



White Paper Isolation Adapters



Why Isolation Adapters Are Used with Vibration

Introduction

Vibration sensors are used in a wide variety of applications to monitor vibrations in machinery and equipment. This monitoring is crucial for detecting faults early and preventing failures. However, in many industrial environments, vibration sensors are exposed to harsh conditions that can affect their performance and accuracy.

The Role of Isolation Adapters

Isolation adapters play an important role in protecting vibration sensors and ensuring reliable measurements. Here are some key reasons why they are used:

- **Protection against electrical interference:** In industrial environments, electrical interference can occur, which can distort the measurement signals from vibration sensors. Isolation adapters provide an electrical barrier that reduces this interference and improves signal quality.
- **Filtering high-frequency vibrations:** In different applications, high-frequency vibrations that overlap the frequencies important for diagnostics and machine monitoring can make evaluation impossible. Isolation adapters reliably filter out the high-frequency components of vibrations.
- **Thermal isolation:** In some applications, extreme temperatures can affect the performance of vibration sensors. Isolation adapters with thermal insulation properties protect the sensors from these temperature influences.



Additional Advantages

In addition to the reasons mentioned, isolation adapters offer further advantages:

- **Easy installation and replacement:** Isolation adapters facilitate the installation and replacement of vibration sensors, which simplifies the maintenance of machinery and equipment.
- **Increased sensor life:** By protecting against harmful influences, isolation adapters help to extend the life of vibration sensors.
- **Improved measurement accuracy:** Overall, isolation adapters help to improve the measurement accuracy of vibration sensors, leading to more reliable monitoring results.

Conclusion

Isolation adapters are essential components in many applications that use vibration sensors. They protect the sensors from electrical, mechanical, and thermal influences, enable easy installation, and contribute to improving measurement accuracy. By using isolation adapters, companies can increase the reliability of their machinery and equipment and avoid failures.

Support

With offices worldwide, we can provide customer support no matter where you may be. Our fully trained staff are on hand to assist with any questions you may have.