



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

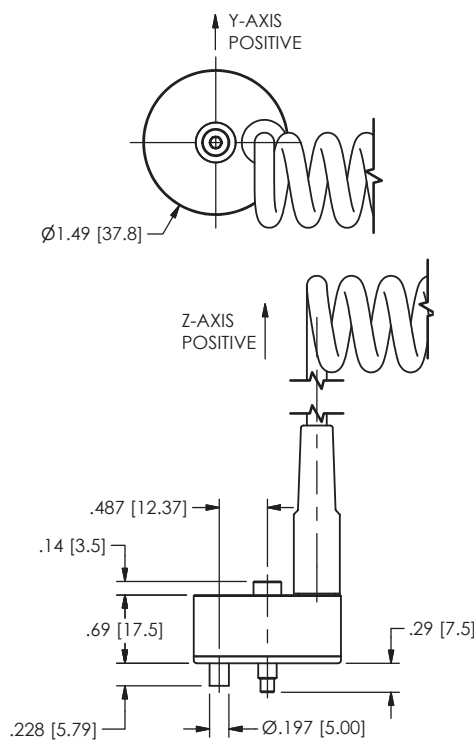
Hazardous Area Approved Triaxial Accelerometer



Technical Specifications	
Model Number	EX629A11A/006CC
Performance	
Sensitivity ($\pm 10\%$)	100 mV/g 10.2 mV/(m/sec ²)
Measurement Range	± 50 g pk ± 490.5 m/sec ² pk
Frequency Range (± 3 dB) (Z Axis)	2 to 10,000 Hz
Frequency Range (± 3 dB) (X or Y Axis)	2 to 7,000 Hz
Resonant Frequency	17,000 Hz
Broadband Resolution	560 μ g 5,694 μ m/sec ²
Non-Linearity	$\pm 1\%$
Transverse Sensitivity	$\leq 7\%$
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 μ g/ $\sqrt{\text{Hz}}$
Spectral Noise (100Hz)	10 μ g/ $\sqrt{\text{Hz}}$
Spectral Noise (1kHz)	6 μ g/ $\sqrt{\text{Hz}}$
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 YY
	006 = 6 ft. length	AD = Pigtailed
		AN = 4-Socket Bayonet
		BZ = Blunt Cut
		CV = 25-Pin, D-Style
		DP = 7-Pin LEMO
		GV = 11-Pin Fischer
		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 designs and manufactures a full line of accelerometers, sensors, vibration switches, vibration transmitters, cables and accessories for predictive maintenance, continuous vibration monitoring, and machinery equipment protection. Products include rugged industrial ICP[®] accelerometers, 4-20 mA industrial vibration sensors and transmitters for 24/7 monitoring, electronic and mechanical vibration switches, the patented Bearing Fault Detector, high temperature accelerometers to +1300 °F (+704 °C), 2-wire Smart Vibration Switch, and the patented Reciprocating Machinery Protector. CE approved and intrinsically safe versions are available for most products.

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