

Thank you! Your submission has been received!

Your top 5 recommended technologies

Based on your questionnaire, this was the top 5. In this questionnaire, the journey is more important than the final result as many accelerometer technologies can be suitable for the same application. Use the recommendations and comments to each question to further steer you into making the right decision. Also ask your supplier to help you with these questions. If you need some assistance, we'll be glad to help.

1. **Wireless** (32 pts)
2. **MEMS** (31 pts)
3. **Seismic** (29 pts)
4. **IEPE** (22 pts)
5. **Charge** (18 pts)

Your answers

Q1. What is your measurement application?

A: General vibration analysis

General vibration analysis is the preferred starting point when diagnosing unknown machine behaviour. Choose an accelerometer with sufficient bandwidth to capture both the running speed and the expected fault frequencies. The required frequency range is determined in the following questions. If the application is unknown, consider renting a measurement system or ask an expert to perform an initial measurement campaign.

Q2. What is your maximum frequency?

A: <100 Hz

For measurements below 100 Hz, the sensor's noise floor is often more important than its bandwidth. MEMS and seismic accelerometers are excellent choices for low-frequency measurements. Most accelerometer technologies perform well in this frequency range, so other selection criteria such as measurement range, environmental conditions and mounting method will often be more decisive.

Q3. What is your minimum frequency of interest?

A: DC or 0Hz

If you need to measure down to DC (0 Hz), verify that the accelerometer explicitly specifies DC or 0 Hz as its lower frequency limit. If this is not stated in the datasheet, the sensor cannot accurately measure static or quasi-static accelerations. MEMS and seismic accelerometers are typically suitable, while IEPE, charge and high-g accelerometers are not.

Q4. If the sensor needs to capture rotating dynamics, what is the speed range of your system?

A: <60RPM

A rotational speed below 60 RPM corresponds to a fundamental frequency below 1 Hz. Most vibration phenomena occur within the first 10 to 20 harmonics, so a measurement bandwidth up to approximately 10–20 Hz is often sufficient for general rotating machinery. If you need to analyse gearboxes or bearings, also determine the gear mesh frequency (number of gear teeth × rotational speed) and the characteristic bearing fault frequencies. The required measurement bandwidth should extend well beyond these frequencies, typically by at least a factor of 10.

Q5. Is the sensor mounted on a moving object?

A: no

If the sensor is mounted on a stationary location, all sensor technologies remain suitable. In