

SENSALERT PLUS

Universal Point Gas Detector Accepting Combustible
(Infrared or Catalytic), Toxic, and Oxygen Gas Sensors



Highest Reliability and Function

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

Intrinsically Safe Sensor Head

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

Intelligent SensAlert *Plus* Sensors

- Auto-recognition and Set-up from Sensor Memory Provides Operating Parameters and Diagnostics for All *Plus* 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 and Test-on-Demand

Increased Reliability

Intelligent and dependable firmware monitors the intelligent *Plus* sensor for changes that could effect performance. Sensor condition and maintenance notifications are displayed locally and can be sent to a controller or facility monitoring system via on-board relays, a virtual relay (assignable to a fault current), RS-485 Modbus, or HART. This thorough monitoring provides increased reliability.

Simple to Install & Maintain

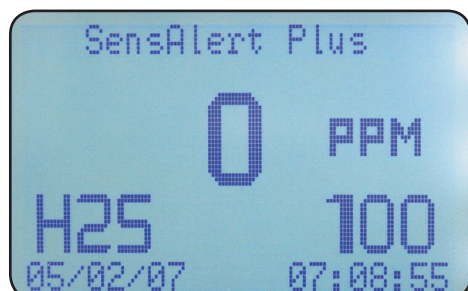
The SensAlert *Plus* Intrinsically Safe sensor head can be remote mounted up to 100 feet (30m) from the transmitter providing greater flexibility to position the transmitter in an personnel-accessible location while positioning the sensor closer to potential hazards. A wide range of sensors, accessories and remote gassing/sampling systems further simplify maintenance and provide installation flexibility.

Reduced Cost of Ownership

Shop or field calibrate, then swap sensors under power to minimize maintenance and calibration time. A large backlit alphanumeric display with a non-intrusive user interface allows for configuration, setup, and data review without declassifying a hazardous area. SensAlert *Plus* is a universal transmitter allowing facility standardization across gas types, sensor technologies, and sensor ranges.

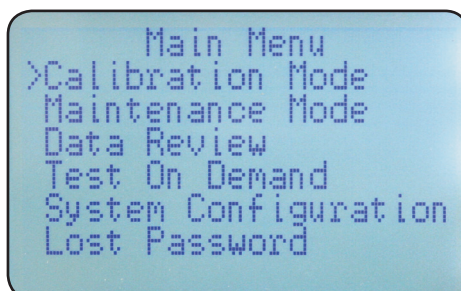
SENSALERT[®] PLUS

**Universal Point Gas Detector Accepting Combustible
(Infrared or Catalytic), Toxic, and Oxygen Gas Sensors**




SensAlert Plus
0 PPM
H2S 100
05/02/07 07:08:55

Main Display



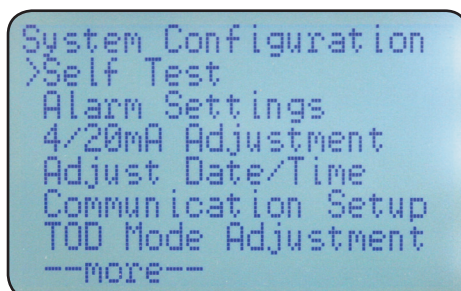
Main Menu
>Calibration Mode
Maintenance Mode
Data Review
Test On Demand
System Configuration
Lost Password

Main Menu



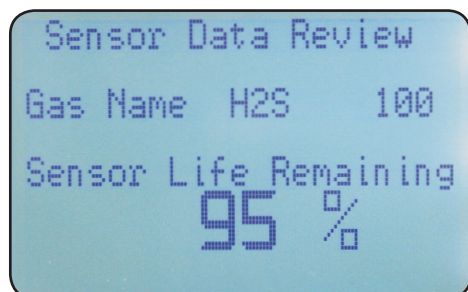
Data Review
>TOD Review
Sensor Review
Fault Currents
Active Alarms/Faults
Rly Alm Fault Config
Calibration Info

Data Review Menu



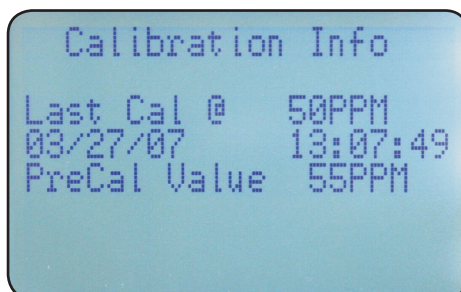
System Configuration
>Self Test
Alarm Settings
4/20mA Adjustment
Adjust Date/Time
Communication Setup
TOD Mode Adjustment
--more--

System Configuration Menu



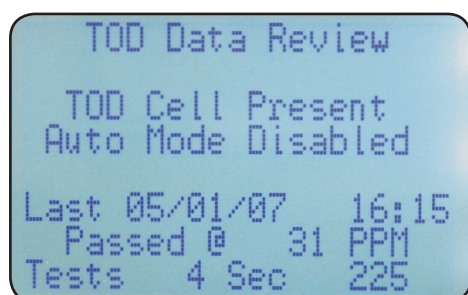
Sensor Data Review
Gas Name H2S 100
Sensor Life Remaining
95 %

Sensor Data Review



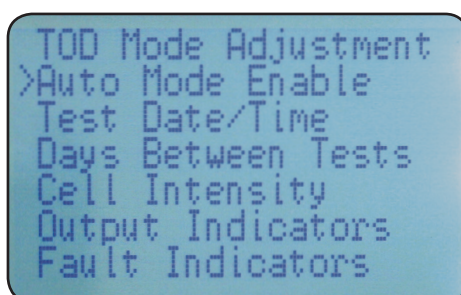
Calibration Info
Last Cal @ 50PPM
03/27/07 13:07:49
PreCal Value 55PPM

Calibration Information Screen



TOD Data Review
TOD Cell Present
Auto Mode Disabled
Last 05/01/07 16:15
Passed @ 31 PPM
Tests 4 Sec 225

Test-on-Demand™ Data Review



TOD Mode Adjustment
>Auto Mode Enable
Test Date/Time
Days Between Tests
Cell Intensity
Output Indicators
Fault Indicators

TOD Mode Adjustment

Robust firmware within SensAlert Plus monitors the intelligent Plus sensor for changes that could effect performance. Sensor condition and maintenance notifications are displayed locally on the large alphanumeric display and can be sent to a controller or facility monitoring system via on-board relays, a virtual relay (assignable to a fault current), RS-485 Modbus, or HART. Plus series sensors store operating parameters and setup information within non-volatile memory that allows for auto-recognition and setup once installed into the sensor head.

Enclosure Options Certified
for most Environments

Large Backlit Alphanumeric
Display
(Backlit on 3-wire only)

HART or Modbus (RS-485)
Communication Cards
(Optional)

Alarm Relay Card
(Optional)

Intrinsically Safe Sensor
Head

Test-On-Demand™ (ToD)
Gas Generator
(Optional)

Plus Intelligent Sensor

O-ring Seal

Sensor Retainer

Moisture Barrier (Optional)

Remote Gassing Fixture
(Optional)

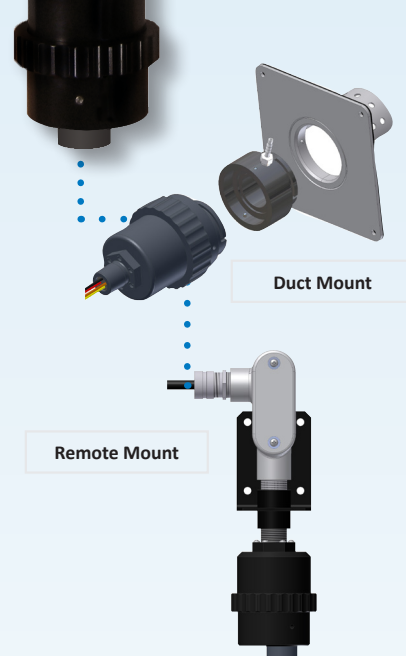
Sensor Shield

Flow Block for Remote
Sampling and Cal Plug
(Optional)

Baffled Rainshield
(Optional)



Shown with optional second strobe.



SENSALARM PLUS

SensAlarm Plus is a complete single point gas detection system comprised of a gas detection transmitter, sensor, power supply, outputs, and annunciation. This system is extremely cost-effective and easy to install. SensAlarm Plus is compatible with all SensAlert Plus sensors and accessories.

Ordering Information

Part Number	Wiring	Division/ Installation	Backlit Display	Enclosure	Remote Mount Compatible	Enclosure Material	Relay Included	Option Card Compatible ¹
820-0208-01 ²	2-wire	Div. 2		Fiberglass		Fiberglass		
820-0202-01	3-wire	Div. 2	✓	Fiberglass	✓	Fiberglass	✓ 1	
820-0202-03	3-wire	Div. 2	✓	Fiberglass	✓	Fiberglass	✓ 1	✓ ³
820-0202-04 ³	3-wire	I.S.	✓	Standard	✓	Fiberglass		
820-0209-01 ²	2-wire	Div. 2		Standard		Aluminum		
820-0204-01	3-wire	Div. 2	✓	Standard	✓	Aluminum	✓ 1	
820-0204-02	3-wire	Div. 2	✓	Long Dome	✓	Aluminum	✓ 1	✓ ³
820-0204-04 ³	3-wire	I.S.	✓	Standard	✓	Aluminum		
820-0207-01 ²	2-wire	Div. 1, XP		Standard		Aluminum		
820-0206-01	3-wire	Div. 1, XP	✓	Standard	✓	Aluminum	✓ 1	
820-0206-02	3-wire	Div 1, XP	✓	Long Dome	✓	Aluminum	✓ 1	✓ ³

¹ Option cards include: RS-485 (Modbus) communication card, HART communication card, and three-relay connection card. ² Sensor head cannot be remote mounted. ³ Includes I.S. barrier.

Specifications

Sensors

Gas Sensors: Electrochemical, Infrared, Catalytic Bead
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 & load resistance w/ 24 VDC at transmitter:

3 wire 4-20 mA: 600 Ω min

2-wire 4-20 mA: 350 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

Communication Link 4-20mA current, non-isolated
2 or 3-wire options, RS-485 (Modbus), HART

Controls

Magnetic Keypad: OK, << (Go Back), ▲, ▼

Security: Password Protected Configuration Menu

Displays

LEDs: Four (4) Red, corresponding to magnetic keypad,
and Alarm Relays when equipped.

Graphic LCD: 128 by 64 pixel screen (backlight on 3-wire
transmitters); displays Concentration and Measuring
Units, Gas Name or Type, Sensor Span, Date and Time,
Tag Number. and System messages or Warnings

Environmental

Temperature (Transmitter): -40°F to 158°F / -40°C to 70°C

Humidity (Transmitter) 0-90% RH, non-condensing

Temperature (Sensor): See Sensor Data Sheets

Humidity (Sensor): See Sensor Data Sheets

Moisture Resistance IP54; IP56 with optional rainshield

Enclosure Options

NEMA 4X: 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: 5.5-7.2 lbs / 2.5-3.3 kg

Explosion-proof Copper-free, Cast Aluminum

Physical: . 5.5" W x 12.3" H x 4.6" [6.4"] D / 140 mm x 312 mm
x 117 mm [163 mm] D

Weight Range: 6.1-8.7 lbs / 2.8-4.0 kg

Note: Brackets indicate large dome depth.

Approval Ratings

Explosion Proof NEC and CEC Class I Div 1, Grps A, B, C, D;
Class II Grps E, F, G; Class III T4

Flame proof ATEX EEx d[ia] IIC T4 II 2 [1] G

Non-Incendive NEC and CEC Class I Div 2, Grps A, B, C, D;
Class II Grps E, F, G; Class III T4

Intrinsic Safety NEC and CEC Class I Div 1, Grps A, B, C, D;
Class II Grps E, F, G; Class III T4

ATEX EEx ia IIC T4 II 1 G

CE Mark ATEX Directive 94/9/EC

IMETRO IEC 60079-0:2006, IEC 60079-11:1999,
IEC 60079-15:2007