





# WATER & WASTEWATER TREATMENT EQUIPMENT

Municipal water authorities oversee a vast range of infrastructure, including wastewater treatment plants, water treatment plants, lift stations, pump stations, storage tanks and miles of sewer/water pipelines. The efficient and uninterrupted operation of the system is essential in order for water authorities to stay in compliance with local and federal drinking water and wastewater discharge/treatment laws.

The infrastructure system includes a variety of rotating assets, including blowers/fans, motors and pumps. Performing vibration analysis on this equipment can detect developing faults early so that they can be addressed before causing catastrophic failure.

- Blowers/Fans- Friction, imbalance, looseness/ misalignment
- Motors- Bearing issues, electrical issues, imbalance, looseness/misalignment
- Pumps- Cavitation, imbalance, looseness/misalignment

Many water authorities already utilize a SCADA (supervisory control and data acquisition) system to monitor and control the process. Vibration transmitters with a current output can be easily integrated into that existing system in order to collect and record vibration data. Vibration transmitters output an overall value, which does not require extensive mathematical analysis to interpret and is well suited for the knowledge level of process control generalists within a facility.

For those facilities with vibration analysis capabilities and resources, a wide variety of accelerometers are available that can be used for route-based measurements in conjunction with a third-party handheld data collector or for permanent installations in conjunction with online data acquisition systems.

## **VIBRATION TRANSMITTERS**

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#### 4-20 mA OUTPUT SENSOR

SERIES 640/641/642/643

- Peak or RMS velocity
- 0-0.5, 0-1, 0-2 ips measurement ranges available
- Intrinsically safe versions available

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#### 4-20 mA OUTPUT SENSOR

SERIES 645/646/647/648

- RMS Acceleration
- 0-5, 0-10 g measurement ranges available
- Intrinsically safe versions available

## **DIN RAIL VIBRATION TRANSMITTERS**



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### **VIBRATION TRANSMITTER**

MODEL 682C03

- Outputs 4-20 mA signals for overall vibration and temperature
- ICP® accelerometer input
- Analog vibration output via front BNC



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#### **BEARING FAULT DETECTOR**

MODEL 682C05

- Provide early warning of bearing and gear faults
- ICP® accelerometer input
- Outputs 4-20 mA signals for true peak acceleration and overall vibration

## **ICP® ACCELEROMETERS**







#### THE SWIVELER® ACCELEROMETER

MODEL 607A11

- Waterproof housing, ideal for submersible applications
- Patented 360° swivel mount
- Small footprint and low-profile design
- Intrinsically safe version available

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## HIGH-FREQUENCY TRIAXIAL ACCELEROMETER MODEL 639A91

MODEL 639A91

- Frequency response on all three axes up to 13 kHz (±3dB)
- Extremely small footprint
- Intrinsically safe version available





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IMI Sensors offers a wide range of industrial vibration sensors, bearing fault detectors, mechanical vibration switches, panel meters, cables, and accessories for predictive maintenance and equipment protection. For power generation and energy applications requiring precision measurements, IMI also offers pressure sensors and accelerometers.

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