



## Ground/Flight testing and monitoring solutions from Kistler – for efficient, safe and sustainable electric aircraft

### Selected applications:

- Electric propulsion system vibration measurements and monitoring
- Electric propulsion system reaction forces and moments
- Electric motor testing (torque-speed efficiency)
- Thrust and torque measurements
- Battery thermal runaway testing
- Structural health monitoring
- Structural analysis and optimization
- Payload stability
- Impact testing
- Qualification of safety critical components
- Landing structure and gear testing
- Production monitoring: zero-defect production with full process traceability
- Data management and big data analysis

### Benefits

- Custom measuring chains for UAV, drone and eVTOL testing applications
- 60+ years of experience in Aerospace industry
- Application know-how to discuss measurement solutions
- Miniature and thermally stable accelerometer technologies (IEPE, PE or MEMS)
- Small and low weight modal accelerometers with different measurement ranges
- Single and multi-component force sensors and dynamometers or force and torque measurements
- Low and high frequency response accelerometers
- TEDS (Transducer Electronic Data Sheet)
- Dual range rotary torque sensors for efficient measurements
- Flexible and scalable signal conditioning, DAQ and software solutions
- Reliable and flexible cabling solutions

## Selected products for eVTOL testing



**Accelerometers** (vibration measurements, structural analysis and optimization, modal analysis)



**Force sensors** (electric propulsion system reaction forces and moments testing)



**Torque sensors** (electric motor torque-speed efficiency testing, torque ripple testing, torque cogging testing)



**Pressure sensors** (battery testing, battery thermal runaway, operating temperature up to 1000°C)



**Signal conditioning and DAQ** (solutions for signal processing and subsequent data digitization, data acquisition)



**Software** (data visualization, data management)



Our precise methods evaluate the torque, speed and angle of rotation of electric motors.

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