SE SENSOR ELECTRONICS

SEC 3120
Digital Gas Transmitter
Dual Sensor

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Features

- *Dual Sensor Interface Capability*
- *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*
- *Digital communication link to SEC 3000, SEC 3300, SEC 5000 and SEC Millenium Gas Detectors*
- *Multi port housing for easy installation*

Applications

- *Petrochemical Refineries*
- *CNG 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*
- *Compressors*
- *Tunnels*
- *Medical Facilities*

Operation / Description

The SEC 3120 provides dual interface capabilities for any and all SEC gas detectors.

The SEC 3120 features:
- Dual sensor interfacing to enable like-sensor redundancy or control or dissimilar sensor types
- Back lighted LCD for Gas Level/Unit Parameter display
- Four (4) Alarm/Fault Relays configurable for alarm set points, latching and multi-sensor relay logic
- An isolated RS485 Modbus interface provides reliable communication in noisy environments and eliminates "Ground Loop" problems
- Three magnetic switches for local configuration and calibration without compromising explosion proof protections
- 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.

Removable circuit board stack and detachable connectors facilitate field-wiring installation.

SEC 3120 Digital Gas Transmitter - Dual Sensor

Specifications

Compatible Sensors
SEC 3000 / SEC 3300 Toxic Detector
SEC Millenium IR Combustible
SEC 5000 IREvolution IR Combustible

Operating Voltage
24 VDC Nom (18-32 VDC Range)

Operating Current (No Sensor)
314mA Max @ 24 VDC - All Options
w/Relays Only: 90mA Max @ 24V
 100mA Max @ 18V
No Options: 50mA @ 24V
 65mA Max @ 18V

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

Power Consumption (SEC 3120 only)
Nominal (no options, 24V): 1.2 W
Relays Option: Add 1 W
Heater option: Add 5.9 W

Ambient Temperature Range (Ta):
-40˚C to +40˚C

Humidity
0-99% RH (Non-condensing)

Housing Construction
Epoxy coated aluminum

Certification
CSA/NRTL Class 1, Div. 1, Groups B,C,D T5
IECEx: Ex d IIC T5 Gb
UL 2075 (Must be used with UL2075 Approved SEC Millenium)

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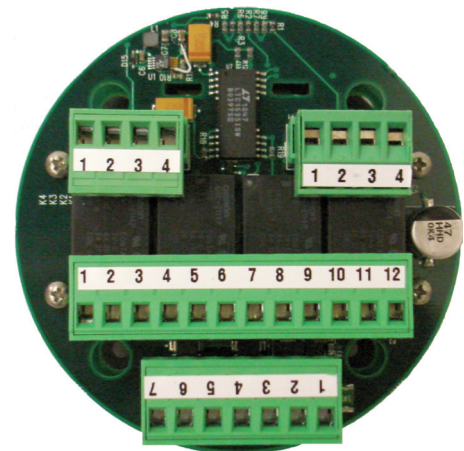5.25 (w) x 5.30 (L) x 4.95 (H) inches
{131 (W) x 132 (L) x 124 (H) mm}

Weight
Approximately 6 lbs. {2.8 Kg.}

Part Numbers
SEC 3120-000-000000 (without relays)
SEC 3120-001-000000 (with relays)

Partial Gas List

Oxygen	(O2)	Carbon Monoxide	(CO)
Hydrogen	(H2)	Germane	(GeH4)
Ammonia	(NH3)	Silane	(SiH4)
Nitric Oxide	(NO)	Phosphine	(PH3)
Bromine	(Br2)	Sulfur Dioxide	(SO2)
Fluorine	(F2)	Nitrogen Dioxide	(NO2)
Arsine	(AsH3)	Chlorine Dioxide	(ClO2)
Ozone	(O3)	Hydrogen 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)

SEC 3120 Termination Board