

# APPENDIX A

## SENSOR SPECIFICATIONS

### ETHYLENE OXIDE

(0-10.0 ppm)

Part No. 452132-D-1

Minimum Indicated Concentration .....	0.4 ppm
Repeatability .....	± 2% of reading
Accuracy * .....	± 2% of full scale
Zero Drift .....	< 5% change per year (typical)
Span Drift .....	< 10% change per year (typical)
Response Time (Rise) .....	T <sub>50</sub> : < 45 seconds, (typical) T <sub>90</sub> : < 140 seconds, successive exposures
Recovery Time (Fall) .....	T <sub>10</sub> : < 100 seconds
Temperature Range ** .....	-20° to 50°C (-4° to 122°F)
Humidity Range (continuous) .....	5–95 %RH, non-condensing
Humidity Range (intermittent†) .....	0–99 %RH, non-condensing
Pressure Range .....	Ambient atmospheric, ± 1 psi
Recommended Calibration Flow Rate .....	1.0 LPM
Oxygen Requirement .....	1% by volume, minimum

† Gas exposure should not exceed eight (8) hours during any 24 hour period.

\* When unit is calibrated and serviced at recommended intervals.

#### ETHYLENE OXIDE

Interferent	TLV	LEL	Exposure	Response
Carbon Monoxide	25 ppm	12.5 %v	2.8 ppm	+ 1 ppm
Ethanol	1000 ppm	3.3 %v	1.5 ppm	+ 1 ppm
Ethylene	asphyxiant	3.1 %v	1.2 ppm	+ 1 ppm
Hydrogen	asphyxiant	4.0 %v	33 ppm	+ 1 ppm
Hydrogen Sulfide	10 ppm	4.0 %v	0.5 ppm	+ 1 ppm
Methanol	200 ppm	6.0 %v	0.7 ppm	+ 1 ppm
Nitric Oxide	25 ppm	***	1.3 ppm	+ 1 ppm
Nitrogen Oxide	3 ppm	***	11 ppm	+ 1 ppm
Ozone	0.05 ppm	***	1.2 ppm	- 1 ppm
Sulfur Dioxide	2 ppm	***	2.8 ppm	+ 1 ppm
Toluene	50 ppm	1.4 %v	13.7 ppm	+ 1 ppm

#### Interferent Notes

(\*\*\*) means the substance is not combustible in air under normal conditions. "C" Denotes a ceiling (in TLV column).

If an interferent is present and there is no target gas, certain transmitters will not display the interferent response until the EFFECT of the interferent reaches ± 0.04 ppm. This is due to display "blinking" that occurs between - 0.03 ppm and + 0.03 ppm on transmitters that display gas concentrations with two digits after the decimal.