



## HGD-Series Hydrogen Gas, Smoke, & Temperature 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. Save on on insurance premiums when placed in battery charging rooms.

### 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.

### Technical Specifications

<b>Detection</b>	Hydrogen Gas, Smoke, Temperature, Intrusion
<b>Alarms</b>	<b>HGD-3000:</b> 10A Relay for Exhaust Fan, 1A Relay for Loss of Power, 1A Relay for Smoke Alarm, 1A Relay for Intrusion, 1A Relay for 2% H <sub>2</sub> Concentration <b>HGD-2000:</b> (2) Form C Relay
<b>Relay Connections</b>	RJ45, Punch-Down Block
<b>Mounting</b>	(4) 4.5 mm (3/16 in.) screws
<b>Environmental</b>	Temperature: -10 – 40 °C (14 – 104 °F)
<b>Power Requirements</b>	Standard: 85 – 265 VAC, 50/60 Hz Optional: 17 – 60 VDC
<b>Compliance</b>	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.
<b>Dimensions</b>	178 x 120 x 55 mm (7 x 4.75 x 2.5 in.)

### Ordering Information

Model #	Description
HGD-2000	Hydrogen Gas Detector
HGD-3000	Hydrogen Gas / Smoke Detector
HGD-3000i	Hydrogen Gas / Smoke Detector with Infra-red Intrusion Alarm
Control Box	Remote control box with connection cable for the HGD-2000
Breakout Box	Breakout box for the HGD-3000 or HGD-3000i



HGD Control Box

### Kit Includes

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