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FLOWTRAX™ 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 coal mining environments.

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



Accuracy, performance and safety **for coal mines**

FEATURES

- ✓ Ultrasonic time of flight technology in real-time with continuous monitoring
- ✓ Digital signal processing, Modbus RTU and analog 4-20 mA 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

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, bi-directional readings, cross-sectional velocity averaging measurements, predominant to single point measurement
- ✓ Reliable, designed to perform in extreme noise and hi-velocity applications
- ✓ Versatile, pre-programmed with multiple configuration and application options



SYSTEM INCLUDES

- ✓ IP56 rated stainless steel control transmitter w/ LCD display
- ✓ Ultrasonic transducers (2)
- ✓ 100 foot sensor cables w/ connectors
- ✓ Drift or Fan mount accessories

INTRINSIC SAFETY

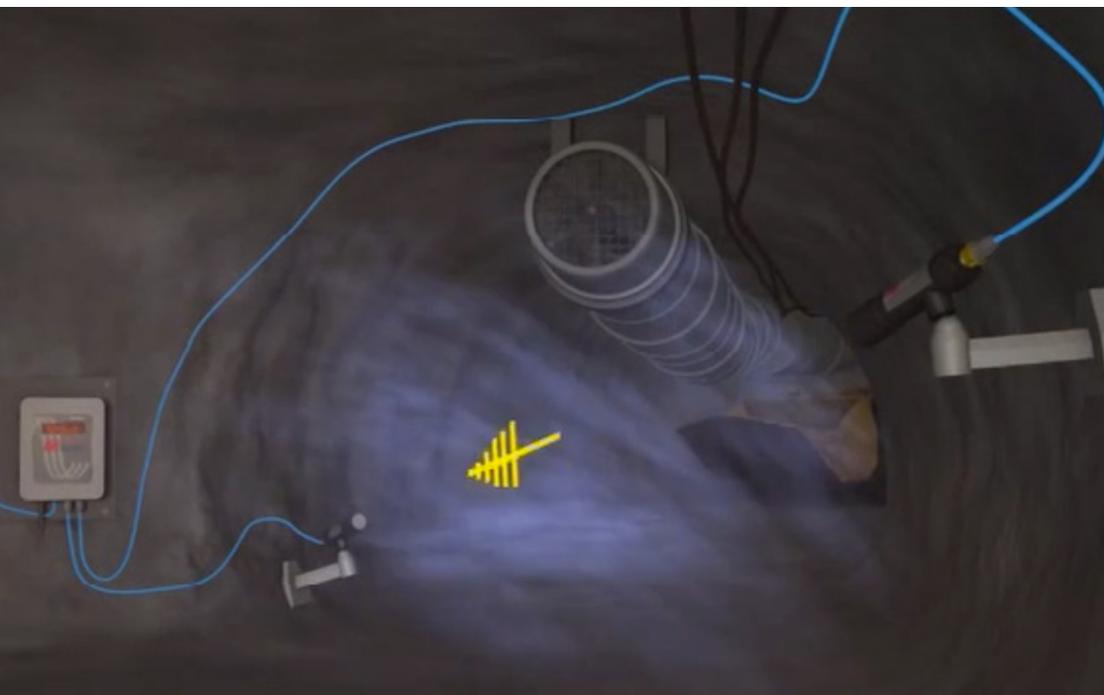
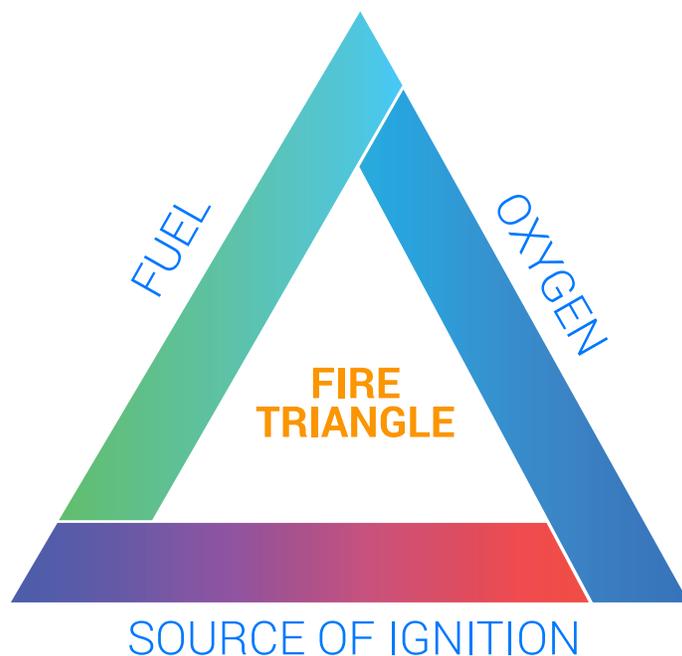
Intrinsic safety is built in to the design of any electrical equipment designed for use in hazardous locations. As such the FlowTRAX is suited for the conditions within a coal mine.

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 FlowTRAX you can assure yourself that you have one fewer ignition point.

ACCESSORIES

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

- ✓ Pre-configured
- ✓ Cable set
- ✓ Stainless steel mounting plate
- ✓ Stainless steel, polycarbonate or aluminum sensor brackets
- ✓ Handheld programmer



OPERATION

The Accutron FlowTRAX Airflow Monitor is designed to measure airflow velocity and volume in a variety of mining and tunnel applications. This ultrasonic, time-of-flight instrument is designed to measure flow in underground tunnels in addition to primary and booster fan flow output.

SPECIFICATIONS

Process	Airflow	Volumetric Flow	Optional with ClimaTRAX probe
Measuring Units	m/s, ft/min,	m ³ /s, cfm, kcfm	Temperature (°C, °F) Pressure (psi, mbar, kpal, in/H ₂ O) Humidity (RH%) & 12 more parameters

Ranges	Measuring Range	Accuracy	Face to face Distance
Drift	0 to < 40 m/s (no practical limit)	2% F/S or ± 0.05 m/s (whichever is greater)	8 ft min 60 ft max

Ranges	Measuring Range	Accuracy	Face to face Distance
Fan	0 to < 40 m/s (no practical limit)	2% F/S or ± 0.05 m/s (whichever is greater)	8 ft min 30 ft max

Ranges	Measuring Range	Accuracy	Face to face Distance
IDM	0 to < 40 m/s (no practical limit)	2% F/S or ± 0.05 m/s (whichever is greater)	2 ft min 8 ft max

Electrical ratings	Power In	Power Consumption	Impedance
	24 VDC 110-240 VAC	< 100 watts	700 Ω Max loop resistance

Communication Interface	Serial	Analog outputs	Optional
	Modbus RTU RS485	{1} 4-20 mA	Modbus TCP with CommTRAX, Ethernet IP*

Physical	Enclosure	Operating Humidity	Operating Temperature
	Non-corrosive IP66 NEMA 4X with lock hinges	0% to 90%RH	-40°C to 70°C



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