



# CONSPEC®

INNOVATION THAT DIGS DEEPER.

## OPTIO G



## Optio G 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 G 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 G Dual Gas Monitor flourishes, reducing downtime and increasing productivity, without compromising safety.

The Optio G Dual Gas Monitor has been designed and tested to ensure simple installation, calibration, and maintenance. The innovative design of the Optio G 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 G Dual Gas Monitor's MSHA approval, it has quickly become the gold standard for coal and hard rock mining 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 O<sub>2</sub>, CO, CO<sub>2</sub>, CH<sub>4</sub>, 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
- Industry Standard Communication Protocols for Easy Integration
- Multiple I/O Options
- Approved for Hazardous Areas - MSHA (Specific Configuration)

### APPLICATIONS

- Coal Mining
- Mining and Tunneling
- Ventilation Management
- Safety Systems
- Fan Control Systems
- Air Quality Systems
- Post Blast Re-entry

**OPTIO™ G**  
Reliability when every second matters.

### SENSORS

- Up to two installed sensors per monitor
- Factory preconfigured and calibrated
- Sensor extension up to 100ft (30m)
- Plug-and-Play Electrochemical sensors:
  - CO, O<sub>2</sub>, NO<sub>2</sub>, NO, H<sub>2</sub>S, and more
- NDIR sensors:
  - CO<sub>2</sub>, CH<sub>4</sub>
- 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 (05V, 0-3.6V)
- 2 420mA outputs

### I/O CAPABILITIES (NON-IS)

- Horn/Strobe Configurable Control

### INPUT POWER OPTIONS (NON IS)

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

### INPUT POWER OPTIONS (IS)

- 6-15 VDC (MSHA)
- Battery Power (wireless operation)

### COMMUNICATION INTERFACES (IS)

- MSHA: Conspec Trunk, RS-485, Conspec Wireless 900MHz Band (pending)

### 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
- 4 Local Tactile Buttons
- Conspec OASIS Windows configuration software

### DIMENSIONS

- 9"x9"x5" @ 6lbs
- 12"x9"x5" @ 6lbs with horn/strobe

### POWER CONSUMPTION

- 2mA @ 15VDC (no sensors and 10% Backlight)
- 3mA @ 15VDC (3 EC Sensors and 10% Backlight)
- 3mA @15VDC (1 NDIR CH<sub>4</sub> Sensor and 10% Backlight)
- 9mA @15VDC (1 NDIR CO<sub>2</sub> Sensor and 10% Backlight)
- 12mA @ 15VDC (2 EC, 1Pres/Hum/WB, 1 CH<sub>4</sub>, 1 CO<sub>2</sub> and 10% Backlight)
- 33mA @15VDC (1 Pellistor CH<sub>4</sub> Sensor and 10% Backlight)

### TEMPERATURE & HUMIDITY RANGE

- -20°C to +40°C, 10-95% RH non-condensing
- Condensation recovery algorithm for NDIR CH<sub>4</sub> sensors

### WARRANTY

- One year standard warranty

### APPROVALS

- MSHA Part 18
- Commonwealth of Pennsylvania Approval No. BOTE 32-19