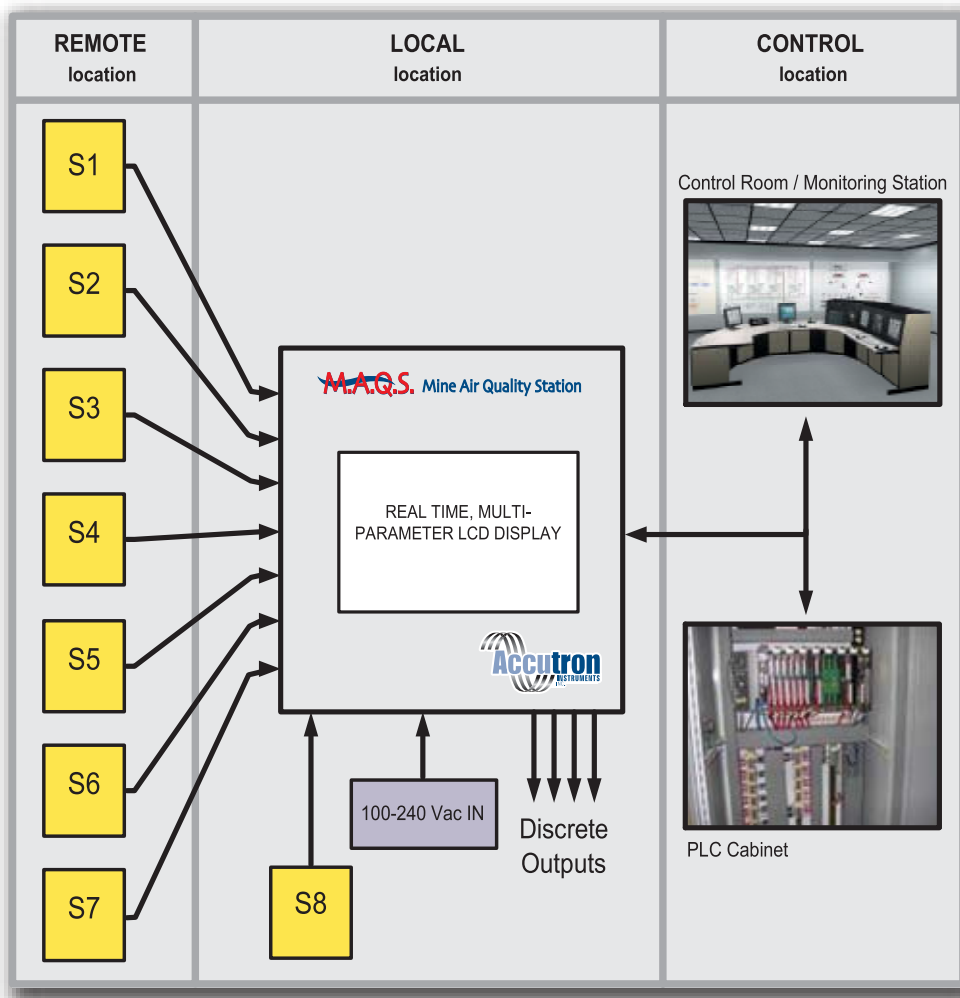


Mine Air Quality Station

Multiple Process Variable Intergration



- Co • O₂ • NO_x • Temp • RH
- Airflow • DP • Dust • Pressure

Mine Wide Air Quality Monitoring and control

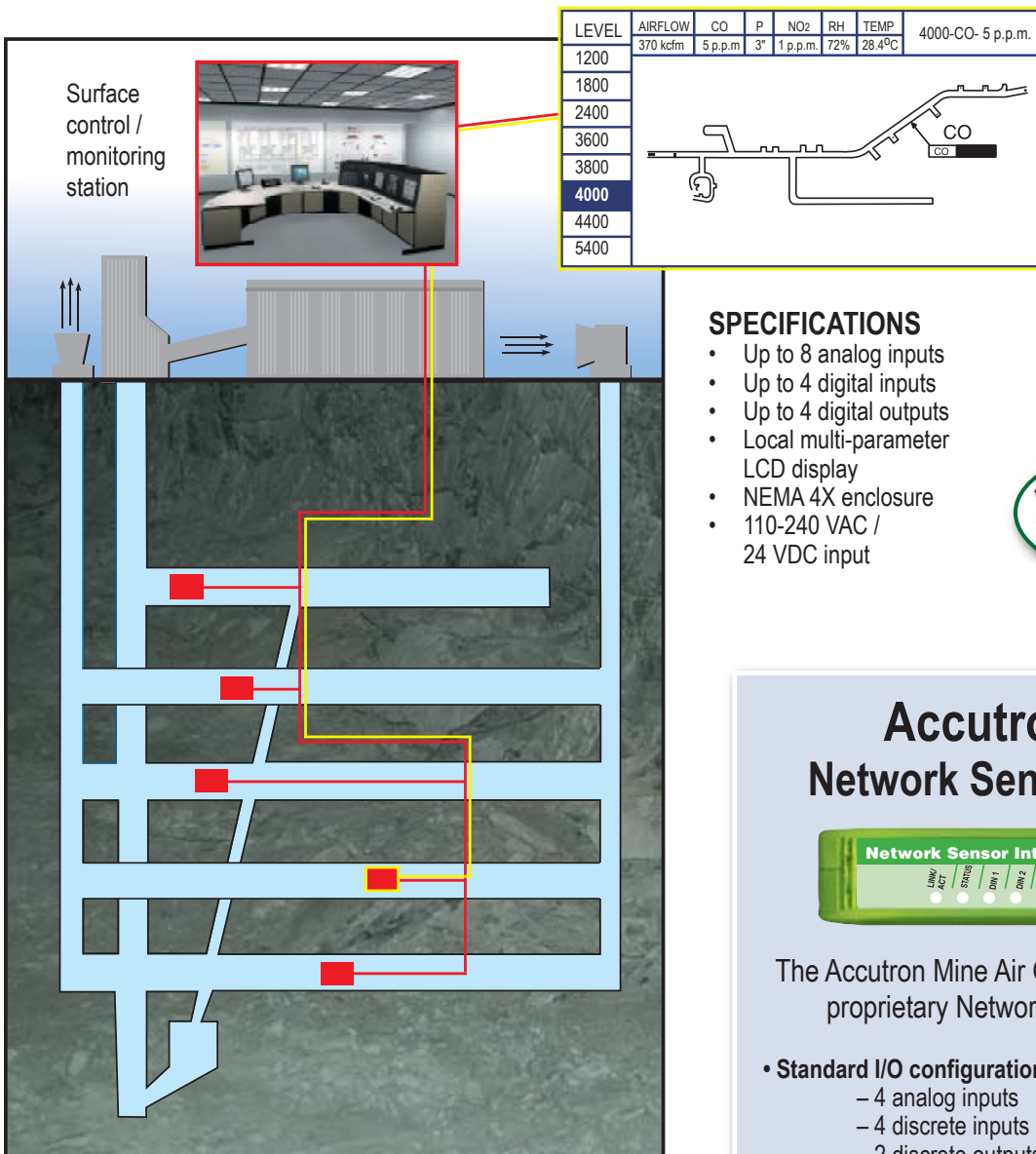
Accutron's Mine Air Quality Station is a complete package that allows continuous, real time monitoring of multiple ventilation process'. The first step in advanced ventilation automation solutions.

Features & Benefits

- Integrated Ventilation Network
- Record and Trend Events
- Develop Ventilation cycles according to mining activity
- Ventilation Automation
- Vent on Demand
- Health & Safety

● LOCAL CONTROLLER / INTERFACE

“Accutron’s Mine Air Quality Stations are completely pre-wired with your selected process monitoring equipment variables for easy installation, with virtually no down time. The station will accept both sourced and loop powered analog devices with supplied cables. Communication output from the MAQS is available as Ethernet TCP/IP, Modbus RS-485 or if necessary direct link to PLC.”




SPECIFICATIONS

- Up to 8 analog inputs
- Up to 4 digital inputs
- Up to 4 digital outputs
- Local multi-parameter LCD display
- NEMA 4X enclosure
- 110-240 VAC / 24 VDC input



Accutron NSI - Network Sensor Interface



The Accutron Mine Air Quality Station uses the proprietary Network Sensor Interface.

- **Standard I/O configuration**
 - 4 analog inputs
 - 4 discrete inputs
 - 2 discrete outputs

COMMUNICATION

- **Ethernet (TCP/IP)**
 - PoE Power Over Ethernet device
- **Modbus (RS-485)**

● REMOTE SENSORS

DTR Smart Gas Sensors

- O₂
- Co
- NO_x
- Methane



Accutron's non-intrusive DTR Series of sensor / transmitters allow complete calibration and configuration to be performed without compromising the explosion proof integrity of the unit.

Available with catalytic, electrochemical or dual sensors, the DTR Series provides a simple and practical solution for combustible or toxic gas monitoring.

- Approved for use in Class I, Div I, Group B, C, D, environments
- Non-intrusive calibration
- Backlit Digital Readout of gas concentration
- One man sensor calibration in hazardous areas without declassification.
- Smart Sensor Interface allows calibration data, sensor type, range and many other variables to be stored inside the sensor head, new or recently calibrated sensors automatically recognized
- NEMA 4 and NEMA 7 rated enclosure
- Two wire 4-20 mA 'sink' mode or Three wire 4-20 mA 'source' mode.

Other Process Sensors

- Temperature
- Relative Humidity
 - Dewpoint
- Diesel Particulate
 - Dust
 - Pressure

All available to establish and maintain proper air quality conditions within the workplace. These measuring elements are available from Accutron and can be incorporated with the MAQS packaging.

Future sensors include both Diesel particulate and Dust concentrators.

These technologies will ensure healthier, safer, more efficient and more effective mining practices.





Airflow Monitors

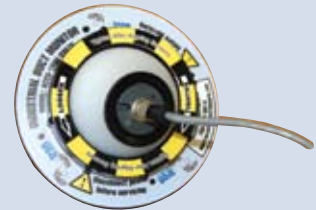
Drift / Tunnel / Raise



Surface Intake / Exhaust Fan



Industrial Duct / Booster Fan



Ultrasonic Airflow Monitoring

Accutron's exclusive suite of airflow monitors is the world leader in airflow measurement technology. These non-obstructive, maintenance free systems are the basis for any ventilation automation application. All three systems are unaffected by dust, temperature and humidity, have a NEMA 4X rated enclosure with stainless steel connectors, a sensor to transmitter separation of up to 1000 feet, user selectable engineering units and use a 4-20mA interface to the mine air quality station system. For more detailed information on these three products, please visit our website. www.accutroninstruments.com.

MINE AIR QUALITY, VENT ON DEMAND AND THE FUTURE OF MINING...

Cost and energy savings for underground mining today and in the future is paramount and will require a certain level of ventilation automation. Basic automation techniques can regulate airflow based on time of day or weekends while mining activity fluctuates. More complex Vent on Demand systems will incorporate traveling personnel and equipment, air quality and air velocity and then regulate air accordingly. Regardless what level of automation is required, only with strategic measurement can a mine effectively and efficiently control its ventilation energy costs.

Energy consumption for ventilation can account for up to 30% of a mine's total operating cost. Accutron Instruments provides the tools necessary to effectively ensure maximum worker safety and maximum energy cost savings.



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