

# **SENSIDYNE®**

*Industrial Health & Safety Instrumentation*



## *Listed and Certified Gas Detection for Sewage Collection, Treatment Facilities*

**In Compliance with NFPA 820 and  
10 States Standards for Wastewater  
Facilities**

***SENSALERT® ASI***

Pumping Stations • Coarse and Fine Screening • Grit Removal • Scum Handling • Headworks • Digesters • Clarifiers/Thickeners • Odor Control • Underground Tunnels • Scum or Sludge Incineration • Methane Recovery • Co-generation • Denitrification • Effluent Disinfection • Dechlorination • Processes In Buildings • Ammonia Stripping • Hazardous Chemical Storage

**+** Detection at every point.

# SENSALERT<sup>®</sup> ASI

Industry-leading reliability, SensAlert ASI is the ideal fixed-point gas detector for critical safety applications. Flexible configurations and intuitive interface provide maximum application flexibility while being the easiest to install, commission, operate, and maintain.



Available in Aluminum  
or Stainless Steel

## ■ Functional Safety, Unquestionable Reliability

Third-party SIL-2 certification validating long-term reliability. All Sensidyne Gas Sensors are performance tested and certified, including Oxygen and H<sub>2</sub>S. The transmitter will indicate percent remaining life (Alarm at 10%).

## ■ Universal Platform with Intrinsically Safe Sensor Head

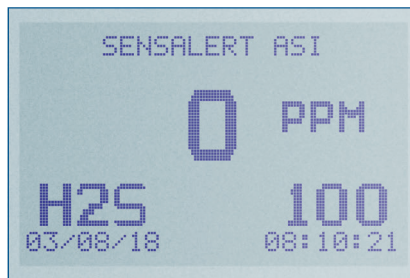
Hot-swap sensors or calibrate locally. Intrinsic Safety enables any sensor maintenance under power. Some users swap *shop calibrated* sensors at routine intervals, eliminating carrying equipment and gases for on-site work. Mount Sensors remotely with remote gassing fitting and tubing, up to 100 feet.

## ■ Intelligent Plus Series Sensors

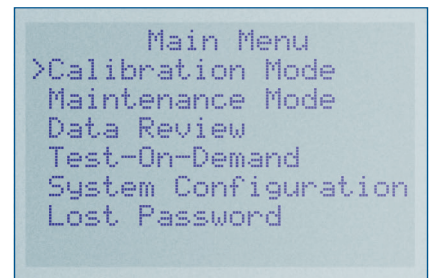
Auto-recognition and set-up from memory including the latest zero/cal data. Sensidyne makes more than 50 intelligent gas sensors, all with non-volatile memory for the application parameters, including alarm levels.

## ■ Flexible Installation or Retrofit

2-wire and 3-wire transmitter models with global performance approvals. Unrestricted installation and operation in hazardous classified areas. Non-intrusive configuration and maintenance Interface (password protected). Analog and digital communication protocols plus optional alarm relays



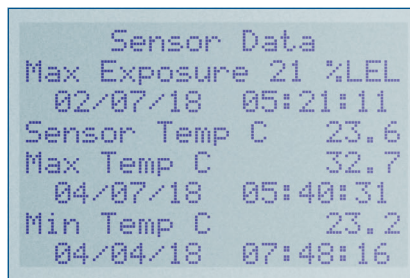
Main Display



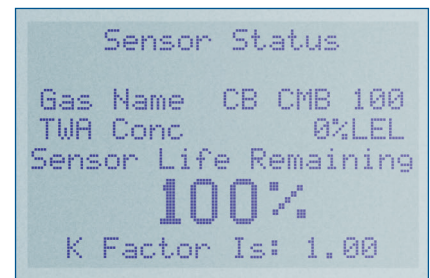
Main Menu



Magnetic Wand for Nonintrusive Calibration



Sensor Data Review



Predictive Sensor Life

**+ Detection at every point.**



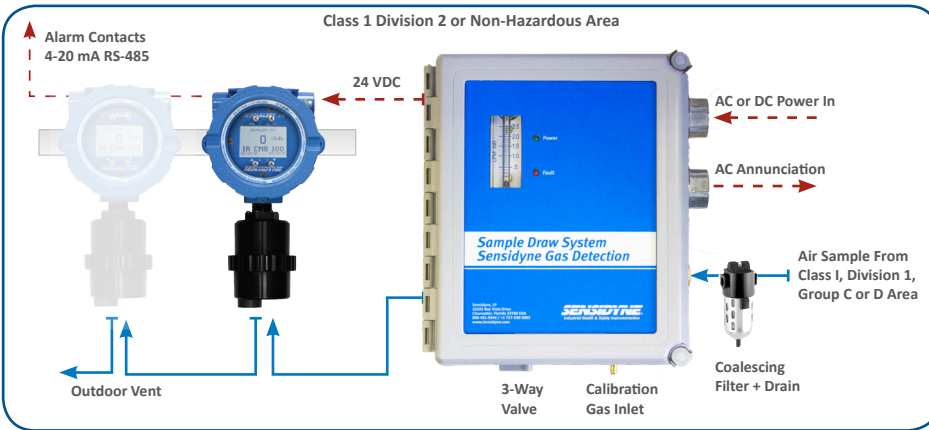
## FM Listed Sample Draw for NFPA 820 Compliance

FM Listing means that the unit has been tested by FM and certified for hazardous (classified) area requirements in addition to being determined suitable for the intended applications. FM maintains the “listing” and informed sources indicate that Sensidyne is the only such approved sample draw system.

Sample Draw includes a sample flow switch (fail-safe) in compliance with ANSI/ISA–12.13.01 and can be pumped or aspirated. A Class I, Division 2 power supply is incorporated which can power up to three (3) transmitters and sensors independently. A gas inlet fitting and a 3-way valve permit the application of calibration standards for routine preventive maintenance. The external flowmeter and internal flow adjustment complete the system.

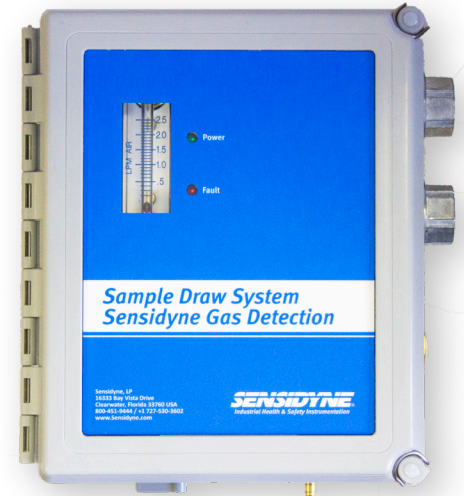
Sample draw and the gas detection are located in an accessible, Division 2 or unclassified location so that personnel *do not have to* enter a hazardous (classified) area as a team to comply with designated confined space rules.

### TYPICAL WET WELL GAS DETECTION SYSTEM WITH SAMPLE DRAW



Gas	Formula	Density	TLV/LEL	Span	Type	Part Number
Ammonia*	NH3	0.6	25 ppm/15%	100 ppm	LI, EC, D	823-0201-21
Ammonia*	NH3	0.6	25 ppm/15%	300 ppm	LI, EC, D	823-0201-41
Carbon Dioxide	CO2	1.5	0.5%, 3% IDLH	5% vol	Infrared	823-0205-53
Carbon Monoxide*	CO	1.0	50 ppm	100 ppm	EC, ND	823-0219-23
Bleach (Use Cl2)	NaClO2	2.5	0.5 ppm	5.0 ppm	LI, EC	823-0202-22
Chlorine*	Cl2	2.5	0.5 ppm	5.0 ppm	LI, EC	823-0202-22
Chlorine*	Cl2	2.5	0.5 ppm	10.0 ppm	LI, EC	823-0202-21
Gasoline	HC Mixture	2 to 4	1.2% vol	100% LEL	Infrared	823-0211-51
Hydrogen Chloride*	HCl	1.3	2.0 ppm	20 ppm	EC, ND	823-0208-22
Hydrogen Sulfide*	H2S	1.2	1.0 ppm	10.0 ppm	EC, ND	823-0206-23
Hydrogen Sulfide*	H2S	1.2	1.0 ppm	50 ppm	EC, ND	823-0206-22
Hydrogen Sulfide*	H2S	1.2	1.0 ppm	100 ppm	EC, ND	823-0206-21
Methanol	CH3OH	1.1	200 ppm/250 ppm STEL	500 ppm	EC, ND	823-0253-21
Methanol	CH3OH	1.1	6.0% vol	100% LEL	Infrared	823-0211-51
Methane	CH4	0.63	5.0% vol	100% LEL	Infrared	823-0211-51
Oxygen	O2	~1.0	19.5%, 18.0% IDLH	25% vol	EC, D	823-0240-22
Sewer Gas	CO2, CH4	~1.0	5.3% vol	100% LEL	Infrared	823-0211-51
Sludge Gas	CH4, CO2	~0.8	5.0% vol	100% LFL	Infrared	823-0211-51
Sulfur Dioxide*	SO2	2.3	2.0 ppm	10.0 ppm	EC, ND	823-0218-22

\* Additional Ranges Available  
LI: Low Interference; EC: Electrochemical; D: Depleting with Gas Exposure; ND: Non-depleting with Exposure  
TLVs from ACGIH or OSHA, IDLH from NIOSH, STEL from ACGIH, LELs from NFPA 325 and NFPA 820



### SAMPLE DRAW SPECIFICATIONS

#### Enclosure

Material ... NEMA 3R Fiberglass wall mount with two 3/4" conduit entries  
Dimensions: ..... 11" (H) X 10" (W) X 6.375" (D)  
(27.9cm X 25.4cm X 16.2cm)  
Weight: ..... 6.6 lbs (3.0 kg)  
Temperature: ..... -4° to 104°F (-20° to 40°C)  
Humidity: ..... 5-95% RH, non-condensing for indoor or outdoor locations.

#### Indicators and Controls

External: ..... Flowmeter, green power LED and red fault/low flow LED  
Internal: ...On-Off switch, voltage out adjust and flow rate adjust  
Outputs: ..... Two 24 VDC power terminals, SPDT fault/low flow relay contact  
Power In/Out: 85–264 VAC, 47–63 Hz, 1.2 Amps; 24 VDC, 1.1 Amp max.

#### Approvals

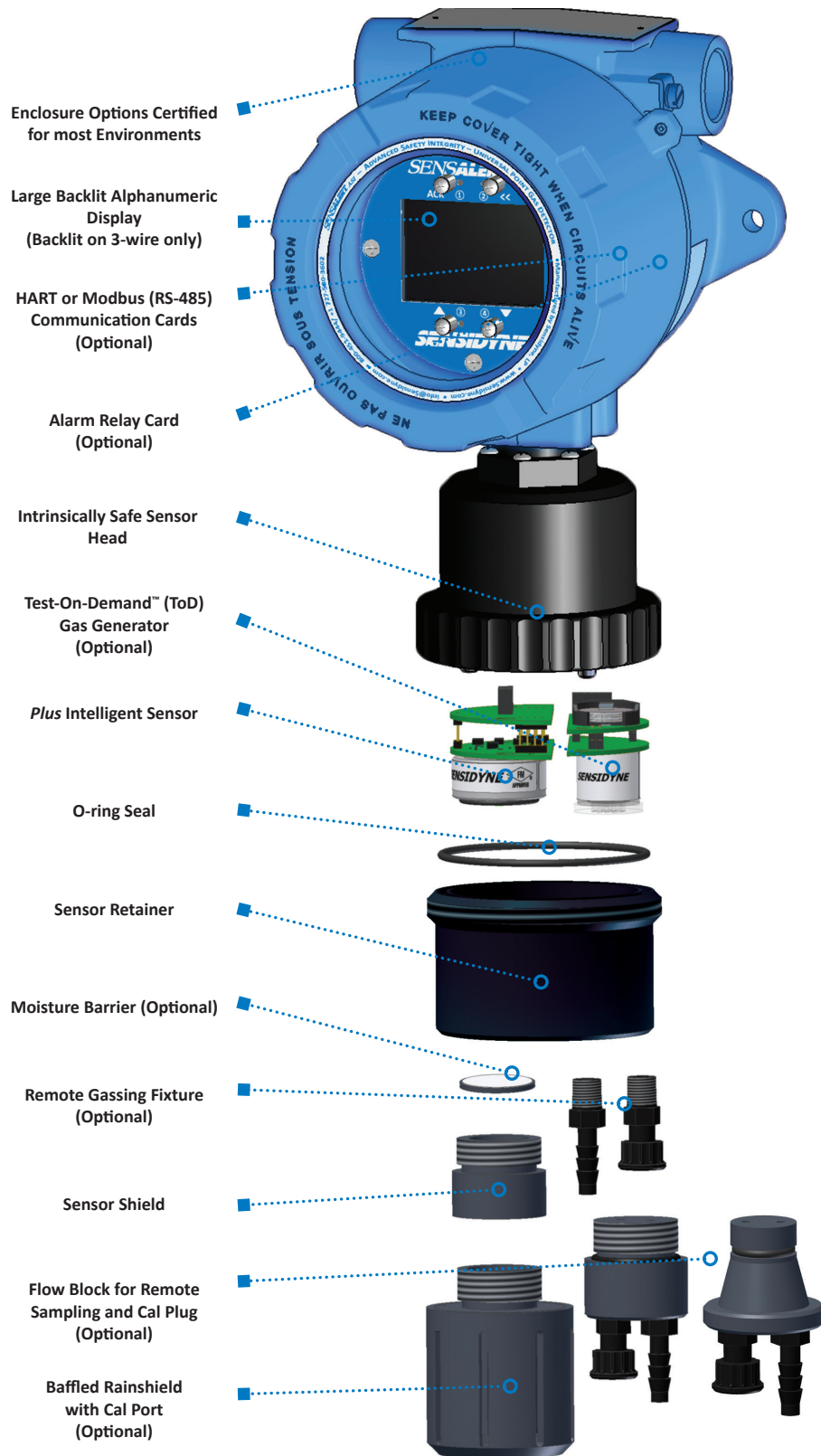
Hazloc ..... FM approved for Class I, Division 2, Groups C & D location to sample from Class I, Division 1, Groups C & D;  
DC Supply: ..... UL60950-1, UL508, UL1310(3), EN60950-1, CE Mark  
Pump: ..... Diaphragm type rated at 1.0 lpm @ 40" H2O at pressurized leak rate of < 1.0 inch wc drop in 5 seconds at 25 inches wc  
Wetted parts: ..... Polycarbonate, Neoprene, Tygon 2075, Silicone Silastic, 304/316ss, Buna-N, Brass, PVC, Glass, Acrylic and User Tubing

#### Cautions

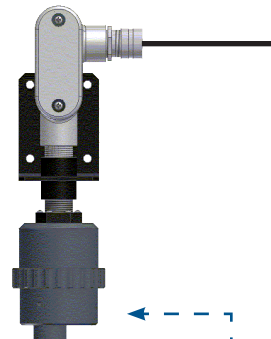
Do not use for Acid gases such as Cl2, ClO2, HCl, HF, HCN, NO2, SO2 and others since the PPM gases are absorbed by the tubing, moisture and various wetted parts slowing or completely eliminating response to the target gas. **Special applications for NH3 may be required.** Do not attempt to use below freezing without heat tracing and a means to keep the system above 32° F (0° C). Excessive condensation will occur when sampling from a higher to a lower temperature.

# SENSALERT<sup>®</sup> ASI

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



## REMOTE SENSOR KITS



Remote Calibration Fixture  
821-0218-01

Remote mounted gas sensors with remote gassing simplify monitoring difficult access areas for Methane or other hazards. Sensors may also be duct mounted in the same manner. The Transmitter is at face level for ease of routine maintenance.

### Part Numbers

821-0207-02 Division 1  
823-0207-01 Division 2  
100 Feet Maximum  
Belden 27326AS  
Cable by others.  
Bracket, Condulet, Seal, and  
Cable Glands Furnished.



Poured Seal  
Required in  
Division 1

SDWWTPRevH121118-400



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