



Hazardous Area Approved Triaxial Accelerometer

Designed to withstand the challenges of route-based PdM in hazardous environments

Highlights

- Ability to take measurements on three axes (horizontal, vertical and axial) at one time from a single mounting location allows for increased speed of data collection and more consistent readings
- Hazardous area approval provides an intrinsically safe, non-sparking sensor to be used with similarly-certified data collectors and analyzers.
- Coiled cable better recoils to its original length, even after repeat use at route-based data collection points.
- Configurable terminating connector allows for easy integration of sensor with a wide variety of multi-channel data collectors and analyzers.
- Top-exit cable orientation and though-bolt mounting design is ideal for spaces with limited clearance.



IMI Sensors has developed Model EX629A11A/006CC, a hazardous area-approved triaxial accelerometer to be used in route-based predictive machinery maintenance in hazardous environments for vibration monitoring. This new model utilizes a shear mode geometry ceramic piezoelectric element in an epoxy-sealed, stainless steel housing with an integral 6ft. polyurethane coiled cable and choice of terminating connector.

Typical Applications

- Machinery foundation troubleshooting
- Multi-axis monitoring of machinery with limited access to mounting areas
- Radial vs. axial motor bearing vibration monitoring
- Structural impulse and response studies

Hazardous Area Approvals:

CSA (Canada & US)

- Ex ic IIC T4 Class I, Div.2, Groups A, B, C, D
- AEx ic IIC T4 Class I, Div.2, Groups A, B, C, D

ATEX

- Ex ic IIC T4 Gc
- Ex nA IIC T4 Gc



**Hazardous Area Approved
Triaxial Accelerometer**
Model EX629A11A/006CC

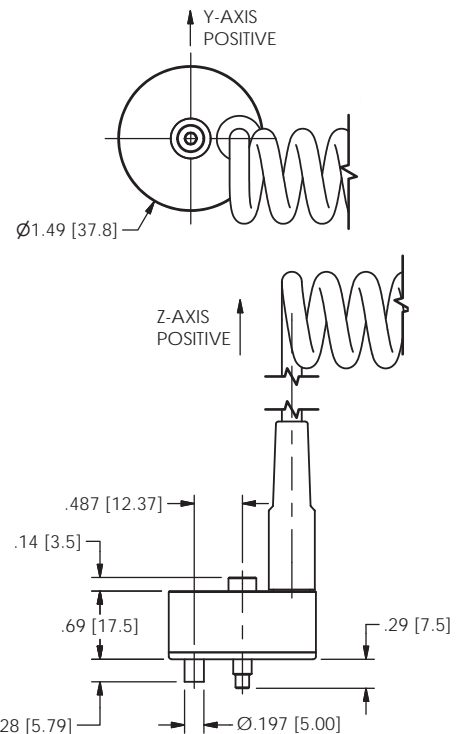
Hazardous Area Approved Triaxial Accelerometer



Technical Specifications	
Model Number	EX629A11A/006CC
Performance	
Sensitivity (± 10%)	100 mV/g 10.2 mV/(m/sec ²)
Measurement Range	±50 g pk ±490.5 m/sec ² pk
Frequency Range (± 3dB) (Z Axis)	2 to 10,000 Hz
Frequency Range (± 3dB) (X or Y Axis)	2 to 7,000 Hz
Resonant Frequency	17,000 Hz
Broadband Resolution	560 µg 5,694 µm/sec ²
Non-Linearity	±1%
Transverse Sensitivity	≤7%
Environmental	
Overload Limit (Shock)	5,000 g pk 49,050 m/sec ² pk
Temperature Range (Operating)	-40 to +176 °F -40 to +80 °C
Hazardous Area Approval	CSA (C-US)
Hazardous Area Approval	ATEX
Enclosure Rating	IP68
Electrical	
Settling Time	≤ 3.0 sec
Discharge Time Constant	≥ 0.1 sec
Excitation Voltage	18 to 28 VDC
Constant Current Excitation	2 to 20 mA
Output Impedance	< 350 ohm
Output Bias Voltage	8 to 12 VDC
Spectral Noise (10Hz)	40 µg/√Hz
Spectral Noise (100Hz)	10 µg/√Hz
Spectral Noise (1kHz)	6 µg/√Hz
Electrical Isolation (Case)	>10 ⁸ ohm
Physical	
Sensing Geometry	Shear
Sensing Element	Ceramic
Housing Material	Stainless Steel
Sealing	Epoxy
Mounting	Through Hole
Mounting Through Bolt	10-32 Screw
Mounting Torque	2 to 5 ft-lb 2.7 to 6.8 N-cm
Electrical Connector	Configurable; see Model Matrix
Cable Length (Maximum Extended) and Type	6 ft Polyurethane 1.83 m Polyurethane
Size	1.49 x 0.69 in 37.9 x 17.5 mm
Weight (Without Cable)	3.9 oz 110 gm

Model Matrix		
Accelerometer	Cable Length	Connector Type
EX629A11A/	006	CC
	006 = 6 ft. length	AD = Pigtailed
		AN = 4-Socket Bayonet
		BZ = Blunt Cut
		DP = 7-Pin LEMO
		GV = 11-Pin Fischer
		HC = 4-Socket MS3116
		HM = 6-Pin Fischer
		HX = 5-Pin M12
		NF = Triple Splice Assembly
		PV = 5-Pin M12
		QC = 4-Pin M12

Available Accessories	
Model Number	Description
080M469	1.5" (38.1 mm) Flat Surface Magnet
080M470	1.5" (38.1 mm) Mounting Pad
080M475	1.5" (38.1 mm) Curved Surface Magnet



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ISO 9001 CERTIFIED ■ A2LA ACCREDITED to ISO 17025

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IMI Sensors, a division of PCB Piezotronics, Inc. manufactures industrial vibration monitoring instrumentation, such as accelerometers, vibration transmitters and switches that feature rugged stainless steel housings and survive in harsh environments like paper and steel mills, mines, gas turbines, water treatment facilities and power plants. Integrating with portable analyzers and PLC's, IMI instrumentation helps maintenance departments reduce downtime and protect critical machinery. Visit IMI Sensors at www.pcb.com. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corporation. Additional information on MTS can be found at www.mts.com.

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