

Table 1: FeNO Sensor & Analyzer Comparison

	Sunvou Sensor and HA1101 Analyzer	Niox Sensor and Vero Analyzer	Bedfont Sensor and NOBreath Analyzer	Bosch Sensor and Vivatmo pro Analyze
Sensor Type	Electrochemical	Electrochemical	Electrochemical	Semiconductor
Sensor Size	2.39 cm ³	9.42m ³	16 cm ³	NS
Sensor Manufacturing Process	11 processes	35 processes	47 processes	NS
Sensor Manufacturing Automation	80%	20%	20%	NS
Warm-up Time (Analyzer)	not required	not required	≤60 s	≤100 s 7-90 min *
Breath and Analysis Time (Analyzer)	20 s	70 s	12 s for Adult 10 s for Child	10 s
Measurement Range (Analyzer)	0-3000 ppb	5-800 ppb	5-500 ppb	5-300 ppb
Detection	FeNO50+FnNO10 +FeNO200/CaNO Online+Offline	FeNO50 Online	FeNO50 Online	FeNO50 Online
Accuracy (Analyzer)	±3 ppb/±10%	±5 ppb/±10%	±5 ppb for ≤ 50 ppb, ±10% for > 50 ppb	±5 ppb for < 50 ppb, ±10% for ≥ 50 ppb
Precision (Analyzer)	< 3 ppb for values < 30 ppb, <10% of measured value for values ≥30 ppb	< 3 ppb for values < 30 ppb, <10% of measured value for values ≥30 ppb	±5 ppb for ≤ 50 ppb, ±10% for > 50 ppb	±5 ppb for < 50 ppb, ±10% for ≥ 50 ppb, ±15% for ≥ 160 ppb
Interferences (Analyzer)	16 gases evaluated (Table 2 for details)	13 gases evaluated (Table 2 for details)	1 gas evaluated 45 ppm CO ≤ 17.6 ppb	13 gases evaluated (Table 2 for details)

* If the Vivatmo pro device has been stored in a warm and humid environment or has not been in use for a long time.



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Table 2: Interferences

		Sunvou-HA1101 Analyzer		Niox Vero Analyzer		Bedfont NOBreath Analyzer		Bosch Vivatmo pro Analyzer	
Substance	Concentration expected in exhaled breath	Concentration tested	Interference, equivalent to ppb NO	Concentration tested	Interference, equivalent to ppb NO	Concentration tested	Interference, equivalent to ppb NO	Concentration tested	Interference, equivalent to ppb NO
Carbon Dioxide	5%	5%	ND [#]	5%	ND*	NS	NS	8%	NS
Carbon Monoxide	50 ppm	250 ppm	ND [#]	250 ppm	ND*	45 ppm	17.6	50 ppm	NS
Oxygen	18%	100%	ND [#]	100%	ND*	NS	NS	21%	NS
Hydrogen	50 ppm	1000 ppm	ND [#]	500 ppm	ND*	NS	NS	50 ppm	NS
Ethanol	165 ppm	1000 ppm	ND [#]	1000 ppm	ND*	NS	NS	165 ppm	NS
Isoprene	1 ppm	1000 ppm	ND [#]	1000 ppm	ND*	NS	NS	1.5 ppm	NS
Acetaldehyde	100 ppb	1000 ppm	ND [#]	1000 ppm	ND*	NS	NS	150 ppb	NS
Acetone	10 ppb	100 ppm	ND [#]	100 ppm	ND*	NS	NS	5 ppm	NS
Acetonitrile	100 ppb	500 ppm	ND [#]	500 ppm	ND*	NS	NS	150 ppb	NS
Ammonia	0.5 ppb	100 ppm	ND [#]	100 ppm	ND*	NS	NS	1 ppm	NS
Hydrogen Peroxide	1 ppm	500 ppm	ND [#]	500 ppm	ND*	NS	NS	600 ppm	NS
Nitrogen Dioxide	200 ppb	200 ppb	ND [#]	9.2 ppb	2.5	NS	NS	13 ppb	NS
Hydrogen Sulfide	1 ppm	1 ppm	ND [#]	1 ppm	2.0	NS	NS	4 ppm	NS
Methanethiol	100 ppb	100 ppb	3.6	NS	NS	NS	NS	NS	NS
Dimethyl sulfide	100 ppb	200 ppb	ND [#]	NS	NS	NS	NS	NS	NS
Nitrogen	78%	100%	ND [#]	NS	NS	NS	NS	NS	NS

NS, not specified

ND*, Niox Vero indicates these interfering gases are "not detectable"

ND[#], "not detectable", all these interfering gases are below the detection limit of Sunvou devices, eg $\leq \pm 3$ ppb

References:

1. Data on file "Verification Report for Endogenous Interference"
2. Nano Coulomb Breath Analyzer Sunvou-HA1101 User Manual
3. K133898 510(k) decision summary NIOX VERO
4. LAB759 NOBreath Fractional Exhaled Nitric Oxide (FeNO) Monitor User Manual
5. K233775 510K decision summary Bosch Vivatmo Pro



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