HGD-Series Hydrogen Gas & Smoke Detectors

HGD-3000i

Hydrogen Gas Detection

The HGD-Series is designed for gas detection in unattended battery installations or remote shelters containing gassing lead acid batteries and charging systems. The units will turn on an exhaust fan when hydrogen gas levels reach 1% and will alarm at 2%. This alarm consists of a local 80db horn, a flashing red LED, and a dry contact switch closure for remote alarming. The HGD-3000i includes a silent intrusion alarm in addition to the standard features of the base model. **For detection of only hydrogen gas, the HGD-2000 is available.**

Smoke Detection

The photoelectric smoke sensor detects minute combustion products from smoldering wire insulation, battery cases, and other material. When smoke is detected, a distinctive alarm is emitted from the 80db horn and a separate dry contact switch is activated. At this time, the exhaust fan is inhibited in order to deny the fire increased oxygen from outside air.

Temperature, Loss of Power, & Intrusion

During normal operation and in the absence of an alarm condition, an internal thermostat will turn on the exhaust fan at a preset temperature to reduce heat build-up in the room. Loss of power to the unit will also generate a dry contact alarm. Additionally, an optional infrared intrusion alarm will trigger a silent dry contact switch.

Features

- Highly sensitive and stable solid state hydrogen sensor
- Sensitive photoelectric smoke detector module
- Internal thermostat for automatic exhaust fan control at 40°C (104°F) with ±5° adjustable range
- Save insurance costs - reduce insurance premiums when placed in battery charging rooms

HGD-2000 Control Box

Technical Specifications	
Detection:	Hydrogen Gas, Smoke, Temperature, Intrusion
Alarms:	**HGD-3000:** 10A Relay for Exhaust Fan, 1A Relay for Loss of Power, 1A Relay for Smoke Alarm, 1A Relay for Intrusion, 1A Relay for 2% H2 Concentration **HGD-2000:** (2) Form C Relay
Relay Connections	RJ45, Punch-Down Block
Mounting:	(4) 4.5 mm (3/16 in) screws
Operating Environment:	Temperature: -10 – 40 °C (14 – 104 °F)
Power Requirements:	Standard: 85 – 265 VAC, 50/60 Hz Optional: 17 – 60 VDC or 12VDC
Compliance:	IEEE Standard 450; National Fire Protection Agency (NFPA) Article 64; NFPA 2: Hydrogen Technologies Code; Uniform Building Code (UBC) Section 6400; National Electric Code (NEC) Section 480.9 (A); NEC 501.125 (B); NEC 501.105 (1)-3 - use in Class 1 Division 2 Group B.
Dimensions:	178 x 120 x 55 mm (7 x 4.75 x 2.5 in)

Kit Includes

- Hydrogen Gas Detector
- User Manual
- **Optional:** Silent-Alarm Add-on
- **Optional:** Control Box or Breakout Box
- **Optional:** Junction Box