PHD6 Sensor Information

Part No.	Description	Range	Resolution
54-54-80	LEL Combustible Gas	0 – 100% LEL	1% LEL
54-54-90	O_2 Oxygen	0 – 30% by Volume	0.1%
54-54-01	CO Carbon Monoxide	0 – 1000 PPM	1 PPM
54-54-19	CO-H CO Minus, reduced sensitivity to H_2	0 – 1000 PPM	1 PPM
54-54-05	CO+ CO Plus dual purpose CO / H_2S (Provides a non-specific readout for CO and H_2S)	CO: 0 – 1000 PPM H_2S: 0 – 200 PPM	1 PPM
54-54-02	H_2S Hydrogen Sulfide	0 – 200 PPM	1 PPM
54-54-14	Duo-Tox Dual Channel CO/H_2S Provides substance specific readouts for CO & H_2S	CO: 0 – 1000 PPM H_2S: 0 – 200 PPM	1 PPM 1 PPM
54-54-03	SO_2 Sulfur dioxide	0 – 25 PPM	0.1 PPM
54-54-21	NH_3 Ammonia	0 – 100 PPM	1 PPM
54-54-18	Cl_2 Chlorine (specific)	0 – 50 PPM	0.1 PPM
54-54-20	ClO_2 Chlorine dioxide (specific)	0 – 5 PPM	0.01 PPM
54-54-06	NO Nitric oxide	0 – 350 PPM	1 PPM
54-54-09	NO_2 Nitrogen dioxide	0 – 50 PPM	0.1 PPM
54-54-23	HCN Hydrogen cyanide	0 – 100 PPM	0.2 PPM
54-54-13	PH_3 Phosphine	0 – 20 PPM	0.1 PPM
54-54-50	NDIR CO_2 Carbon dioxide	50,000 PPM (5.0%/vol)	10PPM
54-54-51	NDIR CH_4 Methane	0 – 990 PPM 1.00%/vol – 5.00%/vol)	10 PPM .01%/vol
54-54-52	PID Volatile Organic Compound (VOCs)	200PPM	.1PPM

Electrochemical Toxic Sensor Cross-Sensitivity

The table below provides the cross-sensitivity response of the PHD6 electrochemical toxic gas sensors to common interference gases. The values are expressed as a percentage of the primary sensitivity, or the reading of the sensor when exposed to 100ppm of the interfering gas at 20ºC. These values are approximate. The actual values depend on the age and condition of the sensor. Sensors should always be calibrated to the primary gas type. Cross-sensitive gases should not be used as sensor calibration surrogates without the express written consent of Biosystems.

SENSOR	CO	H2S	SO2	NO	NO2	Cl2	ClO2	H2	HCN	HCl	NH3	C2H4	C2H2
Carbon Monoxide (CO)	100	10	5	10	-15	-5	-15	50	15	3	0	75	250
Carbon Monoxide (CO+)	100	350	50	30	-60	-60	-120	50	n/d	n/d	0	75	250
Carbon Monoxide (CO-H)	100	2	0.5	3	-0.5	-0.5	-1.5	5	n/d	n/d	0.1	35	(+)
Hydrogen Sulfide (H2S)	0.5	100	20	2	-20	-20	-60	0.2	0	0	0	n/d	n/d
Sulfur Dioxide (SO2)	1	0	100	<8	-100	-70	-150	0.2	n/d	n/d	<0.1	15	100
Nitrogen Dioxide (NO2)	<0.1	-40	-2.5	<0.5	100	100	270	<0.1	n/d	n/d	<0.1	n/d	0.1
Nitric Oxide (NO)	0.1	≤15	≤10	100	≤30	15	n/d	0.1	n/d	n/d	n/d	n/d	n/d
Chlorine (Cl2) (specific)	0	-3	<1	n/d	12	100	20	0	0	0	0	0	0
Chlorine (Cl2) (non-specific)	0	-20	<5	0	120	100	300	0	n/d	n/d	0	n/d	n/d
Chlorine Dioxide (ClO2) (specific)	0	-25	-5	n/d	n/d	60	100	0	0	0	n/d	0	0
Chlorine Dioxide (ClO2) (non-specific)	0	-7	<2	0	40	<35	100	0	n/d	n/d	0	n/d	n/d
Ammonia (NH3)	<1	<10	2	n/d	0	0	n/d	0	0	0	100	0	0
Phosphine (PH3)	0.5	25	20	n/d	(-)	(-)	(-)	0.1	n/d	n/d	n/d	1	0.5
Hydrogen Cyanide (HCN) (old style 54-54-10)	0.5	200	100	-5	-70	-50	-150	0	100	65	-5	0	n/d
Hydrogen Cyanide (HCN) (new style 54-54-23)	0	0**	n/d	n/d	-70	n/d	n/d	0	100	n/d	n/d	n/d	n/d

** Sensor manufacturer rates Cross Sensitivity for (54-54-23) HCN sensor to H2S as follows for 20 PPM exposure at 20°C: "Short gas exposure in minute range; after filter saturation: ca. 40 PPM reading".

n/d = no data

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