

SIR100 Infrared LEL Gas Detector

Advanced Optics Technology for the Detection of LEL/Combustible Gases

The SIR100 Infrared Combustible gas detector uses the latest in optical infrared sensor technology. There are no mirrors to be fogged, fouled, misaligned, cleaned, or heated for de-fogging. A duct-mount configuration is also available.

- Full combustible range 0 to 100 % LEL
- Operating temperature range -40 °C to +75 °C (-40 °F to +167 °F)
- Sintered stainless steel filter protects optics from environmental contaminants
- Gas curve selection feature
- Immune to poisoning, long sensor life
- Intuitive menu system, only periodic calibration required, low maintenance
- Explosion-proof, Class I, Division/Zone 1 Approved



SIR100 Infrared LEL Gas Detector

- 10.5 to 32 VDC operating voltage
- CSA Certifications

Features and Benefits

The Millennium SIR100 Series is a field-proven line of industrial gas detectors specifically engineered to provide fast, accurate and continuous monitoring of flammable gases in extreme environments.

The SIR100 gas detector provides low maintenance with long calibration intervals, field-proven sensor design is backed by one of the longest warranties in the industry, long term reliability, and third-party approvals.

Enclosed in a compact and explosion-proof housing, the Millennium transmitter features a power disconnect switch to simplify maintenance, a clearly visible scrolling LED display for calibration and configuration, and meter jack for easy current loop monitoring.

The transmitter includes internal push button controls as well as an external magnetic switch for non-intrusive controls during calibration and configuration.

The Millennium SIR100 was designed for both 12 or 24 VDC systems and is available with Analog, Relay and RS 485 Digital Modbus® RTU output configuration.

Specifications

Table 1 - SIR100 Infrared LEL Gas Detector

Millennium SIR100 Sensor	
Range of Detection	0 to 100 % LEL (propane, methane, butane)
Linearity/ Repeatability	±3 % LEL/±2 % LEL
Response Time	T20 < 5 s T40 < 7 s
Accuracy	±3 % LEL up to 50 % LEL ±5 % LEL above 50 % LEL
Temperature Range	-40 °C to +75 °C (-40 °F to +167 °F)
Enclosure Material	Anodized/Powder coated aluminum (optional stainless steel)
Certifications	Class I, Division 1, Groups BCD T5. Ex d IIB+H2 T5. CSA C22.2 No. 152
Sensor Warranty	2 Years

Order Information			
Millennium Premium	Output(s) Type	Infrared Sensor	Options/ Accessories
MLP Premium	-A- Analog Only AR- Analog and Fault, Low and High Alarm Relays -AD- Analog and Digital	SIR100 0-100 % LEL	-SEP Sensor Separation Kit -SS Stainless Steel SIR100-BUGS Bug Screen
Order Example: MLP-A-SIR100-SEP Millennium Premium Infrared Combustible Gas Detector with 4-20 mA output only and optional Sensor Separation Kit included.			

Transmitter/Controller		
Specification	MLP "A" Version	MLP "AR" Version
Operating Voltage Range	10.5 to 32.0 VDC	
Power Consumption (at 24 VDC)	Nominal 126 mA, 3.02 W Maximum 141 mA, 3.38 W	Nominal 140 mA, 3.36 W Maximum 188 mA, 4.5 W
Enclosure Material	Powder Coated Copper Free Cast Aluminium (316 Stainless Steel Optional)	
Operating Temperature and Humidity Range	-40 °C to +85 °C (-40 °F to 185 °F) 0 to 95 % Relative humidity, non-condensing	
Output(s)	Analog 4-20 mA: Max. loop impedance of 800 Ohms at 32 VDC or 150 Ohms at 10.5 VDC. Isolated or non-isolated loop supply	Relays: 3 Form C contacts rated 5 Amp at 30 VDC/250 VAC
Weight	3.2 Kg (7.0 lbs)	
Electronics Warranty	3 Years	
Alpha-numeric Display	Bright 8-digit LED scrolling type display - English, French, and Spanish languages available	
Unique Features	Local Power Switch and Meter Test Jacks on faceplate for easy maintenance Easy to read instructions for one person Non-Intrusive calibration	
Certifications	<ul style="list-style-type: none"> ▪ Class I, Division 1, Groups BCD Temperature code T5 ▪ Ex IIB + H2 T5 (Class I, Zone 1 Group IIB + H2 T5) ▪ Maximum Operating Ambient of 85 °C. Enclosure Type 4X ▪ IIG EEx d IIB + H2 T5 (-40 °C ≤ Tamb ≤ 85 °C) 	

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