

New!

# SENSALERT PLUS

Universal Area Monitor Accepts Combustible (Infrared or Catalytic), Toxic and Oxygen Gas Sensors

## Highest Reliability And Function

- Sensor Test-On-Demand, with On-board Gas Generator
- Predictive Sensor End-of-Life Warning
- Missing or Non-functional Sensor Indication

## Intrinsically Safe Sensor Head

- Shop Calibrate and Hot-swap Gas Sensors in Classified Areas
- Mount Sensor up to 100 ft./30 m. Away without XP Conduit

## Intelligent SensAlert<sup>Plus</sup> Sensors

- Auto-recognition and Set-up from Sensor Memory Provides
- Operating Parameters and Diagnostics for All <sup>Plus</sup> Transmitters

## International Performance Approvals

- Performance Tested and Certified to FM and ATEX Standards
- Unrestricted Hazardous Classified Area Installation and Operation

## Flexible Installation or Retrofit

- 2-Wire and 3-Wire Transmitters with Enclosure Options
- Non-intrusive Configuration and Maintenance Interface
- Remote Sensor / Gassing, Duct Mount and Sample Draw
- Configurable Alarms: Fault Conditions, Gas Levels, TOD, PSF, TWA

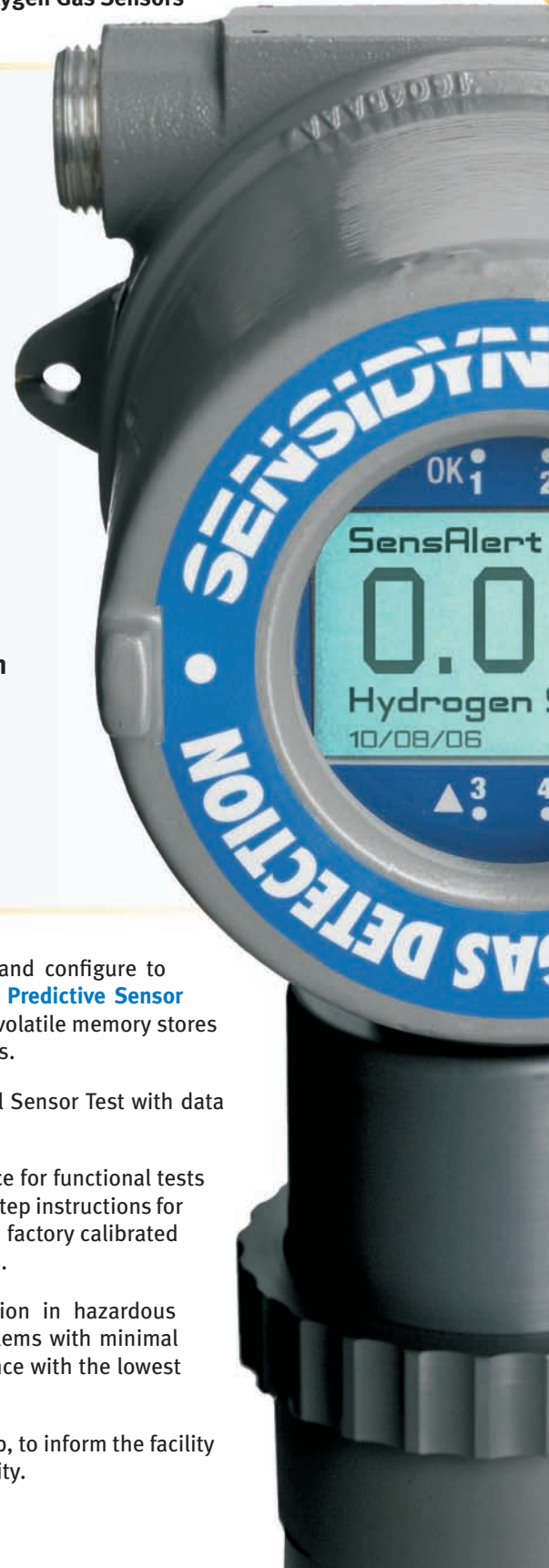
**Smart Sensor Technology** enables **SensAlert<sup>Plus</sup>** to automatically recognize and configure to the gas type and range of the sensor, using the latest calibration data. **The Predictive Sensor Failure (PSF)** function provides warning of approaching sensor end-of-life. Non-volatile memory stores calibration date and time, operating parameters, default settings and PSF values.

**Unique Test-On-Demand (TOD)** built-in gas generation cell affords a Functional Sensor Test with data recall, that ensures sensors are 'healthy' eliminating manual bump testing.

**Maintenance is greatly reduced** with a non-intrusive, menu-driven user interface for functional tests and configuration (password protected). A large graphic display shows step-by-step instructions for calibration, configuration and data retrieval. **SensAlert<sup>Plus</sup>** Sensors are shipped factory calibrated and have been Agency approved for hot-swapping in hazardous classified areas.

**Performance Testing and Certification** permits virtually unrestricted operation in hazardous classified areas. Intrinsically safe installation solves difficult application problems with minimal maintenance, while delivering a high level of operational security and confidence with the lowest cost of ownership.

**Fully Configurable Alarms** - Assign up to four relays plus warning on current loop, to inform the facility of gas monitor status and target gas value, delivering the highest system integrity.





**A & E Specification** Optional items in ( )  
 FM (ATEX) approved Gas Detection equipment will be installed to comply with NFPA 820 and NEC Standards.

The Sensor Head shall be Intrinsically Safe to minimize installation-maintenance costs and employ temperature compensated, hot-swappable smart sensors, with non-volatile memory for all operating parameters.

Predictive Sensor Failure (and Sensor Test-On-Demand) function(s) will be provided. The Universal Transmitter must automatically recognize and set-up for Electrochemical, Catalytic, and Infrared Gas Sensors.

A large, menu-driven graphic display for Gas Name or type, measured value, units, and maintenance functions, password protected per the ISA Standard, shall be provided. (LEDs will confirm interface actions and annunciate the standard and optional alarm relays.)

The transmitter must perform continuous diagnostics and produce user configurable alarms including Value, TWA, and PSF, with one (four) standard relay(s) and a warning on the current loop. A 4-20 mA output capable of driving 600 Ω at 24 VDC transmitter terminal voltage is required.

The Vendor shall furnish a priced spare parts list for two years operation and a calibration kit with one year's gas supply. A factory technician will commission the system and train the owner's personnel.

The gas detection shall be SensAlert Plus by Sensidyne.

**Ordering Information**

<b>Transmitters</b>	
2-Wire GP .....	820-0201-01
3-Wire GP .....	820-0202-01
3-Wire GP with IS barrier .....	820-0202-04
3-Wire GP for use with relay card? .....	820-0202-03
2-Wire HD Div2 .....	820-0203-01
3-Wire HD with IS barrier .....	820-0204-04
3-Wire HD Div2 Standard Dome .....	820-0204-01
2-Wire HD Div2 Large Dome <sup>2</sup> .....	820-0204-02
2-Wire XP Div1 .....	820-0205-01
3-Wire XP Div1 Standard Dome .....	820-0206-01
3-Wire XP Div1 Large Dome <sup>2</sup> .....	820-0206-02

<b>FM Approved Sensors</b>	
NH <sub>3</sub> 0-100 ppm .....	823-0201-21
Cl <sub>2</sub> 0-10 ppm .....	823-0202-21
H <sub>2</sub> S 0-100 ppm .....	823-0206-21
H <sub>2</sub> 0-1000 ppm .....	823-0210-21
Cat Bead 0-100% LEL Comb <sup>1</sup> .....	823-0211-31
IR Combustible 0-100% LEL <sup>1</sup> .....	823-0211-51
SO <sub>2</sub> Filtered 0-20 ppm .....	823-0218-21
CO 0-500 ppm .....	823-0219-22
O <sub>2</sub> 0-25% by volume .....	823-0240-21

<b>Test-On-Demand and Accessories</b>	
TOD Cell for Cl <sub>2</sub> .....	821-0204-02
TOD Cell for H <sub>2</sub> S .....	821-0204-06
Moisture Barrier Assembly .....	821-0201-01
Calibration Cup/Flow Block .....	821-0202-01
Rainshield .....	821-0203-01
Relay Card .....	700-0046-01

Consult factory for a complete list of sensors, accessories and Test-On-Demand cells.

Notes: Type C TOD Cell for use with Cl<sub>2</sub> sensor, Type S for use with H<sub>2</sub>S  
<sup>1</sup> Only for use with 3-wire transmitters. Not approved for Zone 0.  
<sup>2</sup> Optional relay card available for use with these transmitters - sold separately.

**Technical Specifications**

**Sensors**  
 Gas Sensors: ..... Combustibles, Toxics and Oxygen  
 Test-On-Demand Modules: ..... Type C and Type S

**Electrical**  
 Voltage/Power:  
 2-Wire 24 VDC (18-30 VDC): ..... 20 mA  
 3-Wire 24 VDC (12-30 VDC): ..... 90 mA  
 With Opt. Relay Card and  
 combustible sensors: ..... 300 mA  
 Output and load resistance with 24 VDC  
 at transmitter terminals:  
 3 wire 4-20 mA: ..... 600 Ω minimum  
 2-wire 4-20 mA: ..... 250 Ω minimum  
 Relay: ..... 3-Wire Only - One SPDT Configurable Relay  
 Optional Card: ... Three (3) SPDT Configurable Relays  
 Contact Ratings: ..... 5 Amps at 115 VAC or  
 30 VDC Resistive

**Controls**  
 Magnetic Keypad: ..... OK, << (Go Back), ▲, ▼  
 Security: ..... Password Protected Configuration Menu

**Displays**  
 LEDs: ..... Four (4) Red, corresponding to magnetic keypad, and Alarm Relays when so equipped.  
 Graphic LCD: ..... 128 by 64 pixel screen (backlight on 3-wire transmitters); displays Concentration and Measuring Units, Gas Name or Type, Sensor Span, Local Date-Time, Tag Number and System messages or Warnings

**Environmental**  
 Temperature (Transmitter): -40°F – 158°F / -40°C – 75°C  
 Temperature (Sensor): ..... See Sensor Data Sheets  
 Humidity (Sensor): ..... 15% – 95% RH, non-condensing  
 0-99% Infrared, non-condensing  
 0-90% Catalytic, non-condensing

**Enclosure Options**  
 NEMA 4X (IP 66): ..... Polycarbonate  
 Dimensions: ..... 7.5" W x 12.6" H x 6.2" D  
 190 mm W x 320 mm H x 157 mm D  
 Weight Range: ..... 5.5-6.4 lbs / 2.5-2.9 kg  
 Explosion-proof (IP 66): ..... Copper-free, Cast Aluminum  
 Physical: ..... 5.5" W x 12.3" H x 4.6" [6.4"] D  
 140 mm W x 312 mm H x 117 mm [163 mm] D  
 Weight Range: ..... 6.1-7.9 lbs / 2.8-3.6 kg  
*Note: Brackets indicate large dome depth.  
 IP66 with use of an optional rainshield.*

**Approval Ratings**  
 Explosion Proof  
 NEC/ CEC: ..... Class I Div 1, Groups A, B, C & D, T4  
 Class II Div 1, Groups E, F & G; Class III Div 1  
 ATEX: ..... Eex d[ia] IIC T4 II 2 G  
 Non-Incendive  
 NEC/ CEC: ..... Class I Div 2, Groups A, B, C, D  
 Class II Groups F & G; Class III Div2  
 ATEX: ..... Eex nA [ia] IIC T4 II 3 G  
 Intrinsically Safe  
 NEC/ CEC: ..... Class I Div 1, Groups A, B, C, D, E  
 Class II, Groups F & G; Class III  
 ATEX: ..... Eex ia IIC T4 II 1 G

