# In Any Environment.

Precise motion measurement in its most robust form.

Inclination and Acceleration Sensors





### **Absolute Precision—in Any Environment**

Whether they are leveling cranes, controlling elevators, or monitoring front-loader tilt, inclination and acceleration sensors from Pepperl+Fuchs ensure precise measurements—even in harsh outdoor conditions.

#### **Unique, Protective Mounting Concept**

Based on a two-piece concept, F99 series sensors consist of the sensor module and a rugged metal mounting bracket. The bracket provides impact protection while also allowing easy assembly with an integrated screw. This increases the sensor's resistance to vibration and shock and allows quick and easy replacement without the need for adjustment or calibration.

# International Approvals and Simple Parameterization Open Up a Range of Applications

The inclination and acceleration sensors from Pepperl+Fuchs can be individually adapted to suit an application. Special software filters and a variety of parameters can be set quickly and easily, equipping the sensor to handle the task at hand. In addition, our inclination and acceleration sensors have E1 approval for use on public roads.



Maximum tightness



Increased EMC interference immunity: ISO 7637 and ISO 11452



Extended temperature range



Increased resistance to mechanical shock and vibration up to 100 g



E1 approval



#### The Right Sensor for Any Requirement

Every application places different demands on sensors. With Pepperl+Fuchs' broad portfolio of inclination and acceleration sensors, you can select from a wide variety of features to find the best fit for your application requirements.

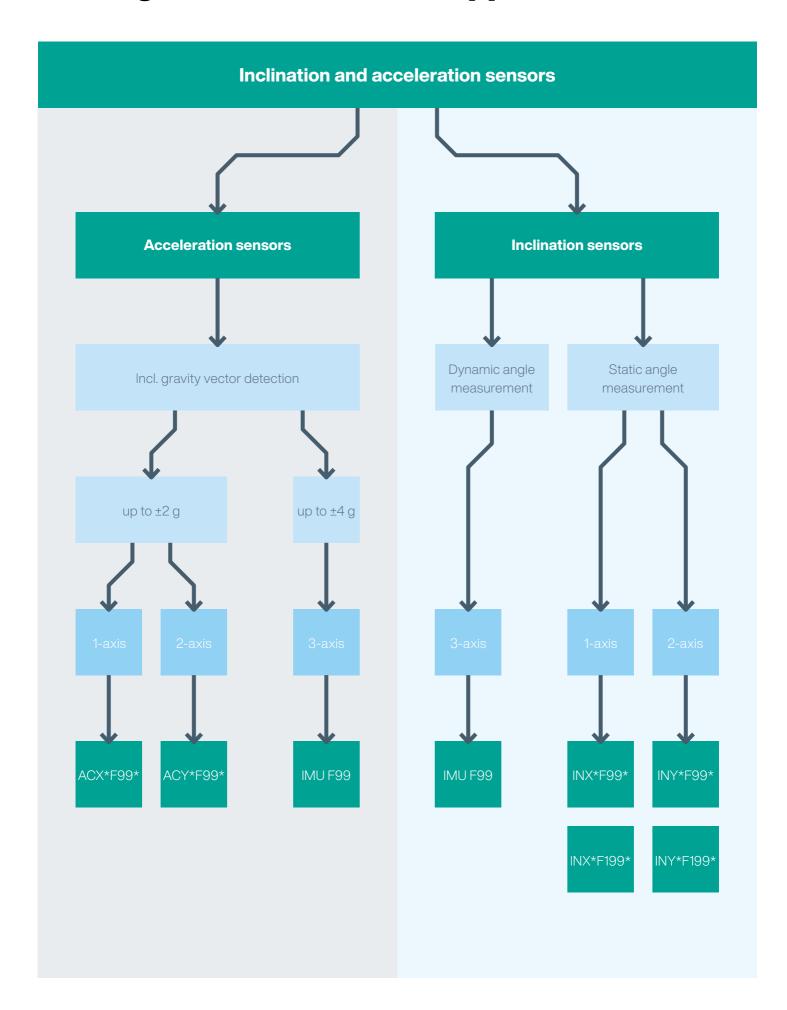
For monitoring a wind turbine installation, for instance, a dualaxis F99 acceleration sensor would be suitable. When a set mechanical vibration limit is exceeded, the turbine monitoring system can take action to avoid damage. When leveling a mobile work platform, a single- or dual-axis F99 inclination sensor could be used. The sensor constantly monitors the platform's incline and indicates when a readjustment is necessary.

The three-axis IMU F99 compensates for external acceleration and can provide 360° of precise inclination and acceleration data. This makes it perfect for dynamic off-road and marine applications.

	Acceleration Sensor	Inclination Sensor		Inertial Measurement Unit
Order reference	AC*-F99*	IN*-F99*	IN*-F199*	IMU F99
Inclination measurement application		Static up to ±0.5° accuracy	Static up to ±0.1° accuracy	Dynamic
Inclination measurement on multiple axis		Single and dual axis	Single and dual axis	Triple axis
Rotation rate measurement on multiple axis				Triple axis
Acceleration measurement on multiple axis	Single and dual axis			Triple axis
Suitable for outdoor applications	•	•	•	•
E1 approval		•		•
Parameterizable via interface		•	•	•



## The Right Sensor for Your Application



# Your automation, our passion.

#### **Explosion Protection**

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex® Fieldbus Infrastructure
- Remote I/O Systems
- Electrical Explosion Protection Equipment
- Purge and Pressurization Systems
- HMI Systems
- Mobile Computing and Communications
- HART Interface Solutions
- Surge Protection
- Wireless Solutions
- Level Measurement

#### **Industrial Sensors**

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Vibration Monitoring
- Industrial Ethernet
- AS-Interface
- IO-Link
- Identification Systems
- Displays and Signal Processing
- Connectivity

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Printed in Germany • Part. No. 205219 09/22 07 • public



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