

List of Available Components for ID100 Gas Analyzer

#	Compound name	Formula	CAS number	Standard range	Detection limit*	Unit
Standard components						
1	Water	H ₂ O	7732-18-5	3	-	vol-%
2	Carbon dioxide	CO ₂	124-38-9	2000	-	ppm
3	Carbon monoxide	CO	630-08-0	200	0.25	ppm
4	Nitrous oxide	N ₂ O	10024-97-2	100	0.02	ppm
5	Methane	CH ₄	74-82-8	100	0.11	ppm
Additional components						
<i>Inorganic compounds</i>						
6	Sulfur dioxide	SO ₂	7446-09-5	100	0.03	ppm
7	Nitrogen monoxide (Nitric oxide)	NO	10102-43-9	200	0.28	ppm
8	Nitrogen dioxide	NO ₂	10102-44-0	50	0.37	ppm
9	Ammonia	NH ₃	7664-41-7	50	0.13	ppm
10	Hydrogen chloride	HCl	7647-01-0	50	0.2	ppm
11	Hydrogen fluoride	HF	7664-39-3	50	0.2	ppm
12	Hydrogen cyanide	HCN	74-90-8	50	0.35	ppm
<i>Hydrocarbons</i>						
13	Ethane	C ₂ H ₆	74-84-0	200	0.13	ppm
14	Ethylene (Ethene)	C ₂ H ₄	74-85-1	200	0.18	ppm
15	<i>n</i> -Propane	C ₃ H ₈	74-98-6	100	0.05	ppm
16	<i>n</i> -Hexane	C ₆ H ₁₄	110-54-3	100	0.03	ppm
17	Formaldehyde	CH ₂ O	50-00-0	50	0.09	ppm
18	<i>n</i> -Butane	C ₄ H ₁₀	106-97-8	100	0.04	ppm

19	<i>n</i> -Pentane	C ₅ H ₁₂	109-66-0	100	0.04	ppm
20	<i>n</i> -Heptane	C ₇ H ₁₆	142-82-5	50	0.03	ppm
21	<i>n</i> -Octane	C ₈ H ₁₈	111-65-9	50	0.02	ppm
22	<i>n</i> -Nonane	C ₉ H ₂₀	111-84-2	50	0.02	ppm
23	<i>n</i> -Decane	C ₁₀ H ₂₂	124-18-5	50	0.03	ppm
24	Acetylene (Ethyne)	CH≡CH	74-86-2	200	0.27	ppm
25	<i>n</i> -Propene	C ₃ H ₆	115-07-1	200	0.24	ppm
26	1,3-Butadiene	CH ₂ =CHCH=CH ₂	106-99-0	200	0.20	ppm
27	Cyclohexane	C ₆ H ₁₂	110-82-7	50	0.01	ppm
28	Benzene	C ₆ H ₆	71-43-2	50	0.13	ppm
29	Toluene	C ₆ H ₅ CH ₃	108-88-3	200	0.13	ppm
30	Styrene	C ₆ H ₅ CH=CH ₂	100-42-5	200	0.16	ppm
31	Ethyl benzene	C ₆ H ₅ C ₂ H ₅	100-41-4	100	0.08	ppm
32	<i>m</i> -Xylene	1,3-(CH ₃) ₂ C ₆ H ₄	108-38-3	200	0.12	ppm
33	<i>o</i> -Xylene	1,2-(CH ₃) ₂ C ₆ H ₄	95-47-6	200	0.13	ppm
34	<i>p</i> -Xylene	1,4-(CH ₃) ₂ C ₆ H ₄	106-42-3	200	0.10	ppm
35	1,2,3-Trimethylbenzene	1,2,3-(CH ₃) ₃ C ₆ H ₃	526-73-8	100	0.10	ppm
36	1,2,4-Trimethylbenzene	1,2,4-(CH ₃) ₃ C ₆ H ₃	95-63-6	100	0.07	ppm
37	1,3,5-Trimethylbenzene	1,3,5-(CH ₃) ₃ C ₆ H ₃	108-67-8	100	0.07	ppm

Acids and derivatives

38	Formic acid	CH ₂ O	64-18-6	100	0.03	ppm
39	Acetic acid	CH ₃ COOH	64-19-7	100	0.04	ppm
40	Propionic acid	CH ₃ CH ₂ COOH	79-09-4	100	0.05	ppm
41	Acrylic acid	CH ₂ =CHCOOH	79-10-7	100	0.04	ppm
42	Methyl acetate	CH ₃ COOCH ₃	79-20-9	50	0.01	ppm
43	Ethyl acetate	CH ₃ COOC ₂ H ₅	141-78-6	50	0.01	ppm
44	Vinyl acetate	CH ₃ COOCH=CH ₂	108-05-4	50	0.01	ppm

<i>Aldehydes</i>						
45	Acetaldehyde	CH ₃ CHO	75-07-0	200	0.13	ppm
46	Acrolein (Acrylic aldehyde)	CH ₂ =CHCHO	107-02-8	50	0.25	ppm
<i>Ketones</i>						
47	Acetone	CH ₃ COCH ₃	67-64-1	200	0.07	ppm
48	Methyl ethyl ketone (MEK)	CH ₃ COC ₂ H ₅	78-93-3	200	0.14	ppm
49	Methyl isobutyl ketone (MIBK)	(CH ₃) ₂ C=CHCOCH ₃	108-10-1	100	0.04	ppm
<i>Alcohols</i>						
50	Methanol	CH ₃ OH	67-56-1	100	0.13	ppm
51	Ethanol	C ₂ H ₅ OH	64-17-5	200	0.20	ppm
52	1-Propanol	C ₃ H ₇ OH	71-23-8	100	0.08	ppm
53	Isopropanol (2-Propanol; Isopropyl alcohol)	CH ₃ CHOHCH ₃	67-63-0	100	0.06	ppm
54	Ethylene glycol (1,2-Ethanediol)	OHCH ₂ CH ₂ OH	107-21-1	100	0.12	ppm
55	Phenol	C ₆ H ₅ OH	108-95-2	50	0.05	ppm
<i>Ethers</i>						
56	Methyl ether	CH ₃ OCH ₃	115-10-6	100	0.06	ppm
57	Methyl tertiary butyl ether (MTBE)	CH ₃ OC(CH ₃) ₃	1634-04-4	100	0.03	ppm
58	Diethyl ether (Ethoxy ethane)	C ₂ H ₅ OC ₂ H ₅	60-29-7	50	0.02	ppm
<i>Epoxy compounds</i>						
59	Ethylene oxide (Oxirane; Epoxyethane)	C ₂ H ₄ O	75-21-8	50	0.18	ppm
60	Propylene oxide (Methyl oxirane; Epoxypropane)	C ₃ H ₆ O	75-56-9	200	0.12	ppm
61	Furan (Furfuran)	C ₄ H ₄ O	110-00-9	200	0.28	ppm
<i>Sulfur compounds</i>						
62	Carbon disulfide	CS ₂	75-15-0	200	0.17	ppm
63	Methylmercaptan (Methanethiol)	CH ₃ SH	74-93-1	200	0.41	ppm

64	Ethylmercaptan (Ethanethiol)	C ₂ H ₅ SH	75-08-1	200	0.15	ppm
65	Dimethyl sulfide (DMS)	(CH ₃) ₂ S	75-18-3	200	0.16	ppm
66	Dimethyl disulfide (DMDS)	(CH ₃) ₂ S ₂	624-92-0	200	0.14	ppm
<i>Nitrogen compounds</i>						
67	Methylamine	CH ₃ NH ₂	74-89-5	200	0.22	ppm
68	Dimethylamine	(CH ₃) ₂ NH	124-40-3	200	0.11	ppm
69	Trimethylamine	(CH ₃) ₃ N	75-50-3	100	0.05	ppm
70	Ethylamine	C ₂ H ₅ NH ₂	75-04-7	200	0.14	ppm
71	Diethylamine	(C ₂ H ₅) ₂ NH	109-89-7	100	0.06	ppm
72	Triethylamine	(C ₂ H ₅) ₃ N	121-44-8	50	0.02	ppm
73	Acetonitrile	CH ₃ CN	75-05-8	200	2.95	ppm
74	Acrylonitrile	CH ₂ CHCN	107-13-1	50	0.35	ppm
75	Nitromethane	CH ₃ NO ₂	75-52-5	200	0.90	ppm
<i>Chloro compounds (see also freons)</i>						
76	Methyl chloride (Freon 40)	CH ₃ Cl	74-87-3	200	0.37	ppm
77	Dichloromethane (Methylene chloride; Freon 30)	CH ₂ Cl ₂	75-09-2	200	0.10	ppm
78	Chloroform (Trichloromethane; Freon 20)	CHCl ₃	67-66-3	100	0.04	ppm
79	Ethyl chloride	C ₂ H ₅ Cl	75-00-3	200	0.21	ppm
80	Chloroethene (Vinyl chloride)	CHCl=CH ₂	75-01-4	200	0.34	ppm
81	Tetrachloroethylene (perchloroethylene)	CCl ₂ =CCl ₂	127-18-4	50	0.03	ppm
82	Phosgene	COCl ₂	75-44-5	50	0.018	ppm
<i>Fluoro compounds (see also freons)</i>						
83	Sevoflurane [2,2,2-trifluoro-1-(trifluoromethyl) ethyl ether]	CF ₃ CH(CF ₃)OCH ₂ F	28523-86-6	50	0.01	ppm
84	Desflurane (1,2,2,2-tetrafluoroethyl difluoromethyl ether)	CF ₃ CHFOCHF ₂	57041-67-5	50	0.01	ppm

85	Halothane (2-bromo-2-chloro-1,1,1-trifluoro-ethane)	C2HBrClF3	151-67-7	50	0.01	ppm
Freons						
86	Freon 11 (Trichloromonofluoromethane)	CCl3F	75-69-4	100	0.05	ppm
87	Freon 12 (Dichlorodifluoromethane)	CCl2F2	75-71-8	50	0.02	ppm
88	Freon 14 (Carbon tetrafluoride)	CF4	75-73-0	50	0.01	ppm
89	Freon 114 (1,2-Dichloro-1,1,2,2-tetrafluoroethane)	CHClF2CClF2	76-14-2	50	0.01	ppm
90	Freon 123 (1,1-Dichloro 2,2,2-trifluoroethane)	CHCl2CF3	306-83-2	50	0.01	ppm
91	Freon 124 (1-Chloro-1,2,2,2-tetrafluoroethane)	CHClFCF3	2837-89-0	50	0.01	ppm
92	Freon 125 (Pentafluoroethane)	CHF2CF3	354-33-6	50	0.01	ppm
93	Freon 134a (1,1,1,2-Tetrafluoroethane)	CF3CH2F	811-97-2	50	0.01	ppm
94	Freon 141 (1,1-Dichloro-1-fluoroethane)	CCl2FCH3	1717-00-6	100	0.07	ppm
95	Freon 142b (1-Chloro-1,1-difluoroethane)	CClF2CH3	75-68-3	50	0.02	ppm
96	Freon 143a (1,1,1-Trifluoroethane)	CF3CH3	420-46-2	50	0.01	ppm
Other organic / Inorganic compounds						
97	Sulfur hexafluoride	SF6	2551-62-4	50	0.004	ppm
98	Sulfuryl fluoride	SO2F2	2699-79-8	50	0.03	ppm
99	Arsine	AsH3	7784-42-1	50	0.02	ppm
100	Methyl bromide	CH3Br	74-83-9	200	0.47	ppm
101	Phosphine	PH3	7803-51-2	50	0.20	ppm
Other components						
Please contact Envionics Oy for availability and ranges for components that are not mentioned on the list.						
*Detection limits determined in N ₂ ; t = 50 °C						