

HY-ALERTA™ 1600 Intrinsically Safe Area Hydrogen Monitor

Description

H2scan's HY-ALERTA™ 1600 Intrinsically Safe Area Hydrogen Monitor provides hydrogen-specific leak detection and measurement for hydrogen concentrations as low as 4000 ppm and can be scaled to any concentration up to 5% hydrogen by volume, a range representing 10% to 125% of hydrogen's low flammability limit. The monitor is designed for either ceiling or wall mount and has an RS422 capability that extends an intrinsically safe interface from the sensor to the controller to several hundred feet. **H2scan's** hydrogen-specific sensor technology has no cross sensitivity to other combustible gases, thus eliminating false positive alarms and ensuring safety system reliability.

Performance

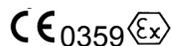
Hydrogen Sensitivity Range:
 0.4% to 5% hydrogen by volume
 10% to 125% hydrogen lower flammable limit
 Accuracy: $\pm (0.03 \times \text{indication} + 0.2)$ percent hydrogen by volume
 Typical Response Time: T90 of 60 sec maximum
 Ingress Protection: IP64 capable
 Calibration Interval: 90 days
 Product Life Expectancy: 10 years

Interface Options

Power Barrier Input Voltage: 24 VDC nominal
 Power Barrier Input Voltage Range: 20 VDC to 28 VDC
 Intrinsically Safe Sensor Input Voltage: 10 VDC
 Sensor Input Voltage Range: 5 VDC to 28 VDC
 Input Power: 10 W
 Analog Output: 4 mA to 20 mA
 Serial Communication: RS422



Certification



II 1 G, Ex ia II H2, d+d IIB T3
 II 2 G, Ex ib II H2, ib d IIB T3
 ITS07ATEX25634X

Figure 1 shows the hazardous area designations for this apparatus. Note that the sensor probe tip is rated for Category 1 (Zone 0) and the electronics assembly is rated for Category 2 (Zone 1).

Operating Conditions

Operating Humidity: 0% to 95% RH
 Operating Temperature Range: -20°C to 40°C
 Storage Temperature Range: -40°C to 50°C
 Calibration Background Gas: Air

Included Accessories

Intrinsically Safe Power Barrier
 Armored Power / Analog Cable: 4 m
 Calibration Cup

Optional Accessories

Single Channel Intrinsically Safe Analog Output Barrier (with or without relays)
 Single Channel Intrinsically Safe RS422 Serial Interface Barrier
 Serial Interface Cable: 4 m (custom lengths available)
 Armored Power / Analog Cable (custom lengths available)

Dimensions

Total Length: 8.1 in.
 Total Width: 4.4 in.
 Depth: 1.6 in.

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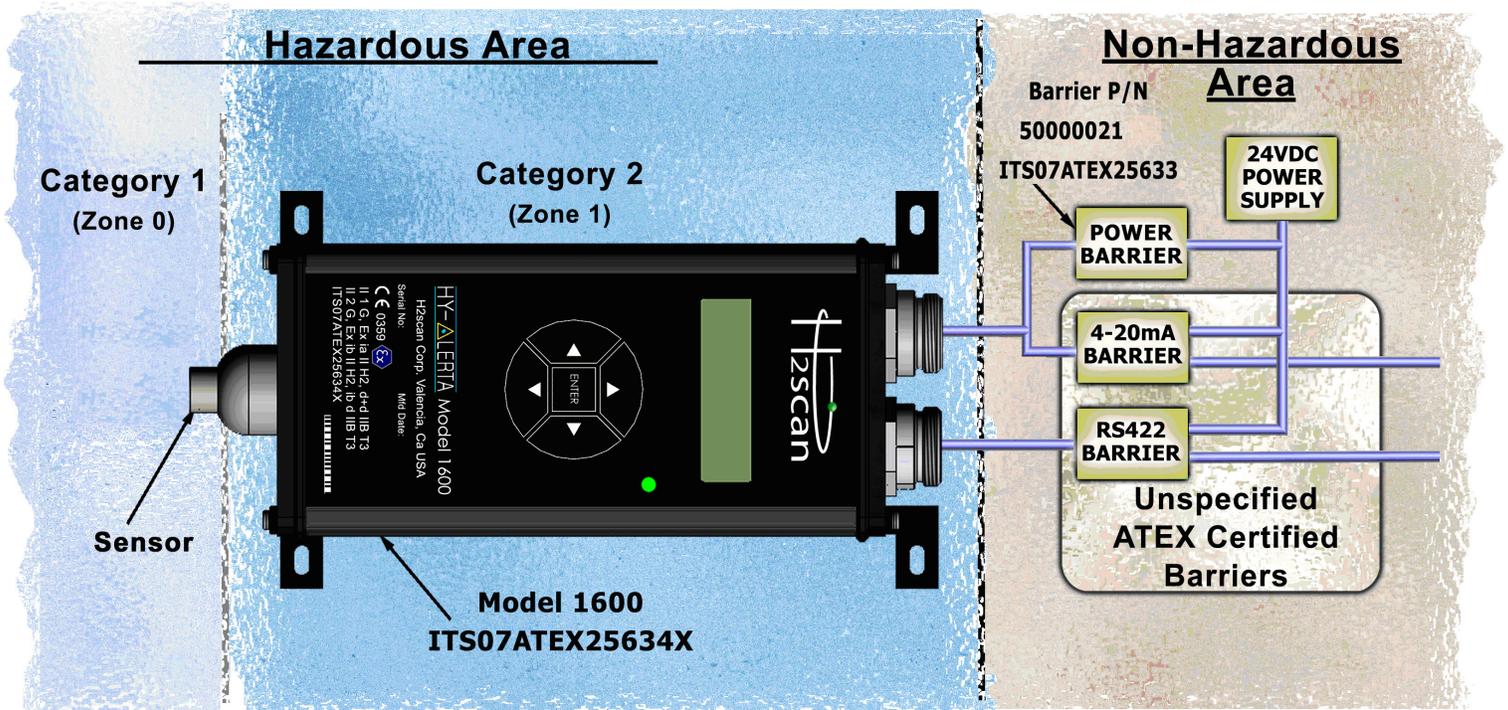


Figure 1: Hazardous Area Installation and Attachment

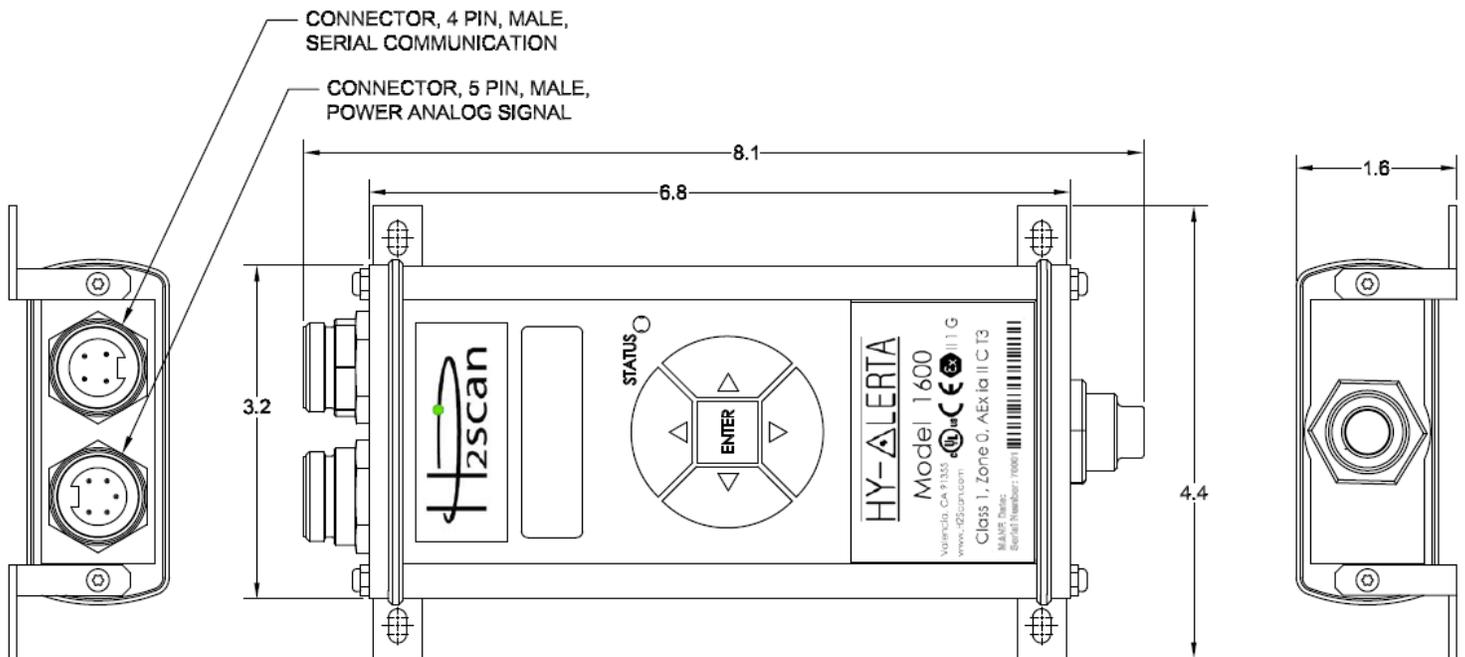


Figure 2: Dimensions (inches)