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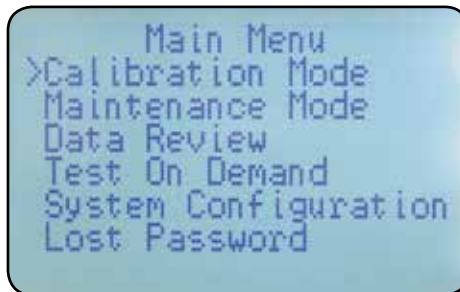
Reduced Cost of Ownership
Shop or field calibrate, then swap sensors under power to minimize maintenance and calibration time. A large backlit alphanumeric display with a non-intrusive user interface allows for configuration, setup, and data review without declassifying a hazardous area. SensAlert *Plus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

Detection at every point.

SENSIDYNE
Industrial Health & Safety Instrumentation

SENSALERT PLUS

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

SensAlert Plus

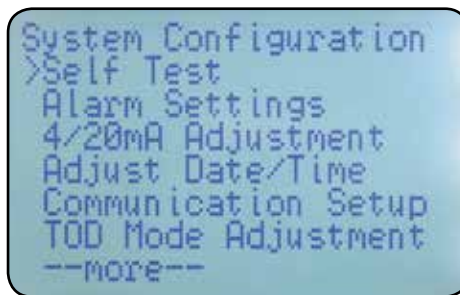0 PPM
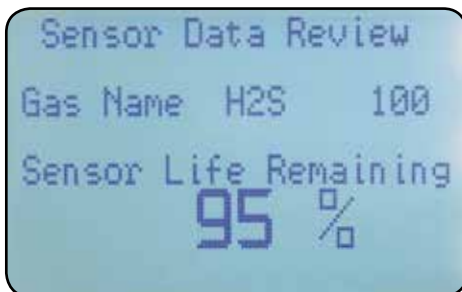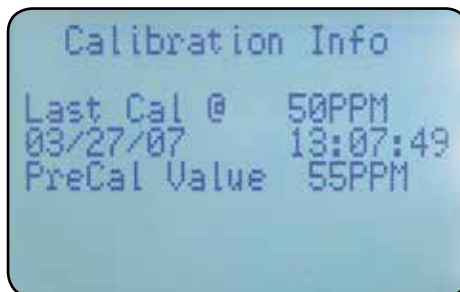
H2S 100

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
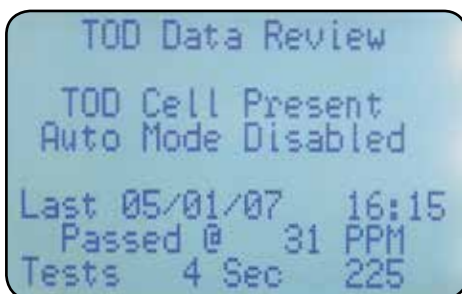
Test-on-Demand™ Data Review

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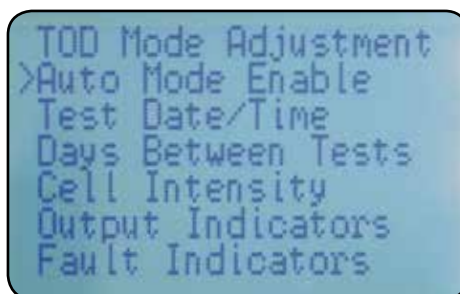
TOD Mode Adjustment

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-volitile memory that allows for auto-recognition and setup once installed into the sensor head.

Detection at every point.

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.

Duct Mount

Remote Mount
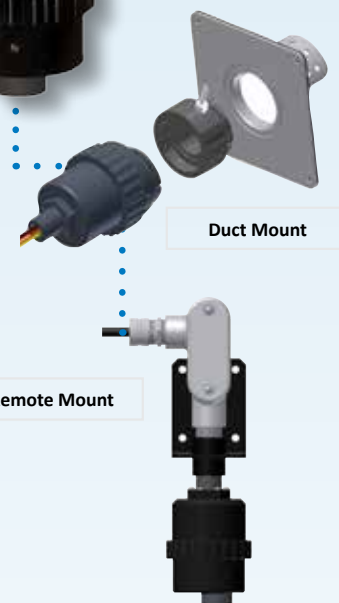
SENSALARM® PLUS

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.

SENSIDYNE®
Industrial Health & Safety Instrumentation

SENSALERT® PLUS

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	✓ [1]
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	✓ [1]
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	✓ [1]

[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