

# SENSALERT<sup>®</sup> ASI



Advanced Safety Integrity – The best solution for gas detection in critical safety applications.



+ Detection at every point.

**SENSIDYNE<sup>®</sup>**  
Industrial Health & Safety Instrumentation

# SENSALERT<sup>®</sup> ASI

**Advanced Safety Integrity – The best solution for gas detection in critical safety applications.**



SensAlert ASI provides enhanced protection and dependability for critical safety applications where personnel, processes, and facilities are at risk. The third-party certified SIL-2 SensAlert ASI offers dependability and versatility while remaining the easiest to install, commission, operate, and maintain.

### **Critical Protection with Global Approval**

SensAlert ASI is third-party certified to IEC61508 Level 2 (SIL-2) for both hardware and software with certification to global hazardous area and performance standards. The Test-on-Demand feature with on-board gas generator provides remote functionality checks with generated gas while Predictive Sensor End-of-Life Indication provides advanced warning of impending sensor failure.

### **Unmatched Application Versatility**

SensAlert ASI is a universal instrument platform for toxic & combustible gas detection and oxygen monitoring. Intrinsically safe or explosion proof installation configurations with options for remote sensors and gassing, duct mount, and sample-draw maximize application versatility. Intrinsically safe or explosion proof installation configurations for remote sensors and gassing, duct mount, and sample-draw maximize application versatility. The sensor head accepts all Plus Series sensor technologies – infrared, catalytic bead, and electro-chemical. Assignable and configurable relays together with communication options provide broad flexibility. The SensAlert ASI I.S. sensor head can be remote mounted up to 100 feet (30m) from the transmitter providing a useful option to position the transmitter in a personnel-accessible location while positioning the sensor closer to potential hazards.

### **Easy to Install, Commission, Operate, and Maintain**

SensAlert ASI is engineered to overcome the challenges users face with traditional gas detectors. The universal instrument platform for all gas and sensor types provides common installation for each point with vertical or horizontal installation options and removable plug-type terminal blocks to simplify wiring and commissioning. Transportable calibration enables sensor calibration and alarm set-up in a safe location, then installing sensors into the intrinsically safe sensor head without declassifying the area or removing power from the instrument. Plug-n-play capability automatically uploads operating parameters and diagnostics from the sensors upon sensor installation. A Sensor Calibration & Exchange Program schedules delivery of factory calibrated sensors to the user's plant or facility for a savings on maintenance and supply costs.



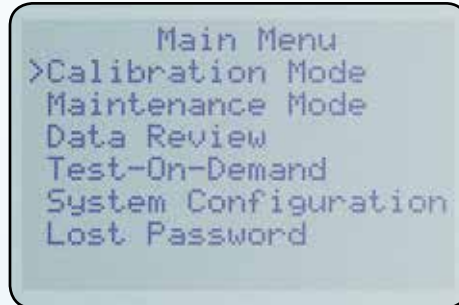
## Non-intrusive User Interface

SensAlert ASI transmitters have a non-intrusive menu driven interface designed for effortless set-up and maintenance. The menu is free from complex icons and symbols and does not require use of remotes or connectors to interface with the transmitter.

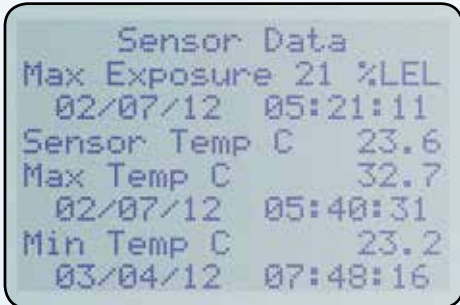
Below are actual menus and system displays.



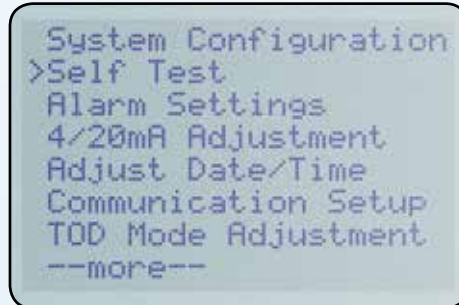
Main Display



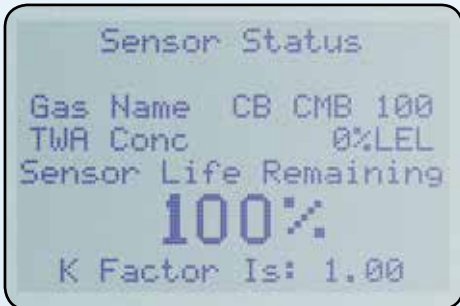
Main Menu



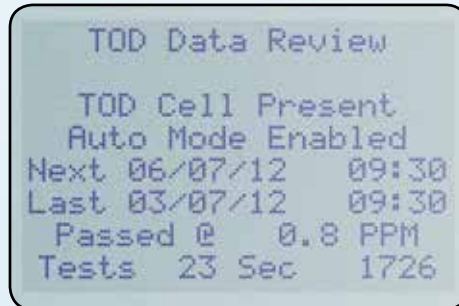
Sensor Data Review



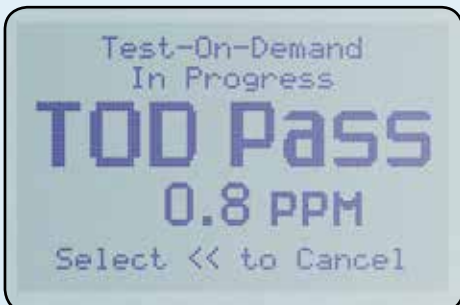
System Configuration Menu



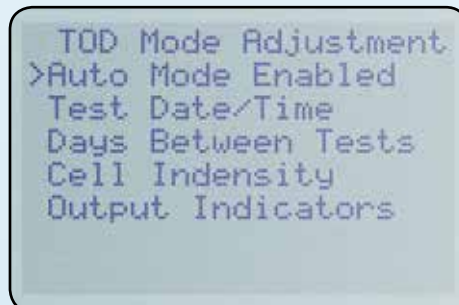
Predictive Sensor Life



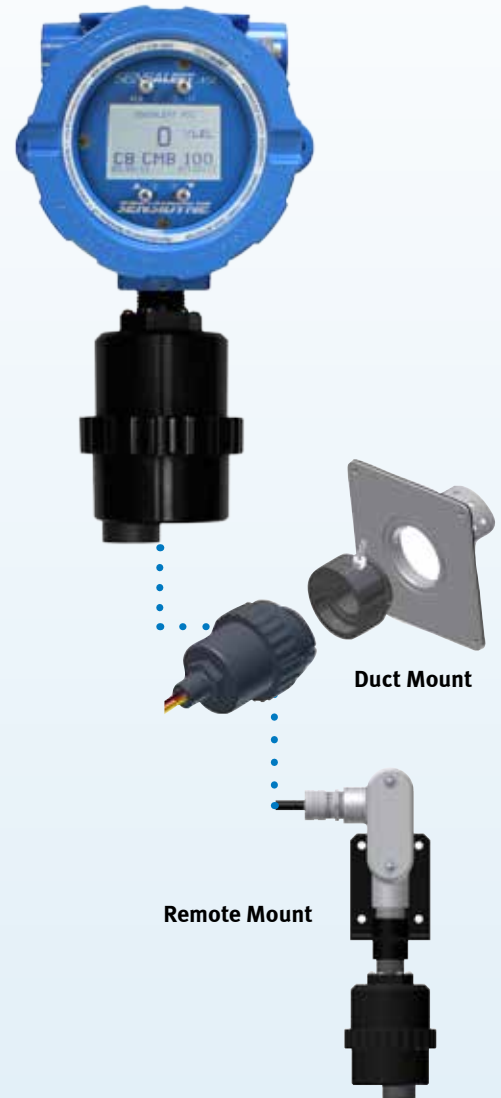
Test-on-Demand Data Review



Live Test-on-Demand Sensor Verification



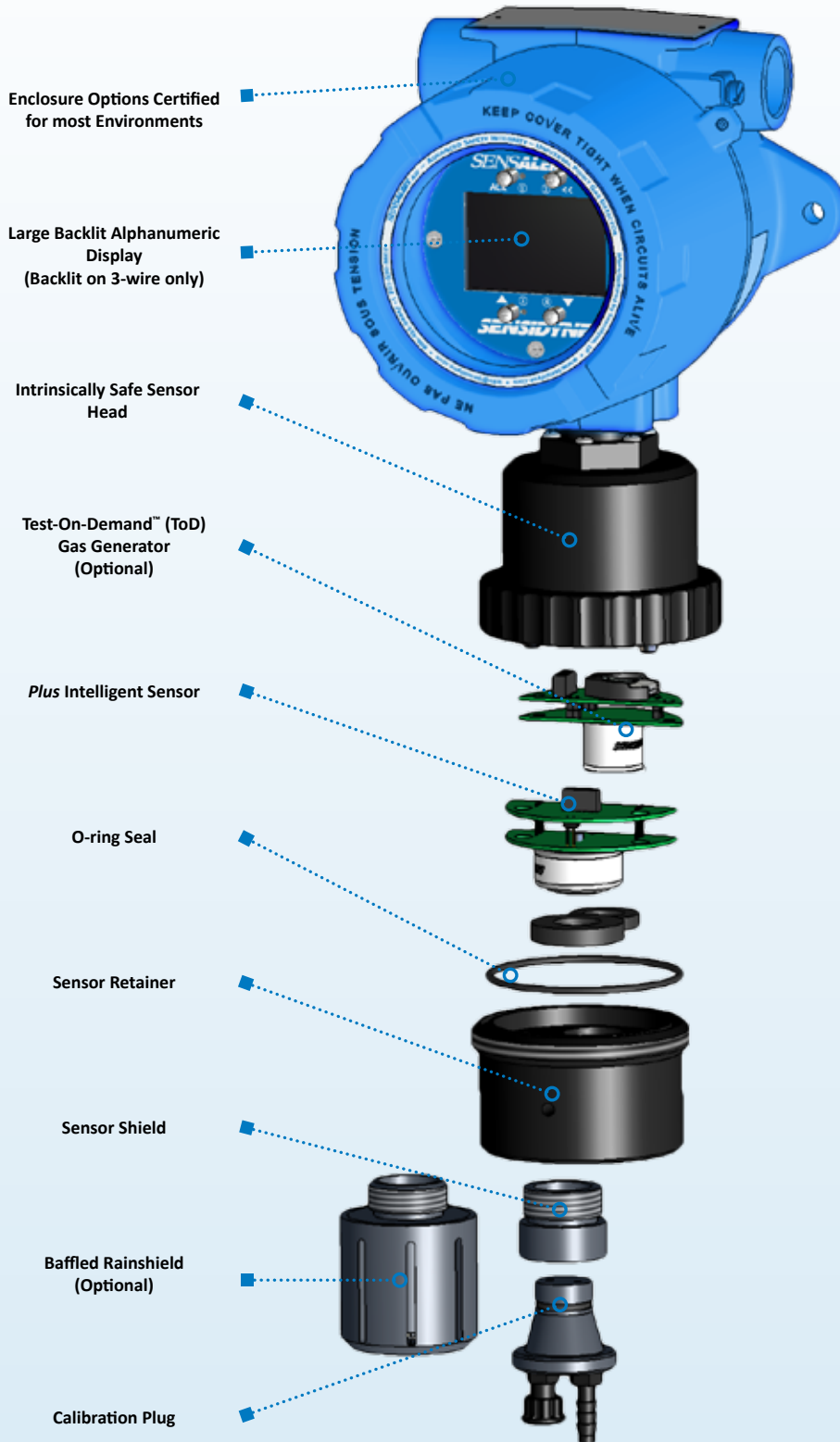
Test-on-Demand Adjustment Menu



*SensAlert ASI provides true installation and application flexibility for local or remote mount sensors to place the sensor closer to potential gas sources.*

# SENSALERT® ASI

Advanced Safety Integrity – The best solution for gas detection in critical safety applications.



Enclosure Options Certified for most Environments

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

Intrinsically Safe Sensor Head

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

Plus Intelligent Sensor

O-ring Seal

Sensor Retainer

Sensor Shield

Baffled Rainshield (Optional)

Calibration Plug

## Technical 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 and load resistance with 24 VDC

#### at transmitter terminals:

3 wire 4-20 mA: ..... 600 Ω maximum  
2-wire 4-20 mA: ..... 350 Ω maximum  
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 4-wire options, RS-485 (Modbus), HART

### Controls

Magnetic Keypad: ..... ACK, << (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

Standard: ..... Blue, Copper-free Cast Aluminum  
Dimensions: ..... 6.7" W x 12.2" H x 6.5" D  
170 mm W x 308 mm H x 165 mm D  
Weight Range: ..... 6-8 lbs / 2.7-3.6 kg  
Long-dome ..... Gray, Copper-free Cast Aluminum  
Physical: ..... 6.3" W x 11.7" H x 7.1" D  
160 mm W x 297 mm H x 180 mm D  
Weight Range: ..... 7-8.7 lbs / 3.2-4.0 kg

### 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 (Enclosed Break) ..... NEC and CEC Class I Div 2, Groups A, B, C, D; Class II Grps E, F, G; Class III T4  
Intrinsic Safety ..... ATEX EEx nC [ia] IIC T4 II 3 [1] G  
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  
IECEx ..... Zone 0: Display Ex d [ia] IIC T4 / Sensor Ex ia IIC T4; Zone 1: Ex d [ai] IIC T4; Zone 2: Ex nC [ia] IIC T4  
UL / IEC ..... IEC 60079-0:2006, IEC 60079-11:1999, IEC 60079-15:2007  
SIL-2 Certified ..... IEC 61508 SIL-2 Parts 1, 2, & 3 Hardware & Software. Fit for use in SIL-2 applications.



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