



CONSPEC®

INNOVATION THAT DIGS DEEPER.

OPTIO IS



Optio IS Single/Dual Gas Monitor

For over 50 years, Conspec has pioneered the design, development, and manufacturing of environmental and atmospheric monitoring, process control and safety technology relied upon by mining, industrial, oil & gas, and commercial operations all over the world.

Conspec's NEW Optio IS Dual Gas Monitor featuring multi sensor support, enhanced alarming capabilities, and multiple I/O options provide solutions that can withstand the harshest environmental and operational conditions. Where other monitors often fail, the Optio IS Dual Gas Monitor flourishes, reducing downtime and increasing productivity, without compromising safety.

The Optio IS Dual Gas Monitor has been designed and tested to ensure simple installation, calibration, and maintenance. The innovative design of the Optio IS Dual Gas Monitor combines gas and atmospheric monitoring, I/O support and a wide array of power and communications options to create an all-in-one solution which greatly reduces upfront costs by eliminating the need for multiple devices. Because of the Optio IS Dual Gas Monitor's pending ETL-US, C-ETL, IECEx and ATEX approvals, it will quickly become the gold standard for coal & hard rock mining, and oil & gas well pad operations to ensure protection of their personnel, assets, and productivity.

BENEFITS

- Reliable & Stable Operation
- Eliminates the Need for Multiple Single Point Detectors
- Multiple Sensor Support such as O₂, CO, CO₂, CH₄, Air Velocity, Relative Humidity, Pressure, Temperature, etc.
- Simple Sensor Replacement with No Need for Initial Calibration of Sensor
- Enhanced Alarming Capabilities
- Easy Menu Navigation - Icon Based
- Native Horn/Strobe Support
- Approved for Hazardous Areas - ETL-US, C-ETL, IECEx, ATEX (Pending)

APPLICATIONS

- Coal Mining
- Mining and Tunneling
- Ventilation Management
- Safety Systems
- Fan Control Systems
- Oil and Gas

OPTIO™ IS
Reliability when every second matters.

SENSORS

- Up to two installed sensors per monitor
- Factory preconfigured and calibrated
- Plug-and-Play Electrochemical sensors:
 - CO, O₂, NO₂, NO, H₂S, and more
- NDIR sensors:
 - CO₂, CH₄
- Other sensors:
 - Particulate Matter, Air Velocity, Weather Station, etc.

ALARMS

- 4 Custom Alarm Levels with hysteresis and hold-to-alarm times
- Sensor Fail-High and Fail-Low alarms
- Ability to associate relay outputs with alarm levels from a single sensor, or multiple sensors using logical “AND/OR”

I/O CAPABILITIES (NON IS)

- 6 Relay Outputs (250 VAC, 220 VDC, 2A)
- 6 Multi Function Ports - DI/DO/AI (0-5V, 0-3.6V)
- 2 4-20mA outputs

I/O CAPABILITIES (IS)

- Horn/Strobe Configurable Alarming

INPUT POWER OPTIONS (NON IS)

- 6-30 VDC
- 100 - 240VAC 50/60Hz
- DC Battery Park (wireless operation)

INPUT POWER OPTIONS (IS)

- 6-18 VDC (ETL-US, C-ETL, IECEX, ATEX)
- Battery Power (wireless operation)

COMMUNICATION INTERFACES (IS)

- Conspec Trunk, Conspec Wireless 900MHz/800MHz (pending) Band
- Com Distance up to 6km (3.75miles)

COMMUNICATION INTERFACES (NON-IS)

- Conspec Trunk, RS-485, RS-232, Conspec Wireless 900MHz/800MHz (pending) Band, Wi-Fi, Ethernet, POE, LTE, Leaky Feeder (VHF, UHF)

COMMUNICATION PROTOCOLS

- MODBUS RTU, MODBUS TCP, Conspec Legacy ACCESSOR

CONFIGURATION

- Using IR remote with local LCD menu
- Via MODBUS/Conspec Legacy Accessor Register Map using Conspec OASIS software/Conspec Senturion SCADA

MENU & DISPLAY

- Intuitive menu using graphical LCD
- Password protected (user or admin)
- Quick info screen shows device settings
- Real-time readings of multiple sensors
- Dimmable RGB backlight
- Backlight color indicates monitor status

USER INTERFACE

- IR remote control
- Conspec OASIS Windows configuration software

DIMENSIONS

- 8”x9”x4” @ 5lbs
- 11”x9”x4” @ 5lbs with horn/strobe

POWER CONSUMPTION

- 2mA @ 15VDC (no sensors and 10% Backlight)
- 3mA @ 15VDC (3 EC Sensors and 10% Backlight)
- 3mA @15VDC (1 NDIR CH₄ Sensor and 10% Backlight)
- 9mA @15VDC (1 NDIR CO₂ Sensor and 10% Backlight)
- 12mA @ 15VDC (2 EC, 1Pres/Hum/WB, 1 CH₄, 1 CO₂ and 10% Backlight)
- 33mA @15VDC (1 Pellistor CH₄ Sensor and 10% Backlight)

TEMPERATURE & HUMIDITY RANGE

- -20°C to +40°C, 0-95% RH non-condensing
- Condensation recovery algorithm for NDIR CH₄ sensors

WARRANTY

- One year standard warranty

APPROVALS

- ETL-US: Class I, Division 1, Group D / Class I, Zone 0, Group IIA {AEx ia IIA Ga}/ Class II, Division 1, Group E-G / Class II, Zone 20, Group E-G (Pending)
- C-ETL: Class I, Division 1, Group D / Class I, Zone 0, Group IIA {Ex ia IIA} //Class II, Division 1, Group E-G / Class II, Zone 20, Group E-G (Pending)
- ATEX: I MI Ex ia I Ma/ Ex ia IIA Ga/ Ex ia IIIC Da (Pending)
- IECEX: Ex ia I Ma/ Ex ia IIA Ga/ Ex ia IIIC Da (Pending)
- T4 / T135°C & T ambient: -20°C to +40°C
- SIL-1 (Pending)