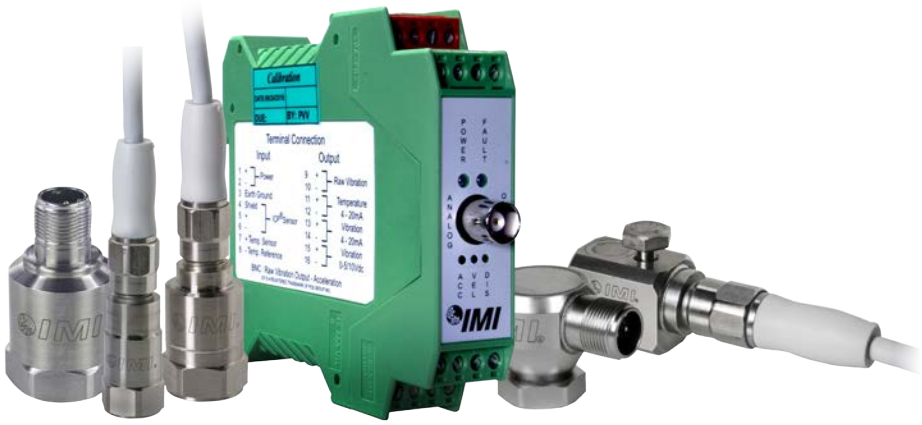
FOOD AND BEVERAGE MANUFACTURING



VIBRATION MONITORING: INTEGRAL PART OF A PREDICTIVE MAINTENANCE PROGRAM

Vibration monitoring should be an integral part of a food and beverage production facility's predictive maintenance program. The use of vibration sensors for early identification of developing equipment faults provides numerous benefits:

- Increase overall equipment effectiveness (OEE)
- Reduce unanticipated equipment downtime and/or failure
- Reduce spare parts inventory costs
- Make more effective use of maintenance staff time

IMI Sensors offers vibration sensors specifically designed to remain installed during the daily washdown/sterilization cycle. Eliminating the need for daily removal and re-installation of sensors saves sanitation staff's time and ensures more consistent data.

Smooth, Corrosion-Resistant (304 or 316L Stainless Steel) Housing and Base:

- Resisant to degradation by wash-down cycle chemical solutions (ie. chlorine) or acidic food products (ie. tomato paste or ketchup).
- Material density minimizes vulnerability to scrapes, dents and nicks.
- Surfaces are machined smooth to eliminate areas for water and/or particulate build-up.

Water-Tight, Hermetically-Sealed Casing with Welded Seams:

- Available with M12 connector, MIL connector or integral cable.

Durable Cables and Connectors:

- PTFE-jacketed cables and PPS connectors are resistant to degradation by most chemical solutions and food products.

IP69K-RATED ICP® ACCELEROMETER KITS

IMI Sensors offers several industry-exclusive sensor kits that can withstand the 1000 psi sprays of 140 °F (60 °C) water that are typical in a wash-down cycle. Each kit includes an ICP® accelerometer or 4-20 mA vibration transmitter with an M12 connector and a specially-designed, IP69K-rated cable assembly. The cable assembly includes a corrosion-resistant, stainless steel, 4-socket M12 connector molded on bright white, polypropylene-jacketed cable and is available in 10, 15 or 30 foot lengths.

High Sensitivity, Low-Noise ICP® Accelerometer Kit

Models 601A92 & 507QSXXXBZ

- Sensitivity: (±20%)
  500 mV/g (51 mV/(m/s^2))
- Frequency Range: (±3dB)
  0.17 to 10,000 Hz (10 to 600,000 cpm)
- Measurement Range:
  ±10 g (±98 m/s^2)

Small Footprint, Top Exit ICP® Accelerometer Kit

Models 603C91 & 507QSXXXBZ

- Sensitivity: (±10%)
  100 mV/g (10.2 mV/(m/s^2))
- Frequency Range: (±3dB)
  0.5 to 10,000 Hz (30 to 600,000 cpm)
- Measurement Range:
  ±50 g (±490 m/s^2)

Low Profile, Side Exit ICP® Accelerometer Kit

Models 602D91 & 507QSXXXBZ

- Sensitivity: (±10%)
  100 mV/g (10.2 mV/(m/s^2))
- Frequency Range: (±3dB)
  0.5 to 8,000 Hz (30 to 480,000 cpm)
- Measurement Range:
  ±50 g (±490 m/s^2)

Triaxial ICP® Accelerometer Kit

Models (EX)639A91 & 507QSXXXBZ

- Sensitivity: (±10%)
  100 mV/g (10.2 mV/(m/s^2))
- Frequency Range: (±3dB)
  0.5 to 10,000 Hz (30 to 600,000 cpm)
- Measurement Range:
  ±50 g (±490 m/s^2)

ICP® ACCELEROMETERS FOR SPECIALTY APPLICATIONS

IMI Sensors provides an extensive product offering of industrial ICP® accelerometers in order to suit a wide range of application demands. The entire product line features case isolation, hermetically-sealed stainless steel housings and larger-diameter shielded cable in order to withstand the harshest industrial environments. Hazardous area approved versions of most sensors are available.

Low Frequency ICP® Accelerometer

Model 626B02

- Ideal for slow-speed equipment. (ie. coffee bean roasters)
- Sensitivity: (±5%) 500 mV/g (51.0 mV/(m/s^2))
- Frequency Range: (±3dB) 0.2 to 6,000 Hz (12 to 360,000 cpm)
- Measurement Range: ±10 g (98 m/s^2)

Low Sensitivity ICP® Accelerometer

Model 603C00

- Ideal for high-vibration equipment. (ie. vibration hoppers)
- Sensitivity: (±20%) 10 mV/g (1.02 mV/(m/s^2))
- Frequency Range: (±3dB) 0.5 to 10,000 Hz (30 to 600,000 cpm)
- Measurement Range: ±500 g (±4,905 m/s^2)

Quartz Element ICP® Accelerometer

Model 624B01

- Ideal for thermally-active applications. (ie. conveyors through ovens & freezers)
- Sensitivity: (±5%) 100 mV/g (10.2 mV/(m/s^2))
- Frequency Range: (±3dB) 0.8 to 10,000 Hz (48 to 600,000 cpm)
- Measurement Range: ±50 g (±490 m/s^2)

VIBRATION TRANSMITTERS FOR PROCESS MONITORING

IMI Sensors' line of 4-20mA output vibration transmitters can easily interface with automation systems such as programmable logic controllers (PLCs) and distributed control systems (DCSs). With options for a velocity or acceleration measurement range, these sensors will allow data to be monitored and analyzed over the long-term in order to spot potential failures early before the develop into serious faults.

IP69K-Rated Velocity Vibration Transmitters

Models 640B91 & 507QSXXXBZ

Models 641B91 & 507QSXXXBZ

- Output: 4-20 mA
- Measurement Range: Full-scale value of 1.0 ips pk (640B91) Full-scale value of 1.0 ips RMS (641B91)

Other Vibration Transmitters

Series 640 | 641 | 642 | 643 | 645 | 646 | 647 | 648

- Output: 4-20 mA
- Measurement Range: Full-scale value of 0.5, 1.0 or 2.0 ips (640-643) Full-scale value of 5 or 10 g (645-648)
- Available in top or side exit versions

AC Voltage to 4-20 mA Transmitter

Model 682B03

- Use with ICP® acclerometer
- Selectable acceleration, velocity, or displacement scaling
- Field-adjustable low and high pass frequency filtering

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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.

THE INDUSTRY'S ONLY COMMITMENT TO TOTAL CUSTOMER SATISFACTION.