



Hydrogen Gas Detectors

Forklifts • Backup Power Supplies • Golfcarts • Battery Charging Stations



HD-12



HD-21-1-BR

System Detectors (Low Voltage)

HD-11 12-24VAC or VDC input, alarm relay.

HD-12 12-24VAC or VDC input, hi and low level alarm relays.

- Mounts in standard 4 x 4 electrical box.
- Alarm relay set at 10% of Lower Explosive Level (10% and 25% of LEL on HD-12).
- N.O. sealed reed type dry contact relays.
- Easy installation.
- No Maintenance or recalibration required.
- Supervised system.

120 Volt Unit

HD-21-1-BR buzzer and relay, mounts in 4 x 4 electrical box.

- Loud alarm sound: Approx 85db at 10 feet.
- Buzzer silencing switch.
- Easy installation
- Supervised system.
- No maintenance or recalibration required.

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- **Recommended Coverage:** 900 sq. feet.
 - **Mounting Height:** One foot below ceiling.

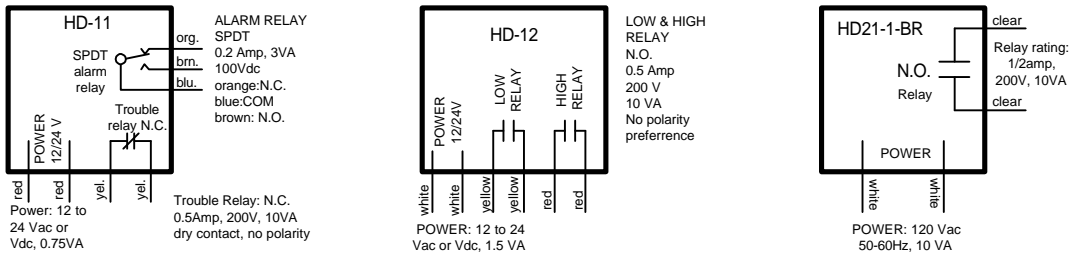
- **All units are 100% Gas Tested.**
- **Solid-State Sensor:** Maintenance Free

Manufactured By:

Macurco Inc.
3946 S. Mariposa Street
Englewood, CO 80110
303-781-4062 Fx: 303-761-6640
www.macurco.com

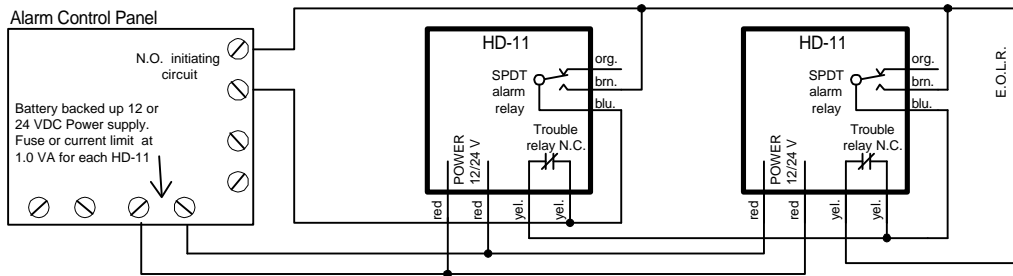
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HYDROGEN DETECTOR CONNECTIONS



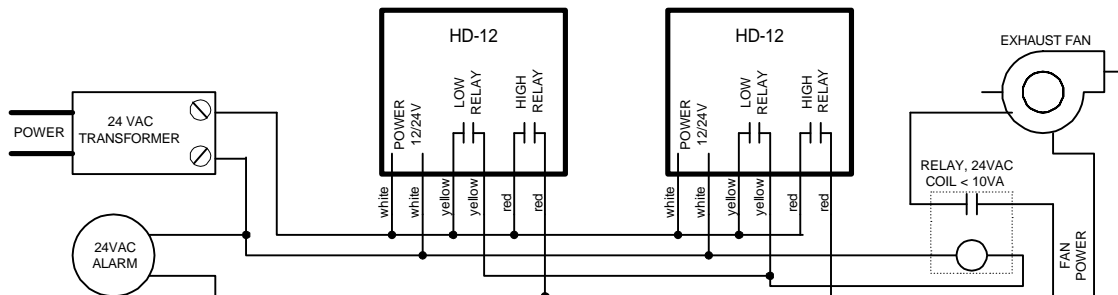
Mount Hydrogen Detectors high, as Hydrogen is lighter than air.
 Space the Detectors similar to smoke detectors: 30 feet centers, 900 square feet per detector.
 Relays are dry contact.

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



Alarm Control panels that operate on 12 Vdc or 24Vdc are available with many features including battery backup, automatic phone dialers, auxiliary relays.

MULTIPLE HD-12 SYSTEM CONTROLLING A LOW LEVEL EXHAUST FAN AND A HIGH LEVEL ALARM.



NOTE:

1. An alarm control panel similar to the HD-11 system above could be used, with an auxiliary relay to control the fan.
2. The fan relay contacts must be matched to the fan motor power. The HD-12 relay can only switch up 10 VA.
3. Hydrogen detectors mount high like smoke detectors.
4. Match the transformer size, in VA to the total 24 VAC load.

SPECIFICATIONS

	HD-11	HD-12	HD21-1-BR
SIZE:	4 1/2 X 5 X 1 5/8"	4 1/2 X 4 1/2 X 1 3/4"	4 1/2 X 4 1/2 X 1 3/4"
SHIPPING WEIGHT	one pound	one pound	one pound
COLOR	White	White	White
VOLTAGE	12 to 24 Vac or Vdc	12 to 24 Vac or Vdc	120 VAC
CURRENT	60 ma @ 24 V, 30 ma @ 12 V	120ma @ 24V, 60 ma @ 12 V	less than 10 watts
RELAY RATING	0.2 Amp, 3 VA	0.5 Amp, 10VA	0.5 Amp, 10 VA
TEMP. RANGE	0 to 150 F.	0 to 150 F	0 to 150 F