

# WIRELESS TECHNOLOGY FOR COST-EFFECTIVENESS, SAFETY, AND CONVENIENCE

**airius**  
WIRELESS VIBRATION SENSOR

Providing warning of vibration-related problems as well as gear and bearing faults, Airius® is a wireless, battery-powered vibration sensor ideal for remote condition monitoring of standard production equipment such as pumps and fans. Designed and manufactured by SPM Instrument, the sensor builds on fifty years of experience in developing reliable and industry-leading solutions for condition monitoring.

Remote condition monitoring of machinery enables maintenance departments to cut down on maintenance routes, leaving time to work on improvements in other areas of the plant. It also saves costs in terms of cabling and other hardware associated with wired sensors. Airius is ideal for monitoring remote or inaccessible machines, or machines placed in hostile or risky environments – anywhere the wireless transfer of vibration data is practical, or even a matter of safety.

## CONNECTIVITY MADE EASY

The Airius sensors are a smart way to start with online condition monitoring. It is easy to start small with the new cloud-based application Condmaster.NET® (hosted in SPM Cloud), providing easy access to measurement data through a user-friendly graphical interface, then expand with the sophisticated analysis and diagnostic software Condmaster® Ruby.

## INDUSTRY-LEADING MEASUREMENT TECHNOLOGY

Airius is a MEMS type sensor with digital output, measuring triaxial vibration and temperature. The sensor currently comes in two versions; one measuring in the 10-1000 Hz frequency range, the other between 2-1000Hz and 10-5000 Hz with envelope measurement capabilities. Airius supports several different vibration measurement assignments per sensor, with a user-defined number of time-based daily measurements.



## TYPICAL APPLICATIONS



**SPM**  
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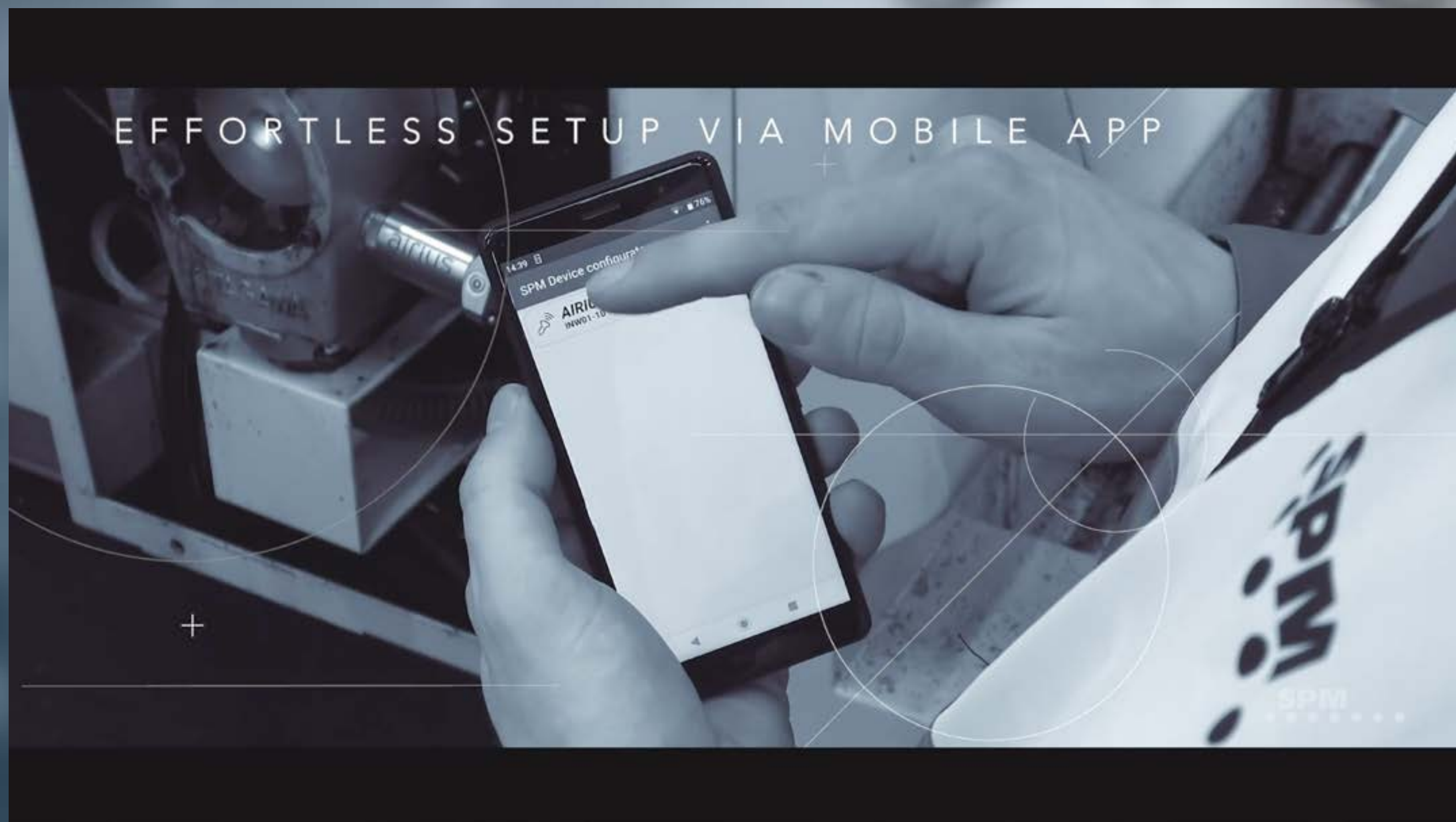
[spminstrument.com](http://spminstrument.com) | [info@spminstrument.com](mailto:info@spminstrument.com)



Additional measurements can be manually triggered by pressing a single button on the side of the sensor. The signal processing algorithms and calculation routines used are the same as in the high-end Intellinova® online system and the sophisticated portable Leonova® Diamond and Leonova® Emerald instruments.

### EASY INTEGRATION AND TROUBLE-FREE USE

Practical and robust, the Airius sensors have a compact design and an efficient and energy-saving communication protocol. The careful design and optimal choice of battery technology ensure years of troublefree use and stable monitoring. In idle state, sensor power consumption is extremely low. Using the well-established and stable WiFi data transfer technology, Airius is an easy-to-implement solution that works well within existing IT environments.



### STRAIGHTFORWARD INSTALLATION AND EFFORTLESS SETUP

Airius does not require any supplementary equipment besides WiFi routers. The sensors have the shortest response times in the segment, making installation and commissioning straightforward and fast. The SPM Connect App, downloadable for mobile devices, is used to configure the necessary communication parameters to connect to the database; either through the Condmaster Entity Server (CES) communication program or through secure transfer via SPM Cloud to Condmaster.NET. Once installed and configured, the Airius sensors are managed and run alongside SPM online and offline measurement systems. REST API support allows other devices or process control systems to retrieve vibration data from the sensor.

When used with Condmaster Ruby, rotational speed and process parameters can be retrieved as a global value and registered along with the vibration reading. Furthermore, condition parameters can be utilized to determine whether or not a reading should be saved.

AIRIUS – CONNECTIVITY DOESN'T HAVE TO BE COMPLICATED



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