



STAND ALONE EXPLOSION PROOF TRANSMITTER

Gas Detection For Life

M2 Series



Features

- Operates independent of a controller
- Direct digital readout on backlit LCD
- Available for LEL, H₂S, CO, and O₂
- 4-20 mA & digital Modbus outputs standard
- Non-intrusive calibration via magnetic wand
- 2 fully programmable alarm relays & fail relay
- H₂ specific LEL version available
- Infrared combustible version available
- Patented water repellent sensor coating
- User friendly setup push buttons & LCD menus
- Intrinsically safe, CSA, C/US classified

Industry Applications

- Petrochemical plants
- Refineries
- Offshore drilling platforms
- Water & wastewater treatment plants
- Pulp & paper mills
- Gas, telephone, & electric utilities
- Parking garages
- Manufacturing facilities
- Steel
- Automotive

The RKI M2™ is a state-of-the-art transmitter that can operate as an independent, stand-alone system or as part of a system connected with an analog or digital signal to virtually any controller, PLC, or DCS. The M2 series detects LEL combustibles, oxygen, hydrogen sulfide, or carbon monoxide. It utilizes a magnetic wand technique for performing non-intrusive calibration. The M2 provides an automatic zero drift correction feature, which results in more stable readings and reduces the need for adjustments due to sensor aging.

The housing of the M2 does not need to be opened for zeroing or calibration, making it unnecessary to declassify the area for routine maintenance. It is designed so that a complete field calibration can be performed by one person. The stainless steel flame arrestor housing that covers the sensor (LEL, H₂S, CO, or XP Oxygen) is water repellent with a special patented water resistant coating.

The transmitter provides a 4-20 mA output in addition to a Modbus digital output. It also has two levels of alarm with relays, plus a fail alarm with a relay. A digital display of the gas concentration, as well as alarm and status lights can be viewed through the front window.

The M2 represents the latest leading edge technology in sensor / transmitters today.

M2 Series

Sensors		LEL		O₂	H₂S	CO
Types	Catalytic	IR (infrared)		Galvanic cell	Electrochemical	Electrochemical
Measuring Ranges	0 - 100 % LEL		0 - 25.0 % Vol		0 - 100 ppm	0 - 300 ppm
Weather Resistant	Patented water repellent sensor coating		—		Patented water repellent sensor coating	
Outputs						
Analog	4-20 mA signal, into 500 ohms impedance max, corresponding to 0 - full scale					
Digital	Modbus RTU output standard, fully configurable, 2-wire RS-485, 1200 to 19.2k baud					
Alarms						
Alarm Settings	Fully programmable alarm setpoints, increasing / decreasing, latching / self-resetting, on delays, off delays, normally energized or de-energized, programmable deadband, programmable smoothing filter					
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: 8.5" (215 mm), Width: 5.2" (132 mm), Depth: 4.5" (114 mm)					
Display	Alphanumeric display with backlighting. 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 4, 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	-4°F ~ 122°F (-20°C ~ 50°C)					
Relative Humidity	5 - 95% RH non-condensing					
Location	Indoor or outdoor. Explosion proof for Class I, Div. 1, Groups B, C, and D. (Oxygen available in non XP version also)					
Operating Voltage	19 VDC - 30 VDC					
Approvals	IR LEL sensors: UL approval standard Catalytic LEL sensors: UL standard, CSA optional H ₂ S and CO sensors: CSA Standard					
Warranty	One year material and workmanship					

Note:

IR LEL sensors are recommended for applications where catalytic sensors historically do not hold up, such as areas where catalytic poisons may be present (for example: silicone vapors, high H₂S, or halogenated hydrocarbons). The IR LEL sensor is especially well suited for wastewater treatment plants.

Specifications subject to change without notice.

Made in the USA



A9812



ISO 9001:2000



certified
AIR SAFETY

Certified AIR SAFETY

2233 NW 23rd Ave.

Portland, OR 97210

Tel: 503-226-2109

Fax: 503-226-0988

info@certifiedAIRSAFETY.COM

www.certifiedAIRSAFETY.COM