

Critical Environment Technologies Canada Inc.

****** USER "QUICK REFERENCE" Rev-B April 9, 2010, FOR YESAIR & YES Plus LGA plug-and-play sensors - CROSS SENSITIVITY - LIFE SPAN - RANGE - SPAN GAS ******

SENSOR (TARGET GAS)	SENSOR TECNOLOGY	STANDARD RANGE	LIFE SPAN	WARRANTY	BIOS	CROSS SENSITIVE	CALIBRATION, CORRELATION GAS
					*3	*2	*4
Carbon Dioxide (CO ₂)	infrared	0-5000 PPM	10-Years +	1-Year (pro-rated)	No	None	Carbon Dioxide
Carbon Dioxide (CO ₂)	infrared	0-% Volume	10-years +	1-Year (pro-rated)	No	None	Carbon Dioxide
Carbon Monoxide (CO)	Electrochemical	0-50 ppm	2-3 Years	2-Years (pro-rated)	No	After filter capacity, reference spec sheet.	Carbon Monoxide
Nitrogen Dioxide (NO ₂)	Electrochemical	0-10 ppm	2-3 Years	2-Years (pro-rated)	No	Cl ₂ , NH ₃ , CO, H ₂ S, H ₂ , SO ₂ , NO, C ₂ H ₂	Nitorgen Dioxide
Combustibles	Catalytic	0-100% LEL	2 Years +	2-3 Years+	No	Other combustible / flammable gases/vapours	Target combustible
Combustibles	infrared		10-Years +	1-Year (pro-rated)	No	None	Target combustible
TVOCs	PID	0-20 ppm	1-Year *	6-Months (pro-rated)	No	Other toxic gases/vapours/chemicals	Isobutylene 10-ppm
TVOCs	PID	0-2000 ppm	1-Year *	6-Months (pro-rated)	No	Other toxic gases/vapours/chemicals	Isobutylene 100-ppm
Oxygen (O ₂)	Electrochemical	0-25.0% Volume	2-Years	2-Years (pro-rated)	No	CO ₂	Carbon Dioxide
Ozone (O ₃)	Electrochemical	0-1.0 ppm	1.5-Years	1-Year (pro-rated)	No	Cl ₂ , ClO ₂ , NO ₂ , etc.	Chlorine
Ammonia (NH ₃)	Electrochemical	0-100 ppm	1.5-Years *1	1-Year (pro-rated)	No	Alcohols, CO, H ₂ , H ₂ S, etc.	Ammonia
Chlorine (Cl ₂)	Electrochemical	0-5.0 ppm	2-Years	2-Years (pro-rated)	No	NO ₂ , NO, SO ₂ , H ₂ , H ₂ S, CO, Ethylene	Chlorine
Chlorine Dioxide (ClO ₂)	Electrochemical	0-1.0 ppm	2-Years	1-Year (pro-rated)	No	Cl ₂ , NO ₂ , HCN	Chlorine
Nitric Oxide (NO)	Electrochemical	0-100 ppm	2-Years	2-Years (pro-rated)	Yes *5	NO ₂ , SO ₂ , Cl ₂ , H ₂ , H ₂ S, CO, NH ₃	Nitric Oxide
Hydrogen (H ₂)	Electrochemical	0-1000 ppm	2-Years	1-Year (pro-rated)	No	CO, H ₂ S, NO, HCN, Ethylene	Hydrogen
Hydrogen Flouride (HF)	Electrochemical	0-10 ppm	1.5-Years	1-Year (pro-rated)	No	Cl ₂ , HCl, SO ₂ , etc.	Chlorine
Phosgene COCl ₂)	Electrochemical	0-1.0 ppm	1-Year *	7-Months (pro-rated)	No	Arsine, Cl ₂ , HCl, H ₂ S, O ₃	Chlorine
Hydrazine (N ₂ H ₄)	Electrochemical	0-1.0 ppm	1-Years	42-Weeks (pro-rated)	No	NH ₃ , Arsine, Cl ₂ , HCN, H ₂ S	Chlorine
Hydrogen Chloride (HCl)	Electrochemical	0-30 ppm	2-Years	1-Year (pro-rated)	Yes *5	NH ₃ , Arsine, Cl ₂ , H ₂ S, NO, NO ₂	Nitric Oxide
Hydorgen Cyanide (HCN)	Electrochemical	0-30 ppm	1.5-Years	1-Year (pro-rated)	No	Nitric Oxide, Nitrogen Dioxide	Hydrogen Cyanide
Hydrogen Sulphide (H ₂ S)	Electrochemical	0-50 ppm	2-Years	2-Years (pro-rated)	No	Ethylene, SO ₂ , NO, H ₂ , CO, NH ₃ , etc.	Hydrogen Sulphide
Sulphur Dioxide (SO ₂)	Electrochemical	0-20 ppm	2-Years	2-Years (pro-rated)	No	Ethylene, NO, NO ₂ , CO, NH ₃ , etc.	Sulphur Dioxide
Flourine (F ₂)	Electrochemical	0-1.0 ppm	1.5-Years	1-Year (pro-rated)	No	Arsine, Chlorine, Diborane, Carbon Monoxide	Chlorine
Phosphine (PH ₃)	Electrochemical	0-20 ppm	2-Years	1-Year (pro-rated)	No	Arsine, Silane, Sulphur Dioxide, Diborane, etc.	Sulphur Dioxide
Arsine AsH ₃)	Electrochemical	0-1.0 ppm	1.5-Years	10-Month (pro-rated)	No	Ammonia, Silane, Hydrogen Cyanide, etc.	Sulphur Dioxide
Silane (SiH ₄)	Electrochemical	0-50 ppm	1.5-Years	1-Year (pro-rated)	No	Arsine, Diborane, Phosphine, Sulphur Dioxide	Hydrogen Sulphide
Formaldehyde (HCHO)	Electrochemical	0-30 ppm	2-Years	2-Years (pro-rated)	No	Hydrogen, Carbon Monoxide, Alcohols	Carbon Monoxide

IMPORTANT NOTES

1) **SENSOR SPECIFICITY:** WHEN SELECTING SENSORS FOR THE YESAIR, PLEASE REVIEW THE ABOVE QUICK REFERENCE CHART. SOME SENSORS RESPOND TO EACH OTHER'S TARGET GAS, BECAUSE THEY HAVE A CERTAIN AMOUNT OF CROSS SENSITIVITY AND AS SUCH, MAY DISPLAY A VALUE WHEN ONE OF THE GASES IT IS CROSS SENSITIVE TO IS PRESENT IN THE MONITORING AREA.

2) **WHEN CHLORINE, OZONE AND/OR NITROGEN DIOXIDE SENSORS ARE INSTALLED IN THE SAME INSTRUMENT, CALIBRATION MUST BE HANDLED DIFFERENTLY. FLOWING CHLORINE INTO THE YESAIR EXPOSES ALL SENSORS TO THE SPAN GAS. NO₂ SENSORS MAY BECOME INHIBITED FROM OVER EXPOSURE TO CHLORINE TO AVOID THIS, TEMPORARILY REMOVE SENSORS FROM THIS GROUPING THAT ARE NOT BEING CALIBRATED UNTIL THE OTHERS ARE CALIBRATED THEN REINSTALL AND CALIBRATE THEM SEPARATELY.**

*1 Life span of Ammonia sensors will be shortened with increased exposure to target gas.

*2 Reference sensor specification for percentage of cross sensitivity.

*3 BIOS means the sensor requires special treatment within the circuit. Two BIOS requiring sensors **CANNOT** be used in the same YESAIR instrument.

*4 Correlation span gases may / will be used to calibrate sensor if indicated above. If customer wants target gas utilized to calibrate their sensor(s), an extra charge will apply for the cost of a cylinder of target span gas.

**** As with all our published specifications, CETCI reserves the right to make changes without prior notice. Data is considered accurate at the time of publishing this page.****