



# Shock Monitoring

Miniature Embeddable Accelerometers for Monitoring Shock in Critical Shipping Containers



 **IMI SENSORS**  
A PCB PIEZOTRONICS DIV.

# Process Monitoring & Protection

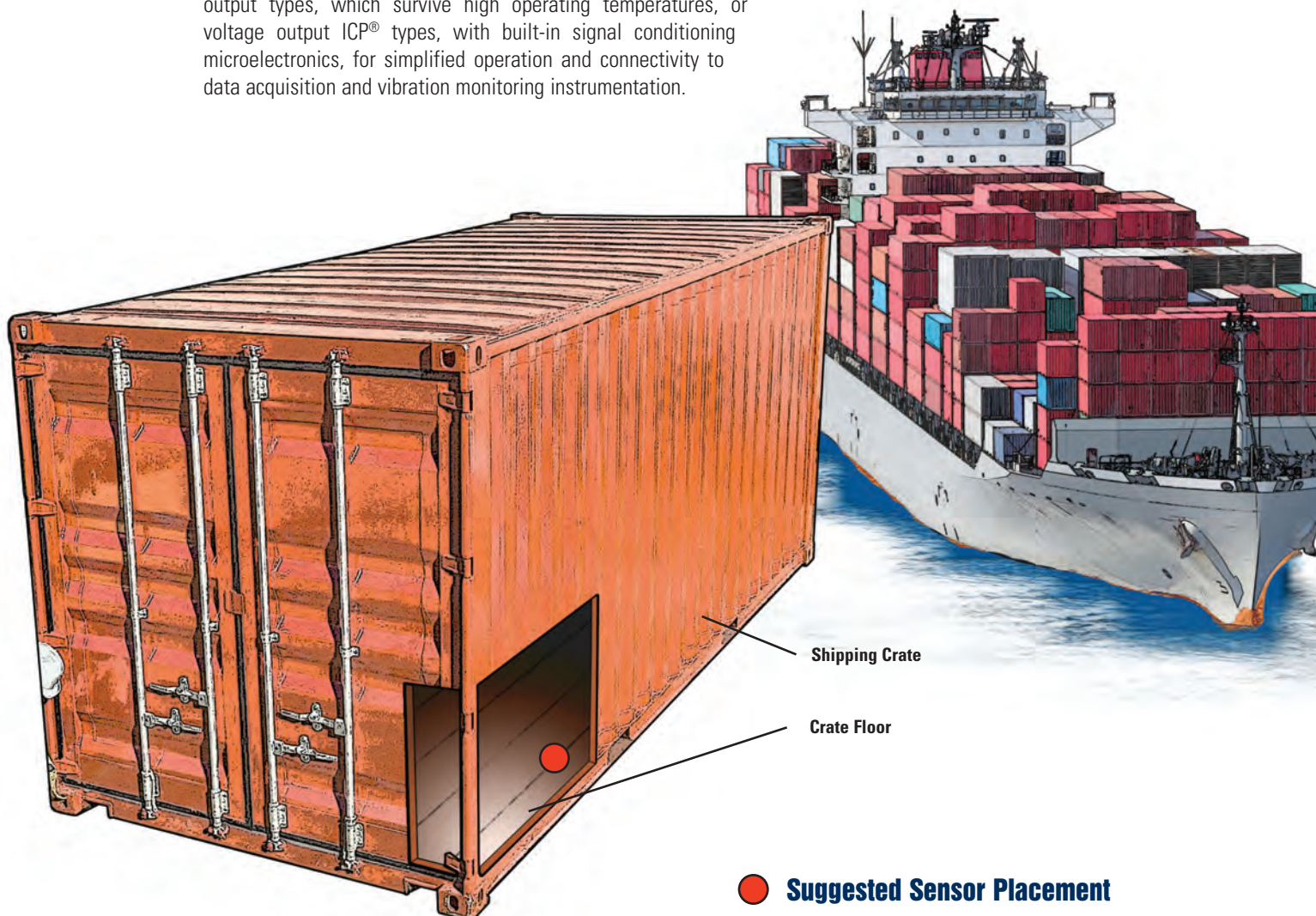
## Shock Monitoring

Reusable ocean going shipping containers sometimes carry critical cargo that can be exposed to high shock levels during loading and unloading. It has become necessary to monitor shock and vibration loading to prevent damage and provide a record of these events.

IMI's line of embeddable miniature accelerometers in conjunction with other geographical logging devices provides vibration and shock signals to logging devices creating a dock to dock record of events occurring during the shipment cycle.

Series 660 low cost embeddable accelerometers offer an affordable solution for vibration and shock measurements in high volume and commercial OEM applications. These units are particularly well suited for shock and impact detection of packages or components, as well as bearing and gear mesh vibration measurements in predictive maintenance and condition monitoring requirements. The compact designs may be embedded into machinery at the OEM level to provide value added monitoring protection.

The units employ field proven, solid state, piezoelectric sensing elements for durability and broadband performance. Choose from charge output types, which survive high operating temperatures, or voltage output ICP® types, with built-in signal conditioning microelectronics, for simplified operation and connectivity to data acquisition and vibration monitoring instrumentation.







### Low-power Pellet Accelerometers - Process Monitoring & Protection

- Choice of standard TO-5 or TO-8 transistor style packages
- Variety of sensitivities to accommodate a wide range of applications
- Charge output piezoelectric, voltage output ICP® and 3-wire low-power options
- Mountable via adhesive or soldering and choice of either integral cable or solder pin electrical connections
- Broadband width, high shock survivability, wide operating temperature range, high resolution and large dynamic range



**Embeddable Accelerometer**  
Low Profile TO-5



**Embeddable Accelerometer**  
TO-5

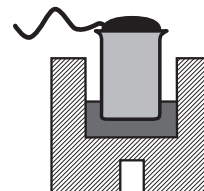


**Embeddable Accelerometer**  
TO-8

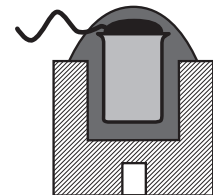
## Tips From Techs

### Embeddable Accelerometer Mounting Examples

IMI's embeddable accelerometers are an excellent choice for monitoring shock and vibration in a very small package. Examples to the right show different options for potting or complete encapsulation into mounting hardware, creating the optimal solution.



**Potted Sensor**  
Installation



**Encapsulated Sensor**  
Installation



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