SEC 3120
Digital Gas Transmitter
Dual Sensor

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-intruside calibration*
- *Removable, non-volatile, time stamped data logging memory stick*
- *Optional IS barrier*
- *Digital communication link to SEC 3000, SEC 5000 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 3120 provides dual interface capabilities for the SEC 3000 Gas Detector family, SEC Millenium and SEC 5000 Infrared Gas Detector families.

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.

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.

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
390mA Max @ 32 VDC

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 Consuption (SEC 3120 only)
Nominal (no options, 24V): 1.1 W
Relays Option: Add 0.8 W
Heater option: Add 5.9 W
Max (all options, 32 V):   12.48 W

Temperature Rating
-40º to +70º

Humidity
0-99% RH (Non-condensing)

Housing Construction
Epoxy coated aluminum

Certification
CSA/NRTL Class 1, Div. 1, Groups B,C,D T5
IECEx Class 1, Zone 1, Group IIC

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)	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)