



北斗星仪器 MGD2290-106 化学战剂探测传感器性能表

Ref:MGD2290\_106\_DS

	气体	分子式	分子量	说明	响应灵敏度 系数	AH 灵敏度 ppb	A1 灵敏度 ppb	AH 线性量 程 ppm	A1 线性量 程 ppm
Hydrogen sulfide	硫化氢	H2S	34		4				
Ethanol	乙醇	C2H6O	46		8.72				
Toluene	甲苯	C7H8	92		0.51				
Isobutylene	异丁烯		56		1	5	100	50	300
CWA Arsine	胂	AsH3	78		2	10	200	100	600
CWA Lewsite	路易斯	CICN	62		1.2	6	120	60	360
CWA Mustard Gas	芥子气	C2H2AsCl3	159		1	6	100	60	360
CWA N-Mustard Gas	n-芥子气	C4H18SCI2	172		1.1	5.5	110	55	330
CWA Phosgene	光气	COCl2	99	无响应	0				
CWA Sarin	沙林	C4H10PO2F	140		3.1	15.5	310	155	930
CWA Soman	索曼	C7H116P02F	182		3.2	16	320	160	960
CWA Tabun	塔崩	C5H11PN2O2	162		1.2	6	120	60	360
CWA VX	VX	C11H26PNSO2	267		1	5	100	50	300
CWA GF		C7H14P02F	180		3.3	16.5	330	165	990
CWA DMMP		C3H9P03	124		5	25	500	250	1500
CWA Triethyl phosphate	磷酸三乙酯	C6H15P03	182	生物毒剂/细菌特征	3.5	17.5	350	175	1050
CWA Methyl salicylate	甲基水杨酸	C8H19O4	152	生物毒剂/细菌特征	1	5	100	50	300

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	PID-AH	PID-A1
<b>MINIMUM DETECTION LEVEL</b> (ppb isobutylene)	5	100
<b>LINEAR RANGE</b> (ppm isobutylene) (1% deviation)	50	300
<b>OVERRANGE</b> (ppm isobutylene)	1,000	6,000
<b>SENSITIVITY</b> (linear range) (mV / ppm Isobutylene)	> 20	> 1
<b>WARM-UP TIME MINUTES</b> (A1: to 100ppb, AH: to 20ppb)	15	5
<b>OFFSET VOLTAGE</b> (mV)	60 - 70	50 - 51

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<b>TARGET GASES</b>	VOC's with ionisation potentials < 10.6eV
<b>POWER CONSUMPTION</b>	110mW typical (at 3.3V)
<b>POWER VOLTAGE</b>	3.0 to 3.6VDC (ideally regulated $\pm 0.01V$ )
<b>OUTPUT SIGNAL</b>	Offset Voltage to $V_{max}$ ( $V_{max} = V_{supply} - 0.1V$ )
<b>ONBOARD FILTER</b>	To remove liquids and particulates.
<b>TEMPERATURE RANGE</b>	-40°C to +40°C (Intrinsically safe), -40°C to +60°C (Non IS)
<b>TEMPERATURE DEPENDENCE</b>	0°C to 40°C: 99% of signal at 25°C -20°C: 97% of signal at 25°C

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<b>RESPONSE TIME (<math>t_{90}</math>)</b>	< 3 seconds, diffusion mode
<b>ERROR STATE SIGNAL</b>	Output less than 35mV
<b>RELATIVE HUMIDITY RANGE</b>	0 to 95%rh, non-condensing
<b>HUMIDITY RESPONSE</b>	Near zero
<b>EXPECTED OPERATING LIFE</b>	>18 months
<b>IS APPROVAL</b>	IECEX Ex ia IIC T4; ATEX EEx ia II 1G -40°C < $T_a$ < +40°C
<b>LAMP REPLACEMENT</b>	User replaceable (10.6 eV)
<b>ELECTRODE STACK</b>	User replaceable

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