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

**Hazardous Area Approvals**

**CSA (Canada & US unless otherwise noted)**
- AEx/Ex ic IIC T4 Gc Class I, Division 1, Groups A, B, C, D (EX629A11A/)
- AEx/Ex ic IIC T4 Gc Class I, Zone 2 (EX629A11A/)
- AEx/Ex ia IIC T4 Ga Class I, Division 1, Groups A, B, C, D (EX639A91)
- AEx/Ex ia IIC T4 Ga Class I, Division 2, Groups A, B, C, D (EX639A91)
- AEx/Ex ia IIC T4 Ga Class I, Zone 0 (EX639A91)
- Ex ia T4 Class I, Division 1, Groups C, D (Canada only) (CS604B31)

**ATEX**
- Ex ic IIC T4 Gc (EX629A11A/)
- Ex nA IIC T4 Gc (EX629A11A/)

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.
**Industrial ICP® Triaxial Accelerometers**

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**Technical Specifications**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>(CS)604B31</th>
<th>629A31</th>
<th>EX629A11A</th>
<th>EX639A91</th>
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</table>

**Performance**

- **Sensitivity**
  - ±100 mV/g
  - ±10.2 mV/mg

- **Measurement Range**
  - ±50 g
  - ±480 mV

- **Frequency Range**
  - X (±3 dB): 0.5 to 5,000 Hz, 0.8 to 8,000 Hz, 2 to 7,000 Hz, 5 to 10,000 Hz
  - Y (±3 dB): 0.5 to 5,000 Hz, 0.8 to 8,000 Hz, 2 to 7,000 Hz, 5 to 10,000 Hz
  - Z (±3 dB): 0.5 to 5,000 Hz, 0.8 to 8,000 Hz, 2 to 7,000 Hz, 5 to 10,000 Hz

- **Resonant Frequency**
  - 10 kHz
  - 20 kHz
  - 35 kHz

- **Broadband Resolution**
  - 350 μg
  - 100 μg
  - 560 μg
  - 300 μg

- **Non-Linearity**
  - ±2%
  - ±2%
  - ±5%

**Environmental**

- **Hazardous Area Approval**
  - N/A
  - CSA (C-US)
  - ATEX

- **Output Impedance**
  - <150 ohm
  - <100 ohm
  - <350 ohm
  - <150 ohm

**Electrical**

- **Sensing Element**
  - Ceramic
  - Shear

- **Sensing Geometry**
  - Stainless Steel
  - 316L Stainless Steel

**Mounting**

- **Thread**
  - 1/4-28 Male

**Input Excitation**

- **Constant Current Excitation**
  - 2 to 20 mA

**Isolation**

- **Electrical Isolation (Case)**
  - >108 ohm

**Connector**

- **Configurable Connector**
  - 4-pin M12

**Environmental Considerations**

- **Weight (Without Cable)**
  - 604B11
  - 629A11
  - 604B61
  - 629A61

**Similar Models**

- **100 mV/g & Int Cable**
  - 604B11
  - 629A11

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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](http://www.imi-sensors.com) to locate your nearest sales office.