



Industrial ICP® Triaxial Accelerometers

Measures vibration in the horizontal, vertical and axial directions simultaneously.

Highlights

- Three concurrent readings reduce labor time and increase measurement consistency
- Through-bolt design ideal for spaces with limited clearance
- Wide variety of options available to accommodate most industrial applications:
 - 10 mV/g and 100 mV/g sensitivities
 - Top and side connector positions
 - Integral polyurethane and armored polyurethane cable options



Typical Applications

- Multi-axis route-based PdM with two or three channel data collector
- Machinery foundation troubleshooting
- Radial vs. axial motor bearing vibration monitoring
- Structural impulse and response studies

IMI Sensors has an extensive line of ICP® triaxial accelerometers developed predominantly for route-based industrial vibration monitoring applications. All of the sensors feature three elements in one housing, each with its own dedicated amplifier and dedicated connector pin or cable lead.

Hazardous Area Approvals

CSA (Canada & US)

- Ex ia AEx ia IIC T4 Class I, Div.1, Groups A, B, C, D
- Ex ia AEx ia IIC T4 Class I, Div.2, Groups A, B, C, D
- Ex ia AEx ia IIC T4 Class II, Div1, Groups E, F, G
- Ex ia AEx ia IIC T4 Class III
- Ex nA AEx nA IIC T4 Class I, Div.1, Groups A, B, C, D
- Ex nA AEx nA IIC T4 Class I, Div.2, Groups A, B, C, D
- Ex nA AEx nA IIC T4 Class II, Div1, Groups E, F, G
- Ex nA AEx nA IIC T4 Class III

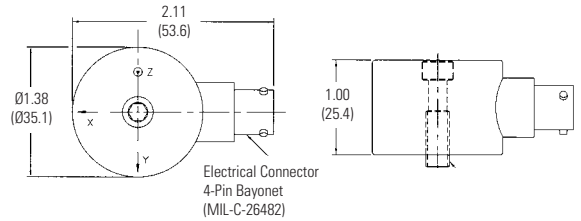
ATEX

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

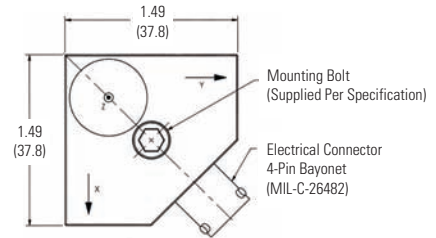




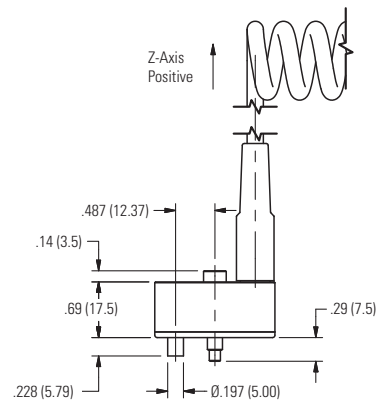
Technical Specifications				
Model Number	604B31	629A30	629A31	EX629A11A/
Performance				
Sensitivity	100 mV/g 10.2 mV/(m/s ²)	10 mV/g 1 mV/(m/s ²)	100 mV/g 10.2 mV/(m/s ²)	
Measurement Range	± 50 g ± 490 m/s ²	± 500 g ± 4,905 m/s ²	± 50 g ± 490 m/s ²	
Frequency Range- X (±3 dB)	0.5 to 5,000 Hz	0.8 to 8,000 Hz	2 to 7,000 Hz	
Frequency Range- Y (±3 dB)	0.5 to 5,000 Hz	0.8 to 8,000 Hz	2 to 7,000 Hz	
Frequency Range- Z (±3 dB)	0.5 to 5,000 Hz	0.8 to 8,000 Hz	2 to 10,000 Hz	
Resonant Frequency	10 kHz	20 kHz	17 kHz	
Broadband Resolution	350 g 3,434 m/s ²	316 g 3,100 m/s ²	100 g 981 m/s ²	560 g 5,694 m/s ²
Non-Linearity	±1%			
Transverse Sensitivity	≤5%			≤7%
Environmental				
Overload Limit (Shock)	5,000 g pk 49,050 m/s ² pk			
Temperature Range	-65 to +250 °F -54 to +121 °C		-40 to +176 °F -40 to +80 °C	
Hazardous Area Approval	N/A		CSA (C-US)	
Hazardous Area Approval	N/A		ATEX	
Enclosure Rating	IP68			
Electrical				
Settling Time	≤2.0 sec	≤3.0 sec		
Discharge Time Constant	≥0.3 sec	≥0.2 sec	≥0.1 sec	
Excitation Voltage	18 to 28 VDC			
Constant Current Excitation	2 to 20 mA			
Output Impedance	<150 ohm	<100 ohm	<350 ohm	
Output Bias Voltage	8 to 12 VDC			
Spectral Noise (10 Hz)	8.0 g√Hz	22.1 g√Hz	7.0 g√Hz	40.0 g√Hz
Spectral Noise (100 Hz)	5.0 g√Hz	8.9 g√Hz	2.8 g√Hz	10.0 g√Hz
Spectral Noise (1 kHz)	4.0 g√Hz	3.2 g√Hz	1.0 g√Hz	6.0 g√Hz
Electrical Isolation (Case)	>10 ⁸ ohm			
Physical				
Sensing Element	Ceramic			
Sensing Geometry	Shear			
Housing Material	Stainless Steel			
Sealing	Welded Hermetic			
Mounting Thread	1/4-28 Male			
Mounting Torque	2 to 5 ft-lb 2.7 to 6.8 N-m			
Electrical Connector	4-Pin MIL-C-26482		Configurable	
Electrical Connector Position	Side		Top	
Cable Type	N/A		Coiled Polyurethane	
Cable Length	N/A		6 ft 1.83 m	
Size	1.38 x 1.00 in 35.1 x 25.4 mm	1.50 x 1.50 x 0.82 in 38.1 x 38.1 x 20.8 mm	1.49 x 0.69 in 37.9 x 17.5 mm	
Weight (Without Cable)	4.4 oz 124 g	4.9 oz 139 g	3.9 oz 110 g	
Similar Models				
Integral 10 ft (3 m) Polyurethane Cable with Pigtails	604B11	629A10	629A11	N/A
Integral 10 ft (3 m) Armored Polyurethane Cable with Pigtails	604B61	N/A	629A61	N/A



604BXX



629AXX



EX629A11A



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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.

Visit www.imi-sensors.com to locate your nearest sales office.