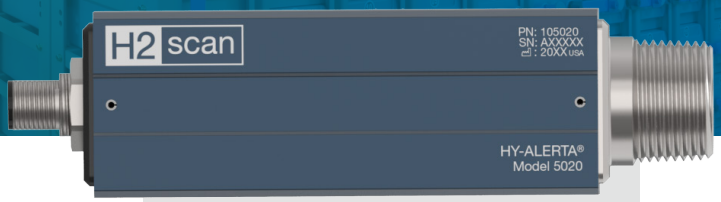
HY-ALERTA® 5020

HYDROGEN AREA SAFETY MONITOR

H2scan®
Advanced Hydrogen Sensing



Solid State, Maintenance-Free Fixed Area Hydrogen Safety Monitor

The most advanced technology provides the lowest cost of ownership. Sensors only detect hydrogen, eliminating false positives. Expensive replacements are unnecessary, with a long lifespan sensor life cycle. The self-calibration feature eliminates maintenance events. H2scan hydrogen sensing solutions offer various communication options, including Modbus, dry contacts, and 4-20 mA analog communications.

The HY-ALERTA® 5020 Meets All Code & Standards Requirements

- **Compliance:** According to codes and standards, hydrogen must be kept below 25% of the lower flammability level (1% of room volume) for all battery types, including lead acid, nickel-cadmium, lithium, and other technologies
- **Battery Safety:** Ideal for use in battery rooms and enclosures to detect if hydrogen is present and prevent the dangerous accumulation of hydrogen gas
- **Exhaust Fan Activation:** Communicates to relays that activate exhaust fans
- **Annunciation Compliance:** Modbus communication to meet annunciation requirements. Dry contacts, 4-20 mA analog communication modules are available
- **Communication Continuity:** Reports hydrogen continuously over Modbus
- **Easy Connection:** Provides easy cable connections to each sensor. Sensors may be linked for easy installation

Benefits

- **Advanced Technology:** Provides the lowest cost of ownership
- **Hydrogen-Specific Detection:** Sensors only detect hydrogen, eliminating false positives
- **Long Sensor Life:** The sensor life cycle eliminates the need for expensive replacements
- **Maintenance-Free:** The self-calibration feature eliminates manual calibration and maintenance events
- **Flexible Communication:** H2scan hydrogen sensing solutions include various communication options, such as Modbus, 4-20 mA analog communications, and dry contact outputs

Applications

Battery Rooms: Hydrogen monitoring during lead acid battery charging

Control Rooms/Analyzer Buildings: Detection of potentially flammable hydrogen buildup in occupied areas

Laboratories: General hydrogen safety monitoring

Alternative Energy: Hydrogen refueling station safety monitoring. Fuel cell and electrolyzer leak monitoring

Hydrogen Cooled Generation and Turbines: Leak detection during operation

Industrial Gas Supply and Hydrogen Production: Leak detection around hydrogen storage facilities and pipes

Furnaces and Manufacturing: Area monitoring for unburnt hydrogen

Other Applications: General area monitoring wherever there is a risk of hydrogen accumulation

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Product Details

IEC 61326-1

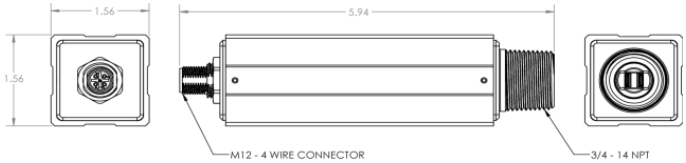
Standards and Certifications

IEC 60068-2-2 & EN 50155 Section 13.4.4	IEC 60068-2-27
IEC 60068-2-11 & DIN EN ISO 12944	IEC 55022 IFCC Part 15 EN
IEC 60529	55011 Class A Group 1
IEC 60068-2-6 table C2	IEC 61000-4-2, 61000-4-3, 6100-4-6, and 61000-4-8
IEC 60068-2-64 paragraph A.2, category no. 2	IEC/ EN 61010-1
	IEC 61326-1

Performance Specifications

Operating Temperature	-10°C to 60°C (14°F to 140°F)
Voltage Input	8.1 - 52.8 VDC
Power Consumption	10 W
Low H_2	0%
High H_2	5%
Lower Detection Limit (LDL)	0.4% H_2
Response Time	<60 seconds
Accuracy (Absolute Error)	0.3% H_2
Repeatability (Absolute Error)	0.3% H_2

HY-ALERTA 5020 Dimensions

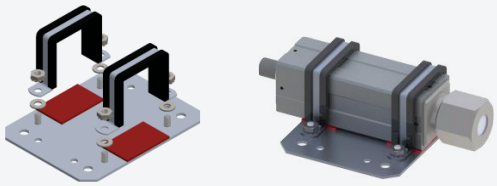


Mounting Kit Operations

The HY-ALERTA 5020 sensors have two mounting options that make it easy for installation:

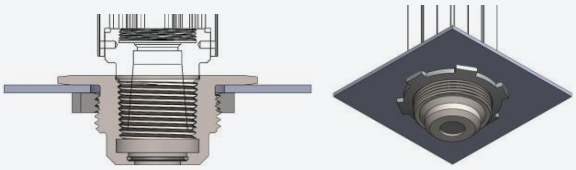
General Purpose Mount

This mount can be mounted to a ceiling or other structure using the included mounting plate with pre-drilled holes.



Enclosure Bulkhead Style Mount

Designed for mounting to indoor or outdoor enclosures, providing flexibility in installation locations.



These mounting options ensure the HY-ALERTA 5020 sensor can be easily integrated into various environments, whether in rooms, enclosures, or outdoor settings, facilitating straightforward deployment setup.

Specifications subject to change without notice

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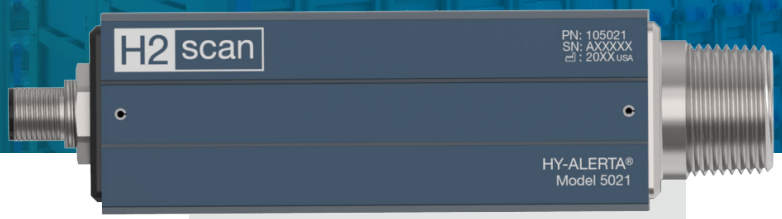
HY-ALERTA® 5021

BATTERY ROOM AREA MONITOR

H2scan®
Advanced Hydrogen Sensing



Solid State, Maintenance-Free Battery Room Hydrogen Monitor

The most advanced technology provides the lowest cost of ownership. Sensors only detect hydrogen, eliminating false positives. Expensive replacements are unnecessary, with a long lifespan sensor life cycle. The self-calibration feature eliminates maintenance events. H2scan hydrogen sensing solutions offer various communication options, including Modbus, dry contacts, and 4-20 mA analog communications.

The HY-ALERTA® 5021 Meets All Code & Standards Requirements

- **Compliance:** According to codes and standards, hydrogen must be kept below 25% of the lower flammability level (1% of room volume) for all battery types, including lead acid, nickel-cadmium, lithium, and other technologies
- **Battery Safety:** Ideal for use in battery rooms and enclosures to detect if hydrogen is present and prevent the dangerous accumulation of hydrogen gas
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Benefits

- **Advanced Technology:** Provides the lowest cost of ownership
- **Hydrogen-Specific Detection:** Sensors only detect hydrogen, eliminating false positives
- **Long Sensor Life:** Expensive replacements are unnecessary, with a long lifespan sensor life cycle.
- **Maintenance-Free:** The self-calibrating feature eliminates manual calibration and maintenance events
- **Flexible Communication:** H2scan hydrogen sensing solutions include various communication options, such as Modbus, 4-20 mA analog communications, and dry contact outputs

Applications

Data center UPS

Utility applications and substations

Energy storage batteries

Features

Solid state technology

Self-calibrating

10-year warranty

Field configurable settings

No cross-sensitivity

Long-term reliability

High resistance

HY-ALERTA® 5021

BATTERY ROOM AREA MONITOR

Product Details

IEC 61326-1

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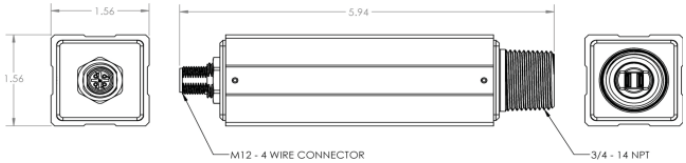

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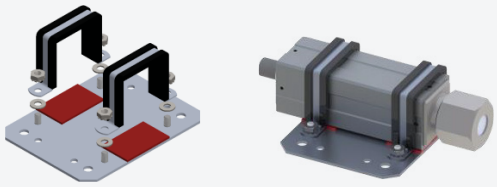

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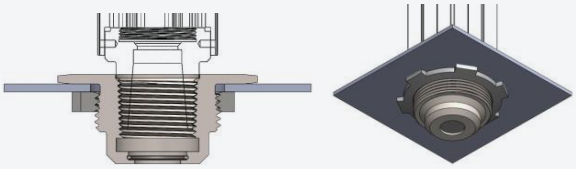

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