

# HYDROGEN DETECTION

Model ~ H2-IS

## FEATURES:

- INTRINSIC SAFETY APPROVAL (IS)
- USES NORMAL WIRING AND OPEN CONDUIT
- NO DECLASSIFICATION OF FACILITY NEEDED TO SERVICE H2-IS
- NO SHUT DOWN OF FACILITY IN ORDER TO SERVICE THE H2-IS
- THE AUTOMATIC SENSOR CALIBRATION SYSTEM ELIMINATES MANUAL CALIBRATION
- H2-IS SOFTWARE PROVIDES DATA ARCHIVE OF CALIBRATION DATES/TIMES AND BEFORE/AFTER SENSOR VALUES.
- USE WITH WINDOWS OR LINUX OS
- H2-IS ALSO DETECTS OTHER GASES: CHG, LNG AND LPG
- COMPANION TO H2-IS THE DUAL-CHANNEL INTRINSIC SAFETY BARRIER PROVIDING SENSOR POWER AND SIGNAL COMMUNICATIONS TO THE COMPUTER



H2-IS



Controller & H2-IS

## APPLICATION:

MONITOR HYDROGEN BUILD UP DUE TO LEAKAGE FROM FUEL CELL OPERATIONS.

- GARAGES, AIRPLANE HANGERS, BOAT HOUSES, MARITIME PORTS; ANYWHERE H2 HAS REPLACED THE USE OF BATTERIES
- CONSTRUCTION SITES USING H2 HOUSED IN BUILDINGS OR CONTAINERS FOR HEAT & POWER UNTIL SITE IS CONNECTED TO THE POWER GRID
- NASA SPACE PROGRAM
- MANUFACTURING OF DEVICES THAT FORMERLY USED BATTERIES
- HYDROGEN FUEL CELL STORAGE FACILITIES



**TECHNICAL ASSOCIATES**  
**OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303  
818-883-7043 (Phone) 818-883-6103 (Fax)

[sales@usnuclearcorp.com](mailto:sales@usnuclearcorp.com)

Divisions of



US NUCLEAR CORP

**OTCQB UCLE**

[WWW.TECH-ASSOCIATES.COM](http://WWW.TECH-ASSOCIATES.COM)

# HYDROGEN DETECTION

Model ~ H2-IS

## SPECIFICATIONS:

### Facility:

- Intrinsic Safety Approval (IS) - Class I, Div 1, Groups B, C and D.
- Uses normal wiring and open conduit OK, 3-core shielded
- No declassification of facility needed to service the sensor OK
- Use with Windows or Linux OS
- The sensor can be remote from the controller up to 1,000 feet.
- This is a hard-wired connection with a 3-conductor shielded cable?

### Detection:

- Hydrogen. Also detect other gases: CHG, LNG and LPG. Most combustibles.

### Alarms:

- 0.25% (High), 1% (High, High), Fail Two alarm thresholds, user settable. A High, High failure would be indicated by high alarm (horn and strobe.)
- Alarms have two user-settable trip points, with two DPDT buffer relays (double-pole, double-throw relays.)
- Horn and strobe are standard. OK
- Buffer relays - High current (110VAC/10A) contacts that isolate sensor and control electronics from external user control voltages.

### Controller and Display:

- The hydrogen level is on the display of the controller.
- Size of the display and type: 0.5" high; LCD
- 4-20ma sensor output signal + alarm relays

### Range:

- Measuring range: 0-4%
- LEL: H2-IS is 4%.

### Environmental Operating Conditions:

- Temp (0-120F) (-17 to +49C), RH? 5-95%, Non condensing

### Power:

- Power to the controller is 110/120VAC or 24 VDC.
- OPTIONAL: DC rechargeable batteries and a charger. Or use a UPS.
- The power from the controller powers the sensor



**TECHNICAL ASSOCIATES**  
**OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303  
818-883-7043 (Phone) 818-883-6103 (Fax)

[sales@usnuclearcorp.com](mailto:sales@usnuclearcorp.com)

Divisions of



US NUCLEAR CORP

**OTCQB UCLE**

[WWW.TECH-ASSOCIATES.COM](http://WWW.TECH-ASSOCIATES.COM)

# HYDROGEN DETECTION

Model ~ H2-IS

•

## Weight and Dimensions of:

- Sensor: 2.5 lbs, (1.2Kg) 5x5x5.5" (127x125x140mm)
- Controller: circa 12 lbs (5.5Kg) 8x10x4" (203x254x101mm)
- Mounting options: normal wood or machine screws
- Environmental operating conditions: Temp (0-120F) (-17 to +49C), RH? 5-95%, Non condensing
- Calibration : OPTIONAL: A calibration adapter is available: SEN-CAP.

## Dual-Channel Intrinsic Safety Barrier

- **OPTIONAL:** Model DBL-GB recommended to for safety of sensor power and signal communication to user's computer?



**TECHNICAL ASSOCIATES**  
**OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303  
818-883-7043 (Phone) 818-883-6103 (Fax)

[sales@usnuclearcorp.com](mailto:sales@usnuclearcorp.com)

Divisions of



US NUCLEAR CORP

**OTCQB UCLE**

[WWW.TECH-ASSOCIATES.COM](http://WWW.TECH-ASSOCIATES.COM)