SHOWN WITH SEC MILLENIUM SENSOR

SEC 3100
Digital Gas Transmitter

Features

- *Explosion Proof*
- *Back lighted LCD Display*
- *Low Cost*
- *Plug and play toxic, oxygen and combustible gas sensors*
- *Self-Check system*
- *4-20 mA output*
- *RS-485 Interface (Isolated)*
- *Alarm and fault relays*
- *Non-intrusive configuration*
- *Non-intrusive calibration*
- *Removable, non-volatile, time stamped data logging memory stick*
- *Optional IS barrier*
- *Digital communication link to SEC 3000 and SEC Millenium Gas Detectors*
- *Multi port housing for easy installation*

Applications

- *Petrochemical Refineries*
- *Compost Facilities*
- *Semi-Conductor Industry*
- *Mining*
- *Pulp and Paper Mills*
- *Oil Rig Platforms*
- *Buildings*
- *Automotive Industry*
- *Engine Test Rooms*

- *LNG & LPG Facilities*
- *Sewage Industry*
- *Water Treatment Plants*
- *Parking Garages*
- *Chemical Industry*
- *Nuclear Industry*
- *Fertilizer Industry*
- *Tunnels*
- *Medical Facilities*
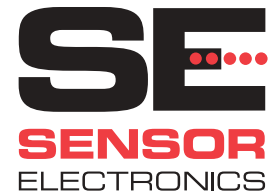
Operation / Description

The SEC 3100 provides interface capabilities for the SEC 3000 Gas Detector and SEC Millenium Infrared Gas Detectors.

The SEC 3100 features:

- Back lighted LCD for Gas Level/Unit Parameter display
- Four (4) configurable Alarm/Fault Relays
- An isolated RS485 Modbus interface provides reliable communication in noisy environments and eliminates "Ground Loop" problems.
- Three magnetic switches for local configuration and calibration
- Time stamped data logging using a removable non-volatile memory module. Module can be removed from the unit to allow remote data downloading and data archiving.

An optional IS barrier allows "hot" sensor replacement in rated locations. This allows the user to install pre-calibrated/pre-configured sensor boards without removing unit power while maintaining EX rating. Removable circuit board stack and detachable connectors facilitate field-wiring installation.
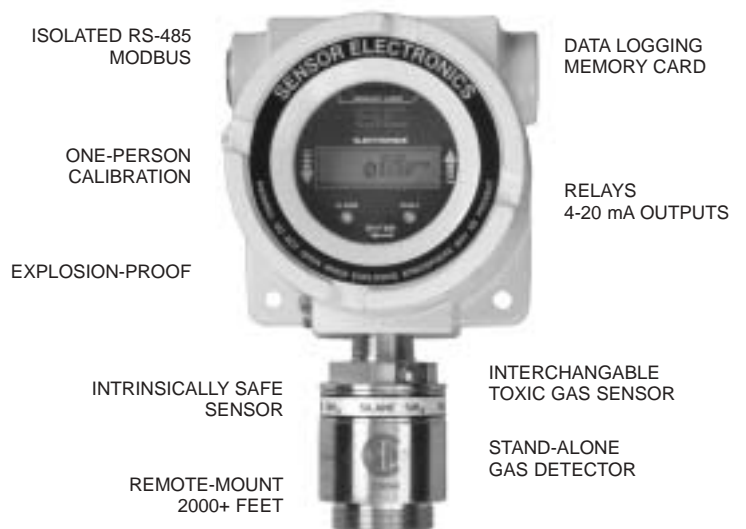
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Digital Gas Transmitter

SE SENSOR ELECTRONICS

SPECIFICATIONS

Detection Method
Toxic Gases - Electrochemical
Combustible - Infrared

Gas Sensor Compatibility
SEC 3000 & SEC Millenium

Output (digital)
RS-485 LAN (Isolated)

Output (optional relays)
4-20 mA (source type), max. 1000 ohm load
at 24 VDC supply voltage

Display
Back Lighted LCD
LEDs for relay status

Operating Voltage
18-32 VDC

Operating Current (No Sensor)
125mA Max @ 24 VDC

Power Consumption SEC 3100 (Sensor)
Toxic & O2 (SEC 3000) - 4W Max
HC & CO2 (SEC Millenium) - 9W Max

Temperature Rating
-40º to +70º

Humidity
0-99% RH (Non-condensing)

Housing Construction
Epoxy coated aluminum

Certification
CSA/NRTL Pending

Housing Dimensions
5.25 (W) x 5.30 (L) x 4.95 (H) inches
{131 (W) x 132 (L) x 124 (H) mm}

Weight
Approximately 6 lbs. {2.8 Kg.}

Partial Gas List

Oxygen	(O2)	Carbon Monoxide	(CO)
Hydrogen	(H2)	Germane	(GeH4)
Ammonia	(NH3)	Silane	(SiH4)
Nitric Oxide	(NO)	Phophine	(PH3)
Bromine	(Br2)	Sulfur Dioxide	(SO2)
Fluorine	(F2)	Nitrogen Dioxide	(NO2)
Arsine	(AsH3)	Chlorine Dioxide	(ClO2)
Ozone	(O3)	Hydrogren Sulfide	(H2S)
Chlorine	(Cl2)	Hydrogen Fluoride	(HF)
Phosgene	(COCl2)	Hydrogen Chloride	(HCl)
Diborane	(B2H6)	Hydrogen Cyanide	(HCN)
Formaldehyde	(HCHO)	Hydrogen Selenide	(H2Se)
Ethylene Oxide	(ETO)	Hydrogen Peroxide	(H2O2)
Combustible	(HC)	Carbon Dioxide	(CO2)

Current Output		Status
0.0	mA	Unit Fault
0.8	mA	Unit warm up
1.2	mA	Zero drift fault
1.6	mA	Calibration fault
2.0	mA	Unit spanning
2.2	mA	Unit zeroing
4-20	mA	Normal measuring mode
4.0	mA	Zero gas level
5.6	mA	10% Full Scale
8.0	mA	25% Full Scale
12	mA	50% Full Scale
16	mA	75% Full Scale
20	mA	Full scale
>20	mA	Over-range

ISOLATED RS-485 MODBUS

ONE-PERSON CALIBRATION

EXPLOSION-PROOF

INTRINSICALLY SAFE SENSOR

REMOTE-MOUNT 2000+ FEET

DATA LOGGING MEMORY CARD

RELAYS 4-20 mA OUTPUTS

INTERCHANGABLE TOXIC GAS SENSOR

STAND-ALONE GAS DETECTOR

SEC 3100 shown with SEC 3000 Sensor