire or carbon monoxide.

### Easy Operation

A green LED signifies that the HD-11 is armed. If gas is detected, the Red LED turns on and the alarm condition relay is activated.

### Features

- Supervised Sensor
- Simple installation and operation
- SPDT Alarm and N.C. Trouble Relay
- Can be self-restoring or latching
- Alarm set point: 10% LEL hydrogen gas
- Solid State Electronic sensors: no maintenance or recalibration



## HD-11 Specifications

- Size: 4 ½ x 5 x 1 5/8 inches
- Shipping Weight: 0.54 pound
- Voltage: 12 to 24 VAC or VDC
- Current (non-alarm): 45 mA @ 12 VDC, 22 mA @ 24 VDC, 65 mA @ 12 VAC, 45 mA @ 24 VAC
- Current (in alarm): 70 mA @ 12 VDC, 35 mA @ 24 VDC, 100 mA @ 12 VAC, 65 mA @ 24 VAC
- Color: white
- Sensor Maintenance: not required
- Alarm Relay Rating: 0.125 A, 40 V, 3 VA
- Trouble Relay: 0.250 A, 40 V, 10 VA
- Operating Temperature Range: 32° to 120° F
- Alarm Set Point: 10% LEL hydrogen gas



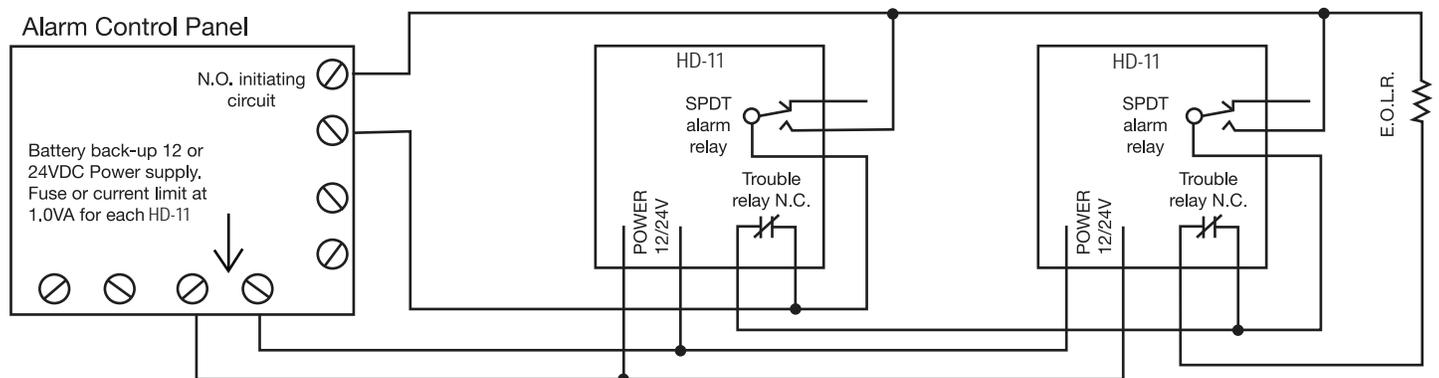
### Installation

The three part plastic case allows the HD-11 to be either surface mounted or installed over a four-inch square or double gang electrical box, providing a near flush mount.

### Location

Locate the unit high in the room where storage batteries are being charged, or where there may be other hydrogen sources. The Macurco Hydrogen Gas Detector HD-11 is NOT intended for use in industrial applications such as refineries, chemical plants, etc. The HD-11 can be affected by a broad range of combustible gases such as alcohol, ammonia, solvents, paint thinner, gasoline vapors and aerosol propellants. Do NOT mount the HD-11 in a corner. Do NOT mount the HD-11 where the normal ambient temperature is below 32° F (0° C) or exceeds 120° F (50° C). Mount the HD-11 on a wall or column about one foot down from the ceiling. Use the same spacing as for smoke detectors- 30-foot centers, 900 square feet per detector. The coverage depends on air movement in the room or facility. Extra detectors may be needed near any areas where people work or the air is stagnant.

### TYPICAL CONNECTION OF TWO HD-11 TO AN ALARM CONTROL PANEL



TYPICAL COVERAGE 900 SQUARE FEET

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