# **FOOD AND BEVERAGE MANUFACTURING**



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# **VIBRATION MONITORING**

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



## C € HIGH SENSITIVITY, LOW-NOISE ICP<sup>®</sup> ACCELEROMETER KIT

MODELS 601A92 & 507QSXXXBZ

- Sensitivity: (±20%) 500 mV/g (51 mV/(m/s<sup>2</sup>))
- Measurement Range: ±10 g (±98 m/s²)



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 stainless steel housing and base.
- Resist degradation by wash-down cycle chemical solutions or acidic food products.
- Minimize vulnerability to scrapes dents, and eliminates areas for water and/or particulate build-up.
- Watertight, hermetically-sealed casing with welded seams prevents liquid infiltration.



## CE DUAL OUTPUT VIBRATION AND RESISTANCE TEMPERA-TURE DETECTOR (RTD)

MODELS RTD602D91, RTD602D11

- Ceramic shear ICP<sup>®</sup> accelerometers w/ or w/o integral polyurethane cable
- Sensitivity (±10%): 100 mV/g (10.2 mV/(m/s<sup>2</sup>))
- Measurement Range: ±50 g (±490 m/s<sup>2</sup>)



# LOW COST TRIAXIAL

- MODELS 604B31, 604B32
- General purpose, hermetically sealed accelerometer
- Perfect for permanent mount applications

## **ICP® ACCELEROMETERS** FOR SPECIALTY APPLICATIONS



## CE

#### 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<sup>2</sup>))
- Frequency Range: (±3dB) 0.2 to 6,000 Hz (12 to 360000 cpm)
- Measurement Range:  $\pm 10 \text{ g} (98 \text{ m/s}^2)$



LOW SENSITIVITY ICP® ACCELEROMETER MODEL 603C00, 603C01

- Ideal for high-vibration equipment. (ie. vibration hoppers)
- Sensitivity: (±20%) 10 mV/g (1.02 mV/(m/s<sup>2</sup>)) (±10%) 100 mV/g (10.2 mV/(m/s<sup>2</sup>))
- Frequency Range: (±3dB) 0.5 to 10000 Hz (30 to 600000 cpm)
- Measurement Range: ±500 g (±4905 m/s<sup>2</sup>)



### **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<sup>2</sup>))
- Frequency Range: (±3dB) 0.8 to 10,000 Hz (48 to 600000 cpm)
- Measurement Range: ±50 g (±490 m/s<sup>2</sup>)

# **VIBRATION TRANSMITTERS** FOR PROCESS MONITORING



## **TOP EXIT VIBRATION** TRANSMITTER SERIES 640, 641, 645, 646

- Output: 4-20 mA
- Measurement Range: Full-scale value of 0.5, 1.0, 2.0 ips, pk or RMS 5, 10 q's RMS



**SIDE EXIT VIBRATION TRANSMITTERS** SERIES 642, 643, 647, 648

Output: 4-20 mA

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Measurement Range: Full-scale value of 0.5, 1.0, 2.0 ips, pk or RMS 5, 10 g's RMS



## AC VOLTAGE TO 4-20 MA TRANSMITTER MODEL 682C03

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





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