SIR100 Infrared LEL Gas Detector

Advanced Optics Technology for the Detection of LEL/Combustible Gases

The SIR1100 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 -50 °C to +75 °C (-58 °F to +167 °F)**

■ **Sintered Stainless Steel Filter Protects Optics from Environmental Contaminants**

■ **Gas Curve Selection Feature**

■ **Immune to Poisoning, Long Sensor Life**

■ **Intiutive Menu System, Only Periodic Calibration Required, Low Maintenance**

■ **Explosion-proof, Class I, Division/Zone 1 Approved**

■ **CSA, NRTL/C and IEC Certifications**

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■ **10.5 to 32 Vdc Operating Voltage**

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 while maintaining a Class I Division 2 rating 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 V dc systems and is available with Analog, Relay and RS 485 Digital Modbus® RTU output configuration.

NET SAFETY
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SIR100 Infrared LEL Gas Detector
Specifications

Millennium SIR100 Sensor

Range of Detection	0 to 100 % LEL (propane, methane, butane)
Linearity/ Repeatability	±3 % LEL / ±2 % LEL
Response Time	T20 = 5 sec T40 = 7 sec
Accuracy	±3 % LEL up to 50 % LEL ±5 % LEL above 50 % LEL
Temperature Range	Operational: -55 °C to +75 °C (-67 °F to 167 °F) Certified: -40 °C to +75 °C (-40 °F to +167 °F)
Enclosure Material	Anodized / Powder coated aluminum (optional stainless steel)
Certifications	CSA and NRTL/C certified for hazardous locations, Class I, Division 1, Groups B, C and D T5. IEC Rating Ex d IIB+H2 T5. Performance certified to CSA C22.2 No. 152
Sensor Warranty	5 Years

ORDERING INFORMATION

Millennium Premium	Output(s) Type	Infrared Sensor	Options / Accessories
MLP Premium	**-A-** Analog Only **-R-** Analog and Fault, Low and High Alarm Relays **-AD-** Analog and Digital	**SIR 100** 0–100 % LEL	**-SEP** Sensor Separation Kit **-SS** Stainless Steel **SIR100-BUGS** Bug Screen **DUCTM-LEL-SIR100** Duct Mount Assembly

Order Example: MLP-A-SIR100-SEP
Millennium Premium Infrared Combustible Gas Detector with 4–20 mA output only and optional Sensor Separation Kit included.

Millennium Transmitter/Controller

Specification	Premium
Operating Voltage Range	10.5 to 32.0 Vdc
Power Consumption (at 24 V dc)	Nominal 140 mA/ 3.36 W Maximum 188 mA/ 4.5 W
Operating Temperature and Humidity Range	Operational -50 °C to +85 °C (-58 °F to +85 °F) / Certified -40 °C to +85 °C (-40 °F to 185 °F) 0 to 100 % Relative humidity, non-condensing
Output(s)	**Analog 4–20 mA:** Max. loop impedance of 800 Ohms at 32 V dc or 150 Ohms at10.5 V dc. Isolated or non-isolated loop supply
	Relays: 3 Form C contacts rated 5 Amp at 30 Vdc / 250 V ac **Digital RS485:** Modbus RTU protocol
Enclosure Material	Powder coated Copper Free Cast Aluminum (316 Stainless Steel Optional)
Weight	3.5 Kg (9.7 lbs)
Display	Power and Status LED Indicators
	8-digit LED Scrolling Alphanumeric Display English, Spanish or French available
Electronics Warranty	3 Years
Non-Instrusive Calibration	■
Local Test Meter Jacks	■
Local Power Switch	■
Certifications	▪ CSA and NRTL/C certified for hazardous locations, Class I, Division 1, Groups B, C and D, Temperature code T5. NEMA 4X ▪ IEC Rating Ex IIB+H2 T5 (Class I, Zone 1 Group IIB+H2 T5). Maximum Operating Ambient of 85 °C. Enclosure Type 4X.
	NOTE: Electronics only - CSA and NRTL/C certified for hazardous locations Class I, Division 2 Groups A, B, C and D.

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