

SENSAIR *Sensor Data Sheet*

Catalytic Bead Combustible, 100%LEL (823-1020-11-R)

Minimum Detectable Concentration	1 %LEL	Minimum Detectable Change
Repeatability	3% of Full Scale	
Accuracy	10% of Indication or 5% of Full Scale, whichever is less	
Zero Drift	1 %LEL methane/month	
Span Drift	< 1% of signal/month	
Response Time (Rise)	T90 < 5 sec, T50 < 4 sec	
Recovery Time (Fall)	T10 < 30 sec	
Operating Temperature Range	-20 to 75 C (-4 to 167 F)	
Storage Temperature Range	-40 to 50 C (-40 to 122 F)	
Operating Humidity Range	0 - 95% RH, non-condensing	
Operating Pressure Range	Atmospheric \pm 10%	
Sensor Life (Expected)	Standard: 3 - 5 years Clean Air	
Calibration Frequency	Monthly (recommended)	
Calibration Concentration	30 - 80 %LEL of combustible substance	
Calibration Flowrate	0.5 LPM, recommended	
Oxygen Requirement	10% by volume, minimum	

User Adjustable Parameters

Calibration Gas Concentration	10 to 100 %LEL
K-factor	0.5 to 3.0
Sensor Voltage Adjust	1.8 to 3.0 Volts

Catalytic Bead Sensor Calibration and Spanning

Ideally, a combustible gas sensor should be calibrated with its target gas. In applications where methane will not be present, Sensidyne recommends the use of propane as a calibration gas or as span gas in conjunction with propane/target gas specific selectivity factors. It is recognized that many combustible gases are not readily available for calibration – in these instances it is an accepted industry practice to use a standard gas, typically methane or propane, in conjunction with selectivity factors (also known as k-factors) for setting a sensor's span. Catalytic bead combustible sensor characteristics govern the recommendations for when to use methane or propane for calibration or surrogate span purposes. Catalytic bead sensors can lose sensitivity due to various factors with sensor aging, overexposure, poisoning, or inhibition as typical factors. Due to methane gas combustion characteristics, catalytic bead sensors will lose sensitivity to methane prior to losing sensitivity for other gases. In applications where methane is the target gas or methane may be present with other gases, sensor calibration or surrogate spanning must be performed using methane gas with selectivity factors specific to methane and the target gas. In these applications, spanning with a gas other than methane can create unsafe conditions. In applications where methane will not be present, spanning with methane could result in loss of accuracy for the target gases as the sensor loses sensitivity to methane and retains (higher) sensitivity to the target gas.

Substance	Methane K-Factor	Propane K-Factor
Methane	1.00	0.56
Acetaldehyde	1.7	1.0
Acetic Acid	1.9	1.1
Acetic Anhydride	2.2	1.2
Acetone	1.9	1.1
Acetylene	1.8	1.0
Allyl Alcohol	2.0	1.1
Ammonia	0.8	0.4
n-Amyl Alcohol	3.0	1.7
Aniline	2.6	1.5
Benzene	2.4	1.3
Biphenyl	4.0	2.2
1,3-Butadiene	1.8	1.0
n-Butane	1.7	1.0
1-Butane	2.2	1.2
cis-2-Butane	2.1	1.2
trans-2-Butane	2.0	1.1
n-Butyl Alcohol	2.9	1.6
tert-Butyl Alcohol	1.4	0.8
n-Butyl Benzene	3.2	1.8
n-Butyric Acid	2.6	1.5
Carbon Monoxide	1.3	0.7
Cyanogen	1.1	0.6
Cyclohexane	2.4	1.3
Cyclopropane	1.6	0.9
n-Decane	3.0	1.7
Diethylamine	2.0	1.1
Dimethylamine	1.7	1.0
2,3-Dimethyl	2.5	1.4
2,2-Dimethyl	2.5	1.4
1,4-Dioxane	2.2	1.2
Ethane	1.5	0.8
Ethyl Acetate	2	1.1
Ethyl Alcohol	1.4	0.8
Ethylamine	1.9	1.1
Ethylbenzene	2.8	1.6
Ethylcyclopentane	2.5	1.4
Ethylene	1.4	0.8
Ethylene Oxide	1.9	1.1
Ethyl Ether	2.2	1.2
Ethyl Formate	2.3	1.3
n-Heptane	2.6	1.5

n-Hexane	2.7	1.5
Hydrazine	2.2	1.2
Hydrogen	1.3	0.7
Hydrogen Cyanide	2.1	1.2
Isobutane	1.9	1.1
Isobutyl Alcohol	1.9	1.1
Isobutyl Benzene	3.1	1.7
Isopentane	2.2	1.2
Isopropyl Ether	2.3	1.3
Methyl Acetate	2	1.1
Methyl Alcohol	1.2	0.7
Methylamine	1.3	0.7
Methylcyclohexane	2.3	1.3
Methyl Ether	1.6	0.9
Methyl Ethyl Ether	2.3	1.3
Methyl Ethyl Ketone	2.4	1.3
Methyl Formate	1.5	0.8
Methyl Propionate	2	1.1
Methyl Propyl	2.4	1.3
Napthalene	2.9	1.6
Nitromethane	13.7	7.7
-Nonane	3.2	1.8
n-Octane	2.7	1.5
n-Pentane	2.2	1.2
Propane	1.8	1.0
n-Propyl Alcohol	2.1	1.2
n-Propylamine	2.1	1.2
Propylene	1.9	1.1
Propylene Oxide	2.2	1.2
Propyne	2.4	1.3
Toluene	2.5	1.4
Triethylamine	2.5	1.4
Trimehtylamine	2.1	1.2
Vinyl Ethyl Ether	2.4	1.3
m-Xylene	2.6	1.5
o-Xylene	2.8	1.6
p-Xylene	2.6	1.5

SENSAIR Sensor Data Sheet

Oxygen, O₂, 0-25% Volume (823-1001-11-R)

Minimum Indicated Concentration	0.8% O ₂
Minimum Indicated Conc. Change	0.1% O ₂
Accuracy	±0.1% O ₂ @ 20.9% O ₂ (when calibrated with 20.9% O ₂)
Accuracy	±0.2% O ₂ @ 18% O ₂
Span Drift.....	< 5% loss/year (typical)
PolyScreen ² Response Time (Fall)	T _{18.0} Fall ¹ < 4 sec
SMD ² Response Time (Fall)	T _{18.0} Fall ¹ < 8 sec
Operating Temperature Range.....	-20 to 50°C (-4 to 122°F)
Storage Temperature Range	3 to 20°C (37 to 68°F)
Operating Humidity Range	15 - 90% RH, non-condensing
Operating Pressure Range.....	Ambient Atmosphere, ±1psi
Sensor Life (Expected)	Standard: 2 years from ship date, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	20.9 % V O ₂
Calibration Flowrate.....	0.5 LPM (recommended)
Oxygen Requirement.....	1% by vol. minimum, <i>sensors should not be stored with no oxygen present.</i>

¹ When calibrated at 20.9% O₂ and suddenly exposed to 100%V N₂, T_{18.0} is the time it takes the sensor to fall to 18.0% O₂.

² Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Note: These are capillary style oxygen sensors optimized for use on oxygen/nitrogen atmospheres. Gases that alter the ambient gas density will produce erroneous oxygen readings, e.g. 5% helium in the ambient will produce a false high oxygen reading. This is a gas density/diffusion effect rather than a chemical effect. These sensors are not recommended for atmospheres other than oxygen/nitrogen.

Special Calibration Considerations:

- **Zeroing The Sensor**
Ambient Oxygen sensors do not normally require zeroing and cannot be zeroed through the Calibration menu.
- **Span Calibration**
It is recommended that this sensor be calibrated at 20.9 %vol. There are no special calibration considerations for this sensor.

SENSAIR Sensor Data Sheet

Hydrogen Sulfide, H₂S, 50ppm (823-1002-11-R)

Minimum Indicated Concentration 2 ppm
 Repeatability 2%, Successive exposure
 Accuracy 10% of Indication
 Span Drift..... < 10% change/year (typical)
 PolyScreen¹ Response Time (Rise)..... T₉₀ < 40 sec, T₅₀ < 15 sec
 PolyScreen¹ Recovery Time (Fall) T₁₀ < 60 sec
 SMD¹ Response Time (Rise) T₉₀ < 120 sec, T₅₀ < 30 sec
 SMD¹ Recovery Time (Fall)..... T₁₀ < 120 sec
 Operating Temperature Range -40 to 50°C (-40 to 122°F)
 Storage Temperature Range..... 3 to 20°C (37 to 68°F)
 Operating Humidity Range 15 - 95% RH, non-condensing
 Operating Pressure Range..... Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Standard: 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate..... 0.5 LPM (recommended)
 Oxygen Requirement..... 1% by volume, minimum

¹ Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Ammonia	100 ppm	None
Carbon Monoxide	50 ppm	+1 ppm
Chlorine	10 ppm	-1 ppm
Ethylene	100 ppm	None
Hydrogen	700 ppm	+1 ppm
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	10 ppm	None
Nitric Oxide	35 ppm	None
Nitrogen Dioxide	5 ppm	-1 ppm
Sulfur Dioxide	5 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 25 ppm H₂S. There are no special calibration considerations for this sensor.

SENSAIR Sensor Data Sheet

Carbon Monoxide, CO, 100ppm (823-1007-11-R)

Minimum Indicated Concentration 3 ppm
 Repeatability 2%, Successive exposure
 Accuracy 5% of Indication
 Span Drift..... < 5% change/year (typical)
 PolyScreen¹ Response Time (Rise) T₉₀ < 60 sec, T₅₀ < 20 sec
 PolyScreen¹ Recovery Time (Fall) T₁₀ < 70 sec
 SMD¹ Response Time (Rise) T₉₀ < 125 sec, T₅₀ < 35 sec
 SMD¹ Recovery Time (Fall)..... T₁₀ < 130 sec
 Operating Temperature Range -20 to 50°C (-4 to 122°F)
 Storage Temperature Range..... 3 to 20°C (37 to 68°F)
 Operating Humidity Range 15 - 95% RH, non-condensing
 Operating Pressure Range..... Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Standard: 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate..... 0.5 LPM (recommended)
 Oxygen Requirement..... 1% by volume, minimum

¹ Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Chlorine	1 ppm	None
Ethylene	1.3 ppm	+1 ppm
Hydrogen	1.7 ppm	+1 ppm
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	5 ppm	+1 ppm
Hydrogen Sulfide	50 ppm	+1 ppm
Nitric Oxide	5 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	-1 ppm
Sulfur Dioxide	5 ppm	None

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 50 ppm. There are no special calibration considerations for this sensor.

SENSAIR Sensor Data Sheet

Hydrogen Sulfide, H₂S, 100ppm (823-1003-11-R)

- Minimum Indicated Concentration 3 ppm
- Repeatability 2%, Successive exposure
- Accuracy 5% of Indication
- Span Drift..... < 10% change/year (typical)
- PolyScreen¹ Response Time (Rise)..... T₉₀ < 40 sec, T₅₀ < 15 sec
- PolyScreen¹ Recovery Time (Fall) T₁₀ < 60 sec
- SMD¹ Response Time (Rise) T₉₀ < 125 sec, T₅₀ < 30 sec
- SMD¹ Recovery Time (Fall)..... T₁₀ < 130 sec
- Operating Temperature Range -40 to 50°C (-40 to 122°F)
- Storage Temperature Range..... 3 to 20°C (37 to 68°F)
- Operating Humidity Range 15 - 95% RH, non-condensing
- Operating Pressure Range..... Ambient Atmospheric ±1.5psi
- Sensor Life (Expected) Standard: 3 years, normal service
- Calibration Frequency Monthly (recommended)
- Calibration Concentration 30 - 80 % of full scale
- Calibration Flowrate..... 0.5 LPM (recommended)
- Oxygen Requirement..... 1% by volume, minimum

¹ Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Ammonia	100 ppm	None
Carbon Monoxide	50 ppm	+1 ppm
Chlorine	10 ppm	-1 ppm
Ethylene	100 ppm	None
Hydrogen	700 ppm	+1 ppm
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	10 ppm	None
Nitric Oxide	35 ppm	None
Nitrogen Dioxide	5 ppm	-1 ppm
Sulfur Dioxide	5 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**
There are no special zeroing considerations for this sensor.
- **Span Calibration**
It is recommended that this sensor be calibrated at the half-scale concentration of 50 ppm H₂S. There are no special calibration considerations for this sensor.

SENSAIR Sensor Data Sheet

Carbon Monoxide, CO, 250ppm (823-1023-11-R)

Minimum Indicated Concentration 8 ppm
 Repeatability 2%, Successive exposure
 Accuracy 5% of Indication
 Span Drift < 5% change/year (typical)
 PolyScreen¹ Response Time (Rise) T₉₀ < 25 sec, T₅₀ < 15 sec
 PolyScreen¹ Recovery Time (Fall) T₁₀ < 70 sec
 SMD¹ Response Time (Rise) T₉₀ < 100 sec, T₅₀ < 30 sec
 SMD¹ Recovery Time (Fall) T₁₀ < 120 sec
 Operating Temperature Range -20 to 50°C (-4 to 122°F)
 Storage Temperature Range 3 to 20°C (37 to 68°F)
 Operating Humidity Range 15 - 95% RH, non-condensing
 Operating Pressure Range Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Standard: 3 year, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate 0.5 LPM (recommended)
 Oxygen Requirement 1% by volume, minimum

¹ Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Chlorine	1 ppm	None
Ethylene	1.3 ppm	+1 ppm
Hydrogen	1.7 ppm	+1 ppm
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	5 ppm	+1 ppm
Hydrogen Sulfide	50 ppm	+1 ppm
Nitric Oxide	5 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	-1 ppm
Sulfur Dioxide	5 ppm	None

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at a concentration of 100 ppm.
 There are no special calibration considerations for this sensor.

Sensor Data Sheet **Carbon Monoxide, CO, 500ppm** **(823-1008-11-R)**

Minimum Indicated Concentration 15 ppm
 Repeatability 2%, Successive exposure
 Accuracy 5% of Indication
 Span Drift < 5% change/year (typical)
 PolyScreen¹ Response Time (Rise) T₉₀ < 60 sec, T₅₀ < 20 sec
 PolyScreen¹ Recovery Time (Fall) T₁₀ < 70 sec
 SMD¹ Response Time (Rise) T₉₀ < 135 sec, T₅₀ < 35 sec
 SMD¹ Recovery Time (Fall) T₁₀ < 150 sec
 Operating Temperature Range -20 to 50°C (-4 to 122°F)
 Storage Temperature Range 3 to 20°C (37 to 68°F)
 Operating Humidity Range 15 - 95% RH, non-condensing
 Operating Pressure Range Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Standard: 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate 0.5 LPM (recommended)
 Oxygen Requirement 1% by volume, minimum

¹ Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Chlorine	1 ppm	None
Ethylene	1.3 ppm	+1 ppm
Hydrogen	1.7 ppm	+1 ppm
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	5 ppm	+1 ppm
Hydrogen Sulfide	50 ppm	+1 ppm
Nitric Oxide	5 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	-1 ppm
Sulfur Dioxide	5 ppm	None

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 250 ppm. There are no special calibration considerations for this sensor.

SENSAIR Sensor Data Sheet

Carbon Monoxide, CO, 1000ppm (823-1009-11-R)

Minimum Indicated Concentration 30 ppm
 Repeatability 2%, Successive exposure
 Accuracy 5% of Indication
 Span Drift < 5% change/year (typical)
 PolyScreen¹ Response Time (Rise) T₉₀ < 30 sec, T₅₀ < 15 sec
 PolyScreen¹ Recovery Time (Fall) T₁₀ < 60 sec
 SMD¹ Response Time (Rise) T₉₀ < 130 sec, T₅₀ < 35 sec
 SMD¹ Recovery Time (Fall) T₁₀ < 150 sec
 Operating Temperature Range -20 to 50°C (-4 to 122°F)
 Storage Temperature Range 3 to 20°C (37 to 68°F)
 Operating Humidity Range 15 - 95% RH, non-condensing
 Operating Pressure Range Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Up to 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate 0.5 LPM (recommended)
 Oxygen Requirement 1% by volume, minimum

¹ Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Chlorine	1 ppm	None
Ethylene	1.3 ppm	+1 ppm
Hydrogen	1.7 ppm	+1 ppm
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	5 ppm	+1 ppm
Hydrogen Sulfide	50 ppm	+1 ppm
Nitric Oxide	5 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	-1 ppm
Sulfur Dioxide	5 ppm	None

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 500 ppm. There are no special calibration considerations for this sensor.

SENSAIR Sensor Data Sheet

Ammonia, NH₃-LT, 100ppm (823-1024-11-R)

Minimum Indicated Concentration 3 ppm
 Repeatability 5%, Successive exposure
 Accuracy 10% of Indication
 Span Drift < 2% change/month (typical)
 Response Time (Rise) T₉₀ < 30 sec, T₅₀ < 15 sec
 Recovery Time (Fall) T₁₀ < 120 sec
 Operating Temperature Range² -20 to 50°C (-4 to 122°F)
 Storage Temperature Range 3 to 20°C (37 to 68°F)
 Operating Humidity Range 15 - 95% RH, non-condensing
 Operating Pressure Range Ambient Atmospheric ±1.5psi
 Sensor Life (Expected)¹ Standard: 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate 0.5 LPM (recommended)
 Oxygen Requirement 1% by volume, minimum

¹ Continuous or frequent exposure to target or interferent gases will shorten the life of the sensor.

² Sensor operation characteristics are not harmed by temperatures below -20°C, however the transmitter will go into a sensor missing fault near or below -40°C.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Dioxide	5000 ppm	-1
Carbon Monoxide	100 ppm	None
Ethanol	1000 ppm	None
Hydrogen	1000 ppm	-1
Hydrogen Sulfide	0.4 ppm	+1 ppm
Isobutene	100 ppm	None

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 There are no special calibration considerations for this sensor.

SENSAIR Sensor Data Sheet

Ammonia, NH₃-LT, 300ppm (823-1025-11-R)

Minimum Indicated Concentration	9 ppm
Repeatability	5%, Successive exposure
Accuracy	10% of Indication
Span Drift	< 2% change/month (typical)
Response Time (Rise)	T ₉₀ < 90 sec, T ₅₀ < 25 sec
Recovery Time (Fall)	T ₁₀ < 120 sec
Operating Temperature Range ²	-20 to 45°C (-4 to 113°F)
Storage Temperature Range	3 to 20°C (37 to 68°F)
Operating Humidity Range	15 - 95% RH, non-condensing
Operating Pressure Range	Ambient Atmospheric ±1.5psi
Sensor Life (Expected) ¹	Standard: 3 years, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate	0.5 LPM (recommended)
Oxygen Requirement	1% by volume, minimum

¹ Continuous or frequent exposure to target or interferent gases will shorten the life of the sensor.

² Sensor operation characteristics are not harmed by temperatures below -20°C, however the transmitter will go into a sensor missing fault near or below -40°C.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Dioxide	5000 ppm	-1
Carbon Monoxide	100 ppm	None
Ethanol	1000 ppm	None
Hydrogen	1000 ppm	None
Hydrogen Sulfide	1.1 ppm	+1 ppm
Isobutene	100 ppm	None

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**

There are no special zeroing considerations for this sensor.

- **Span Calibration**

It is recommended that this sensor be calibrated at the half-scale concentration of 150 ppm. A one to two minute pre-exposure may be required for calibration.

SENSAIR *Sensor Data Sheet*

Hydrogen Fluoride, HF, 10ppm

(823-1017-11-R)

Minimum Indicated Concentration	0.3 ppm
Repeatability	5%, Successive exposure
Accuracy	10% of Indication
Span Drift.....	< 10% change/6 months (typical)
Response Time (Rise).....	T ₉₀ < 45 sec, T ₅₀ < 10 sec
Recovery Time (Fall)	T ₁₀ < 30 sec
Operating Temperature Range	-20 to 50°C (-4 to 122°F)
Storage Temperature Range.....	3 to 20°C (37 to 68°F)
Operating Humidity Range*	15 - 95% RH, non-condensing
Operating Pressure Range.....	Ambient Atmospheric ±1.5psi
Sensor Life (Expected)	Standard: 3 years, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate.....	0.5 LPM (recommended)
Oxygen Requirement.....	1% by volume, minimum

**High humidity can enhance HF absorption and adsorption.*

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Acetic Acid	100 ppm	Yes/No Data
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	100 ppm	None
Chlorine	0.5 ppm	+1
Hydrocarbons	% Range	None
Hydrogen Chloride	1.4 ppm	+1 ppm
Sulfur Dioxide	1.4 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**
The sensor should be zeroed in clean ambient air. If bottled Zero Air is used, it should be allowed to flow over the sensor for 5 minutes for moisture equilibration
- **Span Calibration**
It is recommended that this sensor be calibrated at the half-scale concentration of 5 ppm HF. A two to three minute pre-exposure is required for ensuring that the correct concentration reaches the sensor for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR *Sensor Data Sheet*

Hydrogen Cyanide, HCN, 20ppm (823-1016-11-R)

Minimum Indicated Concentration	0.6 ppm
Repeatability	2%, Successive exposure
Accuracy	5% of Indication
Span Drift	< 5% change/month (typical)
Response Time (Rise)	T ₉₀ < 45 sec, T ₅₀ < 10 sec
Recovery Time (Fall)	T ₁₀ < 120 sec
Operating Temperature Range	-20 to 50°C (-4 to 122°F)
Storage Temperature Range	3 to 20°C (37 to 68°F)
Operating Humidity Range	15 - 95% RH, non-condensing
Operating Pressure Range	Ambient Atmospheric ±1.5psi
Sensor Life (Expected)	Standard: 3 years, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate	0.5 LPM (recommended)
Oxygen Requirement	1% by volume, minimum

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Alcohols	1000 ppm	None
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	100 ppm	None
Hydrocarbons	% Range	None
Hydrogen	10,000 ppm	None
Nitric Oxide	20 ppm	-1 ppm
Nitrogen Dioxide	1.4 ppm	-1 ppm
Hydrogen Sulfide	20 ppm	None**

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

** Short gas exposure, typical 40ppm reading after filter saturation.

Special Calibration Considerations:

- **Zeroing The Sensor**
There are no special zeroing considerations for this sensor.
- **Span Calibration**
It is recommended that this sensor be calibrated at the half-scale concentration of 10 ppm HCN. A one minute pre-calibration exposure is recommended to ensure calibration gas stability.

SENSAIR Sensor Data Sheet

Hydrogen, H₂, 1000ppm (823-1015-11-R)

Minimum Indicated Concentration	30 ppm
Repeatability	5%, Successive exposure
Accuracy	10% of Indication
Span Drift.....	< 5% change/year (typical)
PolyScreen ¹ Response Time (Rise).....	T ₉₀ < 120 sec, T ₅₀ < 30 sec
PolyScreen ¹ Recovery Time (Fall)	T ₁₀ < 90sec
SMD ¹ Response Time (Rise)	T ₉₀ < 120 sec, T ₅₀ < 45 sec
SMD ¹ Recovery Time (Fall).....	T ₁₀ < 120 sec
Operating Temperature Range	-20 to 50°C (-4 to 122°F)
Storage Temperature Range.....	3 to 20°C (37 to 68°F)
Operating Humidity Range	15 - 95% RH, non-condensing
Operating Pressure Range.....	Ambient Atmospheric ±1.5psi
Sensor Life (Expected)	Standard: 3 year, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate.....	0.5 LPM (recommended)
Oxygen Requirement.....	1% by volume, minimum

¹ Polymer Screen on sensor holder, large mesh, SMD = Sintered Metal Disk flame arrestor on sensor holder.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	5 ppm	+1 ppm
Chlorine	1 ppm	None
Ethylene	1.3 ppm	+1 ppm
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	3 ppm	+1 ppm
Nitric Oxide	4 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	None
Sulfur Dioxide	5 ppm	None

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 500 ppm. A two to three minute pre-exposure may be required for calibration.

SENSAIR Sensor Data Sheet

Chlorine, Cl₂, 5ppm (823-1010-11-R)

Minimum Indicated Concentration 0.2 ppm
 Repeatability 2%, Successive exposure
 Accuracy 5% of Indication
 Span Drift < 10% change/6 months (typical)
 Response Time (Rise) T₉₀ < 20 sec, T₅₀ < 10 sec
 Recovery Time (Fall) T₁₀ < 30 sec
 Operating Temperature Range -20 to 50°C (-4 to 122°F)
 Storage Temperature Range 3 to 20°C (37 to 68°F)
 Operating Humidity Range* 15 - 95% RH, non-condensing
 Operating Pressure Range Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Standard: 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate 0.5 LPM (recommended)
 Oxygen Requirement 1% by volume, minimum

**High humidity can enhance Cl₂ absorption and adsorption.*

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	100 ppm	None
Bromine	1 ppm	+1 ppm
Chlorine Dioxide	2 ppm	+1 ppm
Hydrogen	10,000 ppm	None
Hydrogen Chloride	100 ppm	+1 ppm
Hydrogen Cyanide	100 ppm	-1 ppm
Hydrogen Sulfide	20 ppm	None
Nitric Oxide	500 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 2.5 ppm. A two to three minute pre-exposure is required for ensuring that the correct concentration reaches the sensor for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR Sensor Data Sheet

Chlorine, Cl₂, 10ppm (823-1011-11-R)

Minimum Indicated Concentration	0.3 ppm
Repeatability	2%, Successive exposure
Accuracy	5% of Indication
Span Drift	< 10% change/6 months (typical)
Response Time (Rise)	T ₉₀ < 20 sec, T ₅₀ < 10 sec
Recovery Time (Fall)	T ₁₀ < 30 sec
Operating Temperature Range	-20 to 50°C (-4 to 122°F)
Storage Temperature Range	3 to 20°C (37 to 68°F)
Operating Humidity Range*	15 - 95% RH, non-condensing
Operating Pressure Range	Ambient Atmospheric ±1.5psi
Sensor Life (Expected)	Standard: 3 years, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate	0.5 LPM (recommended)
Oxygen Requirement	1% by volume, minimum

* High humidity can enhance Cl₂ absorption and adsorption.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	100 ppm	None
Bromine	1 ppm	+1 ppm
Chlorine Dioxide	2 ppm	+1 ppm
Hydrogen	10,000 ppm	None
Hydrogen Chloride	100 ppm	+1 ppm
Hydrogen Cyanide	100 ppm	-1 ppm
Hydrogen Sulfide	20 ppm	None
Nitric Oxide	500 ppm	+1 ppm
Nitrogen Dioxide	5 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**

There are no special zeroing considerations for this sensor.

- **Span Calibration**

It is recommended that this sensor be calibrated at the half-scale concentration of 5 ppm Cl₂. A two to three minute pre-exposure is required for ensuring that the correct concentration reaches the sensor for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR Sensor Data Sheet

Hydrogen Chloride, HCl, 10ppm (823-1012-11-R)

Minimum Indicated Concentration 0.3 ppm
 Repeatability 2%, Successive exposure
 Accuracy 10% of Indication
 Span Drift < 3% change/month (typical)
 Response Time (Rise) T₉₀ < 60 sec, T₅₀ < 10 sec
 Recovery Time (Fall) T₁₀ < 60 sec
 Operating Temperature Range -20 to 50°C (-4 to 122°F)
 Storage Temperature Range 3 to 20°C (37 to 68°F)
 Operating Humidity Range* 15 - 95% RH, non-condensing
 Operating Pressure Range Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Standard: 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate 0.5 LPM (recommended)
 Oxygen Requirement 1% by volume, minimum
Bias Voltage **+200mV**
Warm-Up/Stabilization Time **1 to 6 hours, depending on bias condition**

* High moisture will enhance HCl absorption and adsorption.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Ammonia	1000 ppm	+1 ppm
Arsine	0.3 ppm	+1 ppm
Carbon Monoxide	100 ppm	None
Chlorine	16 ppm	+1 ppm
Hydrogen Cyanide	3 ppm	+1 ppm
Hydrogen Sulfide	0.3 ppm	+1 ppm
Nitrogen Dioxide	33 ppm	+1 ppm
Sulfur Dioxide	2.5	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 5 ppm HCl. A two to three minute pre-calibration exposure is recommended to ensure the gas is stable for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR Sensor Data Sheet

Hydrogen Chloride, HCl, 100ppm (823-1013-11-R)

Minimum Indicated Concentration 0.3 ppm
 Repeatability 2%, Successive exposure
 Accuracy 10% of Indication
 Span Drift < 2% change/month (typical)
 Response Time (Rise) T₉₀ < 60 sec, T₅₀ < 15 sec
 Recovery Time (Fall) T₁₀ < 60 sec
 Operating Temperature Range -20 to 50°C (-4 to 122°F)
 Storage Temperature Range 3 to 20°C (37 to 68°F)
 Operating Humidity Range* 15 - 95% RH, non-condensing
 Operating Pressure Range Ambient Atmospheric ±1.5psi
 Sensor Life (Expected) Standard: 3 years, normal service
 Calibration Frequency Monthly (recommended)
 Calibration Concentration 30 - 80 % of full scale
 Calibration Flowrate 0.5 LPM (recommended)
 Oxygen Requirement 1% by volume, minimum
Bias Voltage **+300mV**
Warm-Up/Stabilization Time **1 to 6 hours, depending on bias condition**

* High moisture will enhance HCl absorption and adsorption.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	100 ppm	+1 ppm
Chlorine	20 ppm	-1 ppm
Hydrogen Cyanide	33 ppm	+1 ppm
Hydrogen Sulfide	1 ppm	+1 ppm
Nitric Oxide	35 ppm	None
Nitrogen Dioxide	2 ppm	+1 ppm
Sulfur Dioxide	2.4 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases. None of the interferents listed will poison or inhibit the sensor.

Special Calibration Considerations:

- Zeroing The Sensor**
 There are no special zeroing considerations for this sensor.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 50 ppm HCl. A two to three minute pre-calibration exposure is recommended to ensure the gas is stable for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR *Sensor Data Sheet*

Nitrogen Dioxide, NO₂, 10ppm (823-1014-11-R)

Minimum Indicated Concentration	15 ppm
Repeatability	2%, Successive exposure
Accuracy	5% of Indication
Span Drift.....	< 12% change/6 months (typical)
Response Time (Rise).....	T ₉₀ < 40 sec, T ₅₀ < 15 sec
Recovery Time (Fall)	T ₁₀ < 60 sec
Operating Temperature Range	-20 to 50°C (-4 to 122°F)
Storage Temperature Range.....	3 to 20°C (37 to 68°F)
Operating Humidity Range	15 - 95% RH, non-condensing
Operating Pressure Range.....	Ambient Atmospheric ±1.5psi
Sensor Life (Expected)	Standard: 3 years, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate.....	0.5 LPM (recommended)
Oxygen Requirement.....	1% by volume, minimum

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Ammonia	100 ppm	None
Carbon Monoxide	300 ppm	None
Chlorine	1 ppm	+1
Hydrogen Cyanide	10 ppm	None
Hydrogen Sulfide	10 ppm	-1 ppm
Nitric Oxide	35 ppm	None
Sulfur Dioxide	100 ppm	-1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Moisture Considerations:

Rapid changes in ambient or applied moisture concentrations will induce transients in the sensor. Dry air or gas will induce negative transients while moist air/gas will induce positive transients. Faults or alarms are a possibility when these transients occur.

Special Calibration Considerations:

- Zeroing The Sensor**
 Zeroing in clean ambient air is recommended. If dry Zero Air is used, it should be moisturized to ambient levels.
- Span Calibration**
 It is recommended that this sensor be calibrated at the half-scale concentration of 5 ppm NO₂. A two to three minute pre-exposure is recommended for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR *Sensor Data Sheet*

Sulfur Dioxide (Filtered), SO₂, 20ppm (823-1018-11-R)

Minimum Indicated Concentration	0.6 ppm
Repeatability	2%, Successive exposure
Accuracy	5% of Indication
Span Drift	< 10% change/year (typical)
Response Time (Rise)	T ₉₀ < 70 sec, T ₅₀ < 30 sec
Recovery Time (Fall)	T ₁₀ < 60 sec
Operating Temperature Range	-20 to 50°C (-4 to 122°F)
Storage Temperature Range	3 to 20°C (37 to 68°F)
Operating Humidity Range	15 - 95% RH, non-condensing
Operating Pressure Range	Ambient Atmospheric ±1.5psi
Sensor Life (Expected)	Standard: 3 years, normal service
Calibration Frequency	Monthly (recommended)
Calibration Concentration	30 - 80 % of full scale
Calibration Flowrate	0.5 LPM (recommended)
Oxygen Requirement	1% by volume, minimum

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Monoxide	60 ppm	+1 ppm
Chlorine	2 ppm	-1 ppm
Ethylene	100 ppm	None
Hydrogen	100 ppm	None
Hydrogen Chloride	5 ppm	None
Hydrogen Cyanide	2 ppm	+1 ppm
Hydrogen Sulfide	15 ppm	None
Nitric Oxide	35 ppm	None
Nitrogen Dioxide	1 ppm	-1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**

There are no special zeroing considerations for this sensor.

- **Span Calibration**

It is recommended that this sensor be calibrated at the half-scale concentration of 10 ppm SO₂. A two to three minute pre-calibration exposure is recommended to ensure the gas is stable for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR Sensor Data Sheet

Chlorine Dioxide, ClO₂, 5ppm (823-1019-11-R)

- Minimum Indicated Concentration 0.15 ppm
- Repeatability 5%, Successive exposure
- Accuracy 10% of Indication
- Span Drift < 10% change/6 months (typical)
- Response Time (Rise) T₉₀ < 45 sec, T₅₀ < 15 sec
- Recovery Time (Fall) T₁₀ < 90 sec
- Operating Temperature Range -20 to 50°C (-4 to 122°F)
- Storage Temperature Range 3 to 20°C (37 to 68°F)
- Operating Humidity Range* 15 - 95% RH, non-condensing
- Operating Pressure Range Ambient Atmospheric ±1.5psi
- Sensor Life (Expected) Standard: 3 years, normal service
- Calibration Frequency Monthly (recommended)
- Calibration Concentration 30 - 80 % of full scale
- Calibration Flowrate 0.5 LPM (recommended)
- Oxygen Requirement 1% by volume, minimum

**High humidity can enhance ClO₂ absorption and adsorption.*

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	300 ppm	None
Chlorine	3 ppm	+1 ppm
Hydrogen Cyanide	22 ppm	-1 ppm
Hydrogen Sulfide	9 to 17 ppm	-1 ppm [◇]
Nitrogen Dioxide	3 ppm	+1 ppm
Sulfur Dioxide	100 ppm	-1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

◇ Negative interferent, highly variable.

Moisture Considerations:

Rapid changes in ambient or applied moisture concentrations will induce transients in the sensor. Application of dry Zero Air from room ambient (50%RH at 73°F) will cause the sensor to go negative and can result in a "Sensor Fail" indication for several minutes until the sensor starts to equilibrate to the new moisture level. Exposure to room ambient after dry exposures can cause the sensor to transient high, up to 20% of full scale, for several minutes until the sensor starts to equilibrate to the new moisture level.

Special Calibration Considerations:

- **Zeroing The Sensor**
The sensor should be zeroed in clean ambient air when possible. If Zero Air is used, it should be moisturized to ambient conditions.
- **Span Calibration**
It is recommended that this sensor be calibrated at 1 ppm ClO₂. A two to three minute pre-exposure is required for ensuring that the correct concentration reaches the sensor for calibration. Teflon or HDPE tubing (30"/76cm max. length) must be used to deliver the gas.

SENSAIR Sensor Data Sheet

Ammonia, NH₃, 50ppm (823-1004-11-R)

- Minimum Indicated Concentration 2 ppm
- Repeatability 2%, Successive exposure
- Accuracy 10% of Indication
- Span Drift < 10% change/year (typical)
- Response Time (Rise) T₉₀ < 90 sec, T₅₀ < 22 sec
- Recovery Time (Fall) T₁₀ < 180 sec
- Operating Temperature Range -20 to 50°C (-4 to 122°F)
- Storage Temperature Range 3 to 20°C (37 to 68°F)
- Operating Humidity Range 15 - 95% RH, non-condensing
- Operating Pressure Range Ambient Atmospheric ±1.5psi
- Sensor Life (Expected)¹ Standard: 3 years, normal service
- Calibration Frequency Monthly (recommended)
- Calibration Concentration 30 - 80 % of full scale
- Calibration Flowrate 0.5 LPM (recommended)
- Oxygen Requirement 1% by volume, minimum

¹ Continuous or frequent exposure to target or interferent gases will shorten the life of the sensor.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Alcohols	1000 ppm	None
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	100 ppm	None
Hydrocarbons	% Range	None
Hydrogen	10,000 ppm	None
Hydrogen Sulfide	10 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**
There are no special zeroing considerations for this sensor.
- **Span Calibration**
It is recommended that this sensor be calibrated at the half-scale concentration of 25 ppm. A one to two minute pre-exposure may be required for calibration.

SENSAIR Sensor Data Sheet

Ammonia, NH₃, 100ppm (823-1005-11-R)

- Minimum Indicated Concentration 3 ppm
- Repeatability 2%, Successive exposure
- Accuracy 10% of Indication
- Span Drift < 10% change/year (typical)
- Response Time (Rise) T₉₀ < 90 sec, T₅₀ < 22 sec
- Recovery Time (Fall) T₁₀ < 180 sec
- Operating Temperature Range -20 to 50°C (-4 to 122°F)
- Storage Temperature Range 3 to 20°C (37 to 68°F)
- Operating Humidity Range 15 - 95% RH, non-condensing
- Operating Pressure Range Ambient Atmospheric ±1.5psi
- Sensor Life (Expected)¹ Standard: 3 years, normal service
- Calibration Frequency Monthly (recommended)
- Calibration Concentration 30 - 80 % of full scale
- Calibration Flowrate 0.5 LPM (recommended)
- Oxygen Requirement 1% by volume, minimum

¹ Continuous or frequent exposure to target or interferent gases will shorten the life of the sensor.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Alcohols	1000 ppm	None
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	100 ppm	None
Hydrocarbons	% Range	None
Hydrogen	10,000 ppm	None
Hydrogen Sulfide	10 ppm	+1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**
There are no special zeroing considerations for this sensor.
- **Span Calibration**
It is recommended that this sensor be calibrated at the half-scale concentration of 50 ppm. A one to two minute pre-exposure may be required for calibration.

SENSAIR Sensor Data Sheet

Ammonia, NH₃, 300ppm (823-1006-11-R)

- Minimum Indicated Concentration 9 ppm
- Repeatability 2%, Successive exposure
- Accuracy 10% of Indication
- Span Drift < 10% change/year (typical)
- Response Time (Rise) T₉₀ < 90 sec, T₅₀ < 15 sec
- Recovery Time (Fall) T₁₀ < 120 sec
- Operating Temperature Range -20 to 50°C (-4 to 122°F)
- Storage Temperature Range 3 to 20°C (37 to 68°F)
- Operating Humidity Range 15 - 95% RH, non-condensing
- Operating Pressure Range Ambient Atmospheric ±1.5psi
- Sensor Life (Expected)¹ Standard: 3 years, normal service
- Calibration Frequency Monthly (recommended)
- Calibration Concentration 30 - 80 % of full scale
- Calibration Flowrate 0.5 LPM (recommended)
- Oxygen Requirement 1% by volume, minimum

¹ Continuous or frequent exposure to target or interferent gases will shorten the life of the sensor.

Cross-Interferences*

Gas	Gas Exposure	Sensor Output
Alcohols	1000 ppm	None
Carbon Dioxide	5000 ppm	None
Carbon Monoxide	100 ppm	None
Chlorine	5 ppm	None
Hydrogen	3000 ppm	None
Hydrogen Sulfide	10 ppm	+1 ppm
Sulfur Dioxide	0.5 ppm	-1 ppm

* Interference factors may differ from sensor to sensor, it is not advisable to calibrate with interferent gases.

Special Calibration Considerations:

- **Zeroing The Sensor**
There are no special zeroing considerations for this sensor.
- **Span Calibration**
It is recommended that this sensor be calibrated at the half-scale concentration of 150 ppm. A one to two minute pre-exposure may be required for calibration.