

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 SensAlertPlus 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, Gas Levels, TOD, PSF, TWA

Smart Sensor Technology enables SensAlertPlus 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. SensAlertPlus 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

Transmitters

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 ²	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
3-Wire HD Div2 Large Dome ²	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 ²	820-0206-02

Sensors

NH ₃ 0-100 ppm	823-0201-21
Cl ₂ 0-10 ppm	823-0202-21
HCN 0-20 ppm	823-0203-21
CO ₂ 0-5% Vol. ¹	823-0205-51
H ₂ S 0-100 ppm	823-0206-21
HF 0-10 ppm	823-0207-21
HF 0-20 ppm	823-0207-22
H ₂ 0-1000 ppm	823-0210-21
Cat Bead 0-100% LEL Comb ¹	823-0211-31
Cat Bead 0-100% LEL H Spec. Comb ¹	823-0211-32
IR Combustible 0-100% LEL ¹	823-0211-51
SO ₂ Filtered 0-20 ppm	823-0218-21
CO 0-500 ppm	823-0219-22
O ₂ 0-25% Vol.	823-0240-21

Test-On-Demand and Accessories

TOD Cell for Cl ₂	821-0204-02
TOD Cell for H ₂ 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: ¹ Only for use with 3-wire transmitters. Not approved for Zone 0.
² 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



SensAlert & SensAlert PLUS Intelligent Sensor Data And Gas Information

SensAlert non-volatile memory contains gas name or type, span, measuring units, alarm levels, the last zero and span calibration data, last applied span gas value, linearization table, and temperature compensation table. PLUS memory also has Test on Demand, Predictive Sensor Failure data, factory codes and history.

SensAlert P/N	SensAlert PLUS P/N	TARGET GAS OR VAPOR	GAS DATA ^{1,2}				SENSOR			ToD ⁸	Response Time		ENVIRONMENTAL ⁹		XP Compatibility / Applications	Xmtr	Default Alarms				Chan ^{10,4}
			Formula	Density	TLV-TWA	IDLH	Span ⁴ -Units	Type ^{1,3}	Cell ⁸		T50 ⁶	T90 ⁶	Temp. F	Humidity			XP ⁵	Installation Information	LCD ⁷	Low	
011243-D-3X	823-0201-22 FM	Ammonia	NH ₃	0.6	25 ppm	300 ppm	50 ppm	EC-LI, D ³	n/a	11	70	-4° to 122°	15-90% RH	No	Power (SCR), Chemicals, Refrigeration, Semiconductor, Fertilizer, Heat Treat, Potable Water, Nitric Acid, Explosives. Use GP or Division 2, or install I.S. in Division 1 areas. PLUS Is Not Restricted!	NH3S	15	25	35	Yes	
011243-D-1	823-0201-21 FM	Ammonia	NH ₃	0.6	25 ppm	300 ppm	100 ppm	EC-LI, D	n/a	11	70	-4° to 122°	15-90% RH	No		NH3	25	50	75	Yes	
011243-D-2	823-0201-41	Ammonia	NH ₃	0.6	25 ppm	300 ppm	300 ppm	EC-LI, D	n/a	15	90	-4° to 122°	10-90% RH	No		NH3D	35	75	--	Yes	
011343-D-1	823-0201-42	Ammonia	NH ₃	0.6	25 ppm	300 ppm	500 ppm	EC-LI, D	n/a	20	90	-4° to 122°	10-90% RH	No		NH3S	50	100	--	No	
n/a	823-0249-51	Acetylene IR New Range	C ₂ H ₂	0.9	Asphyxiate	--	50% LEL	Infrared	n/a	10	30	-30° to 131°	5-95% RH	Yes	Production, Packaging, Welding	C2H2	10	20	50	Yes	
121042-D-1	Pending	Arsine	AsH ₃	2.7	0.05 ppm	3 ppm	1.00 ppm	EC, ND ³	n/a	50	90	-4° to 122°	5-95% RH	Yes	Semiconductor & Electronics	ASH3	0.10	0.20	0.50	Yes	
c/f	Pending	Bromine	Br ₂	5.5	3.0 ppm	3 ppm	10 ppm	EC, D	n/a	--	--	-4° to 122°	5-95% RH	No	Semiconductor, Bleaching, Fibers	--	--	--	--	No	
n/a	823-0205-51	Carbon Dioxide IR	CO ₂	1.5	0.50%	3.00%	5.00% Vol.	Infrared	n/a	65	105	-4° to 131°	0-95% RH	Yes	Food, Beverage, Power, n/a for Zone 0.	--	0.5	1.0	3.0	Yes	
195272-D-1	823-0219-23 FM	Carbon Monoxide	CO	0.94	25 ppm	1,200 ppm	100 ppm	EC, ND	n/a	10	30	-4° to 122°	15-90% RH	Yes	Chemical, Refining, Steel, Power (Fossil Fuel), Parking Garages, and Combustion Processes. Caution: LEL is 12.5% by volume. High cross-interference to Hydrogen (except LI version) .	CO1	25	50	75	Yes	
195272-D-4	Pending	Carbon Monoxide	CO	0.94	25 ppm	1,200 ppm	300 ppm	EC, ND	n/a	10	30	-4° to 122°	15-90% RH	Yes		CO	25	75	200	No	
195272-D-2	823-0219-22 FM	Carbon Monoxide	CO	0.94	25 ppm	1,200 ppm	500 ppm	EC, ND	n/a	10	30	-4° to 122°	15-90% RH	Yes		CO	25	75	200	Yes	
195272-D-3X	823-0219-43	Carbon Monoxide	CO	0.94	25 ppm	1,200 ppm	1000 ppm	EC, ND	n/a	10	30	-4° to 122°	5-95% RH	Yes		CO10	25	75	--	No	
198262-D-1	823-0219-41	Carbon Monoxide	CO	0.94	25 ppm	1,200 ppm	100 ppm	EC-LI, ND	n/a	10	30	-4° to 122°	15-90% RH	Yes	CO5	25	50	75	Yes		
198262-D-2	823-0219-42	Carbon Monoxide	CO	0.94	25 ppm	1,200 ppm	500 ppm	EC-LI, ND	n/a	10	30	-4° to 122°	15-90% RH	Yes	CO	25	75	200	Yes		
025142-D-2	823-0202-22 FM	Chlorine	Cl ₂	2.5	0.5 ppm	10 ppm	5.00 ppm	EC, ND	C	10	40	-4° to 122°	15-90% RH	No	WWTP, Chemical, Chlor-Alkali, Pharmaceutical, Semiconductor, and related Industry. Use GP or Division 2, or install I.S. in Division 1 areas. PLUS Is Not Restricted!	CL25	0.50	1.00	1.50	Yes	
025142-D-1	823-0202-21 FM	Chlorine	Cl ₂	2.5	0.5 ppm	10 ppm	10.0 ppm	EC, ND	C	10	40	-4° to 122°	15-90% RH	No		CL2	0.5	1.0	1.5	Yes	
n/a	823-0202-23	Chlorine	Cl ₂	2.5	0.5 ppm	10 ppm	20.0 ppm	EC, ND	C	10	30	-4° to 122°	15-95% RH	Yes		--	2	5	10	No	
021232-D-3	Pending	Chlorine	Cl ₂	2.5	0.5 ppm	10 ppm	100 ppm	EC, ND	n/a	18	60	-4° to 122°	5-95% RH	No		CL2	5	10	20	Yes	
021201-D-1	n/a	Chlorine	Cl ₂	2.5	0.5 ppm	10 ppm	10.0 ppm	Refillable EC	n/a	60	120	23° to 113°	5-95% RH	No	CL2	0.50	1.00	1.50	Yes		
391132-D-1	823-0239-41	Chlorine Dioxide	ClO ₂	2.3	0.1 ppm	5 ppm	1.00 ppm	EC, ND	C	20	120	-4° to 122°	15-90% RH	No	Pulp & Paper, Cooling Towers	CLO2	0.10	0.30	0.50	Yes	
111250-D-1	823-0211-31 FM	Combustibles, General	--	--	Asphyxiate	--	100% LEL	Catalytic	n/a	T-60: <12 sec		-40° to 167°	5-95% RH	Yes	All combustibles except H ₂ , ETO & C ₂ H ₂	COMB	10	20	50	Yes	
111253-D-1	823-0211-32	Comb. H ₂ , ETO, Acetylene	--	--	Asphyxiate	--	100% LEL	Catalytic	n/a	T-60: <5 sec		-4° to 122°	5-95% RH	Yes	H ₂ , Acetylene, ETO Only	COMB	10	20	50	Yes	
101236-D-1	823-0210-41	Hydrogen Specific LEL	H ₂	0.07	Asphyxiate	--	100% LEL	EC, ND	n/a	20	70	-4° to 122°	15-90% RH	Yes		H2	10	20	50	Yes	
n/a	823-0211-51 FM	Combustibles IR	Hydrocarbons		Asphyxiate	--	100% LEL	Infrared	n/a	T-60: <12 sec		-13° to 167°	0-99% RH	Yes	All Combustibles - n/a for Zone 0!	CMBA	10	20	50	Yes	
491255-D-1	823-0249-51	Combustibles IR Acetylene	C ₂ H ₂	0.9	2,500 ppm	--	50% LEL	Infrared	n/a	10	30	-4° to 122°	5-95% RH	Yes	Production, Packaging, Welding	C2H2	10	20	50	Yes	
291042-D-1	Pending	Diborane	B ₂ H ₆	2.9	0.1 ppm	15 ppm	1.00 ppm	EC, ND	n/a	45	100	-4° to 122°	5-95% RH	Yes	Semiconductor & Electronics	B2H6	0.1	0.2	0.5	Yes	
c/f	Pending	Dichlorosilane	SiH ₂ Cl ₂	1.3	5 ppm	--	10.0 ppm	EC, ND	n/a	30	90	-4° to 122°	5-95% RH	Yes	Semiconductor & Electronics	DSIH	2.5	5.0	--	No	
452132-D-1	823-0245-21	Ethylene Oxide (ETO)	C ₂ H ₄ O	1.5	1 ppm	800 ppm	10.0 ppm	EC, ND	n/a	15	60	-4° to 104°	15-95% RH	No	Specialty Chemicals, Medical, Plastics	ETO	1	2	3	Yes	
151142-D-1X	823-0215-21	Fluorine	F ₂	1.3	0.1 ppm	25 ppm	10.0 ppm	EC, ND	n/a	10	30	-4° to 122°	5-95% RH	No	Chemicals, Electronics, Lasers, Plastics	F21	1	5	--	No	
151142-D-2X	823-0215-22	Fluorine	F ₂	1.3	0.1 ppm	25 ppm	25.0 ppm	EC, ND	n/a	10	30	-4° to 122°	5-95% RH	No	Chemicals, Electronics, Lasers, Plastics	F22	1	5	--	No	
302042-D-1	Pending	Germane	GeH ₄	2.7	0.2 ppm	--	2.00 ppm	EC, ND	n/a	10	30	-4° to 122°	5-95% RH	Yes	Semiconductor & Electronics	GEH4	0.20	0.50	1.00	Yes	

Survey potential interfering gases or vapors for the application and check the Sensor Data Sheet for known interferences.

¹ Terms: EC = Electrochemical, LI = Low Interference, D = Depleting Sensor, ND = Non-Depleting Sensor.
 Refillable means membrane and electrolyte are renewable, ≤: Less than or equal to, ≥: Greater than or equal to, n/a: not available.
² Gas Data are from ACGIH (TLV-TWA) and NIOSH (IDLH) but may be noted as Ceiling or STEL. The user is responsible for verifying table data.
³ D: Sensor life is directly proportional to target gas exposure. ND: Sensor is not depleted by exposure to target gas and life is expected to be more than 2 years.
⁴ Lower Detection Limit is 3% of Span plus one digit (SensAlert) and 3% of span (PLUS). Number of zeros indicates sensor and display resolution.
⁵ Not applicable for PLUS! No: Gas does not pass through SensAlert flame arrestor, Use GP, Division 2 or install I.S. for Division 1.
⁶ Nominal sensor response time which slows with age, flame arrestor or filters. PLUS times are given.
⁷ LCD is the SensAlert gas type or name displayed. PLUS spells out the gas name or type.
⁸ ToD™ is the Test-on-Demand cell option and type designation for SensAlert PLUS only.
⁹ PLUS Temperature / Humidity specs given. Short term (hours) temperature / humidity excursions acceptable.
¹⁰ No means that the 4-Channel Controller will not recognize the sensor.

SensAlert & SensAlert PLUS Intelligent Sensor Data And Gas Information

SensAlert non-volatile memory contains gas name or type, span, measuring units, alarm levels, the last zero and span calibration data, last applied span gas value, linearization table, and temperature compensation table. **PLUS** memory also has Test on Demand, Predictive Sensor Failure data, factory codes and history.

SensAlert P/N	SensAlert PLUS P/N	TARGET GAS OR VAPOR	GAS DATA ^{1,2}				SENSOR		ToD Cell ⁸	Response Time		ENVIRONMENTAL ⁹		XP Compatibility / Applications		Default Alarms			Chan	
			Formula	Density	TLV-TWA	IDLH	Span ⁴ -Units	Type ^{1,3}		T50 ⁶	T90 ⁶	Temp. F	Humidity	XP ⁵	Installation Information	Xmtr LCD ⁷	Low	High		Hi-Hi
481042-D-1X	Pending	Hydrazine	N ₂ H ₄	1.1	0.01 ppm	50 ppm	1.00 ppm	EC, ND	n/a	30	120	-4° to 122°	5-95% RH	No	Chemicals, Fibers, Fuel, O ₂ Scavenger	N2H4	0.1	0.5	--	No
101332-D-1	823-0210-21 FM	Hydrogen Specific PPM	H ₂	0.07	Asphixiate	--	1000 ppm	EC, ND	n/a	20	70	-4° to 122°	15-90% RH	Yes	Power, Chemicals, Refineries, Industrial Gases, Battery Rooms, Research Labs	H2	100	200	500	Yes
101236-D-1	823-0210-41	Hydrogen Specific LEL	H ₂	0.07	Asphixiate	--	100% LEL	EC, ND	n/a	40	120	-4° to 122°	15-90% RH	Yes	Industrial Gases, Battery Rooms, Research Labs	COMB	10	20	50	Yes
Use HCl	Use HCl	Hydrogen Bromide	HBr	2.8	3 ppm	30 ppm	10.0 ppm	EC, ND	n/a	45	120	-4° to 122°	5-95% RH	No	Chemicals, Electronics, Plastics	HBR	3.0	10.0	--	No
083142-D-3X	823-0208-21 FM	Hydrogen Chloride	HCl	1.3	2 ppm	50 ppm	10.0 ppm	EC, ND	S	15	30	-4° to 122°	15-90% RH	No	Petroleum, Chemicals, Metals Fabrication, Pharmaceutical, Semiconductor, Rubber, Plastics, Fibers, Research. Use GP or Division 2, or install I.S. in Division 1 areas.	HCL1	5.0	10.0	--	No
083142-D-1	823-0208-22 FM	Hydrogen Chloride	HCl	1.3	2 ppm	50 ppm	20.0 ppm	EC, ND	S	15	30	-4° to 122°	15-90% RH	No		HCL	5.0	10.0	15.0	Yes
081201-D-1	n/a	Hydrogen Chloride	HCl	1.3	2 ppm	50 ppm	10.0 ppm	Refillable EC	n/a	40	180	23° to 104°	5-95% RH	No	PLUS Is Not Restricted	HCL	5.0	20.0	--	No
081232-D-2	Pending	Hydrogen Chloride	HCl	1.3	2 ppm	50 ppm	100 ppm	EC, ND	n/a	36	120	-4° to 122°	5-95% RH	No		HCL	10.0	20.0	30.0	Yes
033142-D-1	823-0203-21	Hydrogen Cyanide	HCN	0.9	4.7 ppm	50 ppm	20.0 ppm	EC, D ³	n/a	10	30	-4° to 122°	15-95% RH	No	Polymers, Chemicals, Mining, Metal Working, Plating, Pesticides.	HCN	4.0	6.0	--	Yes
031232-D-2X	Pending	Hydrogen Cyanide	HCN	0.9	4.7 ppm	50 ppm	100 ppm	EC, D	n/a	45	150	-4° to 122°	5-95% RH	No		HCN1	4	20	--	No
071142-D-1	823-0207-21 FM	Hydrogen Fluoride	HF	0.7	0.5 ppm	30 ppm	10.0 ppm	EC, D	C	15	45	-4° to 122°	15-90% RH	No	Alkylation, Polymers, Metals, Aluminum, Nuclear Fuels, Halocarbons, and Water Fluoridation	HF	2.0	3.0	7.0	Yes
071142-D-2X	823-0207-22 FM	Hydrogen Fluoride	HF	0.7	0.5 ppm	30 ppm	20.0 ppm	EC, D	C	15	45	-4° to 122°	15-90% RH	No		HF	2.0	3.0	--	No
071201-D-1	n/a	Hydrogen Fluoride	HF	0.7	0.5 ppm	30 ppm	10.0 ppm	Refillable EC	n/a	60	300	23° to 104°	5-95% RH	No		HF	2.0	3.0	7.0	Yes
062272-D-1	823-0206-22 FM	Hydrogen Sulfide	H ₂ S	1.2	10 ppm	100 ppm	50 ppm	EC, ND	S	10	30	-40° to 122°	15-90% RH	Yes	Hydrocarbon, WWTP, Mining	H2S	10	15	30	Yes
062272-D-2	823-0206-21 FM	Hydrogen Sulfide	H ₂ S	1.2	10 ppm	100 ppm	100 ppm	EC, ND	S	10	30	-40° to 122°	15-90% RH	Yes	Hydrocarbon, WWTP, Mining	H2S	10	15	30	Yes
421232-D-1	823-0242-21	Nitric Oxide	NO	1	25 ppm	100 ppm	100 ppm	EC, ND	n/a	5	15	-4° to 122°	5-95% RH	Yes	Research, Ammonia, Fibers, Nicotine	NO	25	50	75	Yes
211232-D-1	823-0221-21	Nitrogen Dioxide	NO ₂	1.6	3 ppm	20 ppm	10.0 ppm	EC, ND	n/a	15	40	-4° to 122°	15-90% RH	No	Research, Fertilizers, Explosives, Acids	NO2	3.0	5.0	9.0	Yes
403162-D-1	823-0240-41 FM	Oxygen	O ₂	1.1	≤19.5%	<18%	25.0%Vol	EC, D	n/a	4	10	-4° to 122°	15-90% RH	Yes	Oxygen Deficiency/Enrichment	O2	19.5	23.5	18.0	Yes
403162-D-2X	n/a	Oxygen, Process	O ₂	1.1	--	--	10.0%Vol	EC, D	n/a	4	10	-4° to 122°	5-95% RH	Yes	Process Monitoring	O2	Fails to zero		No	
403162-D-3X	n/a	Oxygen, Process	O ₂	1.1	--	--	25.0%Vol	EC, D	n/a	4	10	-4° to 122°	5-95% RH	Yes	Process Monitoring	O2	Fails to zero		No	
403172-D-3	n/a	Oxygen, Membrane	O ₂	1.1	≤19.5%	<18%	25.0%Vol	EC, D	n/a	--	<10	50° to 104°	5-95% RH	Yes	Not affected by Helium or CO ₂	O2	19.5	23.5	18	Yes
432032-D-1	823-0243-22	Ozone (also PLUS 1.00 ppm)	O ₃	1.6	0.1 ppm	5 ppm	2.00 ppm	EC, ND	n/a	45	150	-4° to 122°	5-95% RH	No	Disinfectant WWTP Pharm. Foods	O3	0.10	0.20	0.50	Yes
471042-D-1X	823-0247-21	Phosgene	COCl ₂	3.4	0.1 ppm	2 ppm	1.00 ppm	EC, ND	n/a	60	120	-4° to 122°	15-90% RH	No	Organic Chemicals, Warfare	COCL	0.1	0.5	--	No
131042-D-1	Pending	Phosphine	PH ₃	1.2	0.3 ppm	50 ppm	1.00 ppm	EC, ND	n/a	10	30	-4° to 122°	5-95% RH	Yes	Semiconductor & Electronics	PH3	0.15	0.30	0.60	Yes
145142-D-1	Pending	Silane	SiH ₄	1.3	5 ppm	--	10.0 ppm	EC, ND	n/a	30	90	-4° to 122°	5-95% RH	Yes	Semiconductor & Electronics	SIH4	2.5	5.0	7.5	Yes
462273-D-1X	Pending	Styrene	C ₈ H ₈	3.6	20 ppm	700 ppm	200 ppm	EC, ND	n/a	25	75	-4° to 122°	5-95% RH	No	Chemicals, Fiberglass Industry	STR2	50	100	--	No
n/a	823-0218-22 FM	Sulfur Dioxide, H ₂ S Filtered	SO ₂	2.3	2 ppm	100 ppm	10.0 ppm	EC, ND	n/a	10	15	-4° to 122°	15-90% RH	No	Food & Beverage, Bleaching, Acid Plants, Chemicals, Refining. Use GP or Division 2, or install I.S. in Division 1 areas.	SO2	2.0	4.0	--	No
182132-D-3X	n/a	Sulfur Dioxide	SO ₂	2.3	2 ppm	100 ppm	10.0 ppm	EC, ND	n/a	10	15	-4° to 122°	5-95% RH	No		SO2	2.0	4.0	8.0	Yes
182132-D-1	n/a	Sulfur Dioxide	SO ₂	2.3	2 ppm	100 ppm	20.0 ppm	EC, ND	n/a	5	15	-4° to 122°	5-95% RH	No	PLUS Is Not Restricted in any way!	SO2	2.0	4.0	8.0	Yes
181233-D-1	823-0218-21 FM	Sulfur Dioxide, H ₂ S Filtered	SO ₂	2.3	2 ppm	100 ppm	20.0 ppm	EC, ND	n/a	10	15	-4° to 122°	15-90% RH	No		SO2F	2	10	--	No
181233-D-2	Pending	Sulfur Dioxide, H ₂ S Filtered	SO ₂	2.3	2 ppm	100 ppm	100 ppm	EC, ND	n/a	5	20	-4° to 122°	15-90% RH	No	PLUS Is Not Restricted in any way!	SO2F	2	10	--	No
181201-D-1X	n/a	Sulfur Dioxide	SO ₂	2.3	2 ppm	100 ppm	10.0 ppm	Refillable EC	n/a	40	240	23° to 104°	15-90% RH	No		SO2	2.0	4.0	--	Yes

Survey potential interfering gases or vapors for the application and check the Sensor Data Sheet for known interferences.

¹ Terms: EC = Electrochemical, LI = Low Interference, D = Depleting Sensor, ND = Non-Depleting Sensor, Refillable means membrane and electrolyte are renewable, ≤: Less than or equal to, ≥: Greater than or equal to, n/a: not available.
² Gas Data are from ACGIH (TLV-TWA) and NIOSH (IDLH) but may be noted as Ceiling or STEL. The user is responsible for verifying table data.
³ D: Sensor life is directly proportional to target gas exposure. ND: Sensor is not depleted by exposure to target gas and life is expected to be more than 2 years.
⁴ Lower Detection Limit is 3% of Span plus one digit (SensAlert) and 3% of span (PLUS). Number of zeros indicates sensor and display resolution.
⁵ Not applicable for PLUS! No: Gas does not pass through SensAlert flame arrestor, Use GP, Division 2 or install I.S. for Division 1.
⁶ Nominal sensor response time which slows with age, flame arrestor or filters. PLUS times are given.
⁷ LCD is the SensAlert gas type or name displayed. PLUS spells out the gas name or type.
⁸ ToD™ is the Test-on-Demand cell option and type designation for SensAlert PLUS only.
⁹ PLUS Temperature / Humidity specs given. Short term (hours) temperature / humidity excursions acceptable.
¹⁰ No means that the 4-Channel Controller will not recognize the sensor.