mine accelerometer
triaxial, biaxial or uniaxial

Features

- Low frequency sensor
- Aluminium body
- High resistance to water ingress
- High pressure application
- High precision, low noise
- Excellent reliability
- Various frequency options available
- Ultra low noise high sensitivity
- Low pass filtered
- Reverse wire protected

Applications

ES&S offers a comprehensive range of borehole accelerometers that are primarily designed and applied in mine seismology and ground vibration monitoring. Three different configurations are available uniaxial, biaxial or triaxial. Accelerometers are preferred where high frequency, high acceleration ground motion is evident. Individual borehole accelerometer units can be permanently grouted into position whereby they can be monitored remotely. Our seismic sensors are compatible with most seismic recorders currently established on the market.

While mine seismicity and ground vibration are the dominant applications for these accelerometers, they have also been successfully adopted in seismic exploration systems.

Mine seismicity monitors specifically rock bursts, block caving, goafing, blasting and slope stability. General vibration monitoring of tunnels, dams, slopes, volcanos and reservoirs.

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Technical Specifications

Resonance Frequency	15kHz	**Operating Temperature**	-50° to 120°C
Sensitivity	+5%, 25o C 500mV/g	**Acceleration Range**	10g peak
Amplitude non-linearity	1%	**Power**	18-30 VDC, 2-20mA
Output Impedance	100 ohm	**Output Voltage**	10VDC
Vibration Limit	250 g	**Shock Limit**	5,000 g
Housing	Aluminium cylinder, 56mm x 260mm		

Operating Principal

ES&S' accelerometers feature excellent reliability, high accuracy, low cost and rugged water proof housing. ES&S custom builds and assembles borehole mine accelerometers specific to your requirements. Our engineers welcome any opportunity to discuss the most suitable configuration for your application.

Borehole sensors can be either grouted or locked into place. The sensors are designed to fit into B or N size boreholes. Data cable is connected to the sensor and runs up the borehole where it's plugged into the data acquisition system.

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