Accutron IS™ for Coal Mines

Intrinsically Safe Ultrasonic Airflow Monitor.

The leader in ultrasonic airflow technology provides highly accurate measurement of velocity, direction and volume of air movement in demanding underground coal mines.

FEATURES

• Ultrasonic time of flight technology in real-time with continuous monitoring
• Digital signal processing, Modbus RTU and analog 4-20mA output.
• Advance detection of false readings and sensor obstructions caused by moving vehicles and personnel
• Robust design capable of operating under extreme temperature and harsh industrial conditions

SYSTEM INCLUDES

• IP66 rated stainless steel control transmitter w/ LCD display
• Ultrasonic transducers (2)
• 100 foot sensor cables w/ connectors
• Drift or Fan mount system

ACCESSORIES

Our systems are supplied with multiple configuration options for a simple installation

• Pre-configured
• Cable set
• Stainless steel mounting plate
• Stainless steel sensor mount

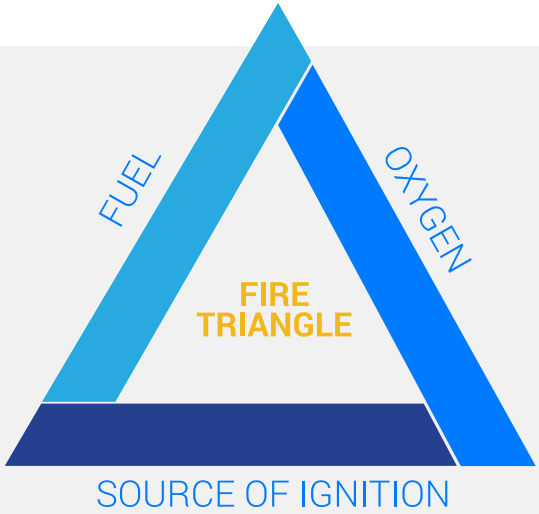
OPERATION

The Accutron IS™ Airflow Monitor is designed to measure airflow, velocity, and volume in underground coal mines. This ultrasonic, time-of-flight instrument is designed to measure flow in underground drifts in addition to primary and booster fans.

Use Intrinsically Safe Accutron IS™ as part of an air quality management system for ventilation control in underground coal mines.

BENEFITS

- Robust, rugged, and non-corrosive design (not affected by temperature, humidity, pressure or dust)
- Simple installation - easy configuration and quick installation reduce project costs and start-up times
- Maintenance free - no moving parts and virtually no calibration
- Accurate, repeatable, bi-directional readings, cross sectional velocity averaging measurements, predominant over single point measurement
- Reliable, designed to perform in extreme noise and hi-velocity applications
- Versatile,pre-programmed with multiple configuration and application options



INTRINSIC SAFETY

Intrinsic safety is built in to the design of any electrical equipment designed for use in hazardous locations. As such the Accutron IS™ is suited for the conditions within a coal mine.

By definition intrinsically safe is the requirement that the device not emit the energy required to ignite combustible materials. Methane and other gas releases can cause a great concern when ignited, though with an IECEx approved Accutron IS™ you can assure yourself that you have one fewer ignition point.

ACCUTRON IS AIRFLOW MONITOR SPECIFICATIONS

TRANSDUCERS

Drift

Measuring Range
-40 m/s to +40 m/s
(no practical limit)

Accuracy
2% F/S or ± 0.05 m/s
(whichever is greater)

Face to face Distance
8 ft min
60 ft max

Fan

Measuring Range
-40 m/s to < 40 m/s
(no practical limit)

Accuracy
2% F/S or ± 0.05 m/s
(whichever is greater)

Face to face Distance
8 ft min
30 ft max

TRANSCEIVER

Electrical ratings

Power Consumption
< 3.3 watts

Power In
12.6 VDC

Communication

Serial
Modbus RTU RS485

Analog Outputs
(1) 4-20 mA

Optional
Modbus TCP with CommTRAX
EtherNet/IP

Physical

Enclosure
Non-corrosive IP66
NEMA 4X with lock
hinges

Operating Humidity
0% to 90%RH

Certifications
IECEx QPS 21.0003X
IECEx MSC 21.0005X
ATEX QPS21ATEX5001X

Safety Ratings
Ex ia I Ma

Operating Temperature
-40°C to 60°C

Measuring Units

Airflow
m/s, ft/min

Volumetric Flow
m3/s, cfm, kcfm

Accutron INSTRUMENTS

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