

The M2A-XL is an unattended single gas transmitter available in a wide variety of sensors that include LEL, O2, H2S, CO, CO2, 100% Vol CH4, NH3, AsH3, ClO2, HCN, PH3, NO2, and SO2. Designed for indoor or outdoor environments, the M2A-XL can operate as either a stand-alone monitor or integrated into external controls or telemetry systems with 4-20 mA and Modbus output communications.

FEATURES

- Direct read OLED display
- Non-intrusive magnetic wand calibration
- Automatic zero drift correction
- Extended 2+ year expected sensor life
- No tool sensor swap
- Available Class I, Div 1, Groups B,C,D model



M2A - XL

APPLICATIONS

- Petrochemical
- Water & Wastewater
- Manufacturing
- Pharmaceutical
- Automotive
- Semiconductor
- Chemical
- Fence Line & CAMP



Cl Sensor




CT-7 Toxic Sensor

CALL GEOTECH TODAY
(800) 833-7958

Geotech Environmental Equipment, Inc.
2650 East 40th Avenue Denver, Colorado 80205
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email: sales@geotechenv.com website: www.geotechenv.com

Explosion Proof Class I, Div. 1, Groups B, C, D


	Part #	Combustibles		LEL	O ₂	H ₂ S	CO	CH ₄	HC	CO ₂	
		LEL	PPM	H ₂ Specific	Oxygen	Hydrogen Sulfide	Carbon Monoxide	Methane	Hydrocarbons	Carbon Dioxide	
		UL	65-2647XL	65-2641XL	65-2643XL-05	65-2645XL-05	65-2646XL-05	65-2649XL-CH4 65-2658XL-CH4	65-2649XL-HC	65-2660XL-02 65-2660XL-03 65-2660XL-05 65-2660XL-10	
CSA	65-2640XL-05	65-2647XL-05	65-261XL-05								
Sensors		Catalytic			Galvanic Cell	Electrochemical		Infrared			
Measuring Range	0-100% LEL	0-9000 ppm CH ₄	0-100% LEL	0-25.0% Vol.	0-100ppm	0-300 ppm	0-100% LEL 0-100% Vol.	0-100% LEL	-02 -03 -05 -10	0-5000 ppm 0-5% Vol. 0-50% vol. 0-100% Vol.	
Resolution	1% LEL	20 ppm	1% LEL	0.1% Vol.	1ppm		1% LEL/1%Vol.		20 ppm / 0.01%Vol / 0.1% Vol. / 1% Vol.		
Lower Detectable Limit (LDL)	2% of Full Scale			0.1% Vol.		2% of Full Scale					
Max Current Draw (24VDC)	160 mA with alarm 1 and alarm 2 active and all relays energized				125 mA with alarm 1 and alarm 2 active and all relays energized			160 mA with alarm 1 and alarm 2 active and all relays energized			
Response Time (T-90)	35 seconds or less				90 seconds or less	60 seconds or less	90 seconds or less	30 seconds or less			
Life Expectancy	2 to 3 years with normal service		3 to 5 years with normal service		2 to 3 years with normal service			5 years + with normal service			
Accuracy (which ever is greater)	± 5% of reading or ± 2% LEL				± 0.5% Vol. O ₂	± 5% of reading or ± 2 ppm H ₂ S	± 5% of reading or ± 5 ppm CO	± 5% of reading or ± 2 % of full scale			
Weather Resistant	Patented water repellent sensor coating										
Alarms											
Alarm Settings	Two fully programmable alarm set points, increasing/ decreasing, latching/ self-resetting, on delays, off delays, normally energized or de-energized										
Alarm Indication	Visual LEDs. Alarm 1: Amber; Alarm 2: Red; Fail: Red										
Relays	5 amp form 'C' contacts for alarm 1, alarm 2, and fail										
Physical											
Dimensions	Height: 6.2" (158 mm), Width: 5.66" (144 mm), Depth: 4.86" (124 mm) (Height measurement does not include sensor)										
Display	Alphanumeric OLED display. 8 characters per line; 2 lines for gas concentration readout, plus user-friendly calibration and setup										
Enclosure	Explosion proof for Class I, Div 1, Groups B, C, D.										
Enclosure Rating	NEMA 4X, explosion proof, watertight, cast aluminum with o-ring seal and epoxy powder coating										
Controls	Magnet used for calibration functions. Calibrates without opening the housing. Internal push-button controls also available for calibration and setup										
Operating Environment											
Operating Temperature	-40°F to 167°F -40°C to 75°C			-4°F to 122°F -20°C to 50°C		-40°F to 122°F -40°C to 50°C		-4°F to 122°F -20°C to 50°C		-40°F to 122°F -40°C to 50°C	
Relative Humidity	5 - 95% RH non-condensing										
Location	Indoor or outdoor. Explosion proof for Class I, Div. 1. Groups B, C, D										
Operating Voltage	10 VDC - 30 VDC										
Outputs											
Analog	Linear 4-20 mA signal, into 1000 ohms impedance max (24DC), 0 - 500 ohms max (12VDC) corresponding to 0 - full scale										
Digital	Modbus RTU output standard, fully configurable, 2-wire RS-485, 1200 to 19.2k baud										
Approvals	65-2640XL UL	65-2641XL UL	C CSA US					C UL US			
	65-2640XL-05 C CSA US	65-2641XL-05 C CSA US									
Controllers	Beacon 110, Beacon 200, Beacon 410A, Beacon 800, Beacon 3200 as well as most DCS / PLC systems										
Warranty	One year material and workmanship										

*Partial Pressure Sensor for Helium (He) applications. Consult Factory for details.

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Toxic Gas Transmitters Class I, Div. 2

		O ₂ Oxygen	H ₂ S Hydrogen Sulfide	CO Carbon Monoxide	Toxics* See Chart Below	CO ₂ Carbon Dioxide
	Part #	65-2666XL *65-2644XL	65-2662XL	65-2663XL	See Chart Below	65-2661XL-02 65-2661XL-03 65-2661XL-05 65-2661XL-10
Sensors	Galvanic Cell	Electrochemical			Infrared	
Measuring Ranges	0-25% Vol.	0-100 ppm	300ppm	See Chart Below	-02 -03 -05 -10	0-5000 ppm 0-5% Vol. 0-50% Vol. 0-100% Vol.
Resolution	0.1% Vol.	1 ppm		See Chart Below	20 ppm/ 0.01% / 0.1% / 1% Vol.	
Lower Detectable Limit (LCD)	0.1% Vol.	2 % of Full Scale				
Response Time (T-90)	35 seconds or less			60 seconds or less		30 Seconds or less
Max Current Draw (24 VDC)	125 mA with alarm 1 and alarm 2 active and all relays energized					160 mA with alarm 1 and alarm 2 active and all relays energized
Life Expectancy	2 to 3 years with normal service					5 years +
Accuracy (which ever is greater)	± 0.5% Vol. O ₂	± 5% of reading or ± 2 ppm H ₂ S	± 5% of reading or ± 5 ppm CO	± 10% of reading or ± 5% of full scale		± 5% of reading or ± 2% of full scale
Alarms						
Alarm Settings	Two fully programmable alarm set points, increasing / decreasing, latching / self-resetting, on delays, off delays, normally energized or de-energized,					
Indication	Visual LEDs. Alarm 1: Amber; Alarm 2: Red; Fail: Red					
Relays	5 Amp form 'C' contacts for alarm 1, alarm 2, and fail					
Physical						
Dimensions	Height: 6.2" (158 mm)*, Width: 5.66" (144 mm), Depth: 4.86" (124 mm) (Height measurement does not include sensor)					
Display	Alphanumeric OLED display, 8 characters per line; 2 lines for gas concentration readout, plus user-friendly calibration and setup					
Sensor Rating	Non explosion proof construction, designed for Class I, Div. 2, Groups B, C, D (no certification)					
Housing J-Box	NEMA 4X, explosion proof, watertight, cast aluminum with o-ring seal and epoxy powder coating					
Controls	Magnet used for calibration functions. Calibrates without opening the housing. Internal push-button controls also available for calibration and setup					
Sensor	Aluminum / Plastic (non explosion proof)					
Operating Environment						
Operating Temperature	-4°F to 113°F (-20°C to 45°C)	-40°F to 104°F (-40°C to 40°C)	23°F to 104°F (-5°C to 40°C)	14°F to 104°F (-10°C to 40°C)	-40°F to 122°F (-40°C to 50°C)	
Relative Humidity	5 - 95% RH non-condensing					
Location	Indoor or outdoor					
Operating Voltage	10 VDC - 30 VDC					
Outputs						
Analog	Linear 4-20 mA signal, into 1000 ohms impedance max (24DC), 0 - 500 ohms max (12VDC) corresponding to 0 - full scale					
Digital	Modbus RTU output standard, fully configurable, 2-wire RS-485, 1200 to 19.2k baud					
Controllers	Beacon 110, Beacon 200, Beacon 410A, Beacon 800, Beacon 3200 as well as most DCS / PLC systems					
Warranty	One year materials and workmanship					

* Toxics Chart cont. on next page

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Toxic Transmitter Sensor Ordering Information



ESM-01 Sensor



CT-7 Sensor

* Sensor being phased out, use CT-7 type when possible.

Part Number With J-Box	Gas	Range	Resolution	Sensor Type
65-2670XL-NH3-75	Ammonia (NH3)	0 -75.0 ppm	0.1 ppm	CT-7
65-2670XL-NH3-1	Ammonia (NH3)	0 -100 ppm	1 ppm	CT-7
65-2670XL-NH3-2	Ammonia (NH3)	0 - 200 ppm	1 ppm	CT-7
65-2670XL-NH3-5	Ammonia (NH3)	0 - 500 ppm	1 ppm	CT-7
65-2648XL-AsH3	Arsine (AsH3)	0 - 1.50 ppm	0.1 ppm	ESM - 01
65-2670XL-CL2-3	Chlorine (Cl2)	0 - 3.00 ppm	0.01 ppm	CT-7
65-2670XL-CL2-5	Chlorine (Cl2)	0 - 5.00 ppm	0.01 ppm	CT-7
65-2670XL-CL2-10	Chlorine (Cl2)	0 - 10.00 ppm	0.1 ppm	CT-7
65-2670XL-CLO21	Chlorine Dioxide (ClO2)	0 - 1.00 ppm	0.01 ppm	CT-7
65-2670XL-CLO21	Chlorine Dioxide (ClO2)	0 - 1.00 ppm	0.01 ppm	CT-7
65-2670XL-CLO23	Chlorine Dioxide (ClO2)	0 - 3.00 ppm	0.01 ppm	CT-7
65-2670XL-CLO25	Chlorine Dioxide (ClO2)	0 - 5.00 ppm	0.01 ppm	CT-7
65-2670XL-HCN15	Hydrogen Cyanide (HCN)	0 - 15.0 ppm	0.1 ppm	CT-7
65-2670XL-NO2	Nitrogen Dioxide (NO2)	0 - 15.0 ppm	0.1 ppm	CT-7
65-2648XL-PH3	Phosphine (PH3)	0 - 1.00 ppm	0.01 ppm	ESM -01
65-2670XL-SO210	Sulfur Dioxide (SO2)	0 - 6.00 ppm	0.01 ppm	CT-7

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