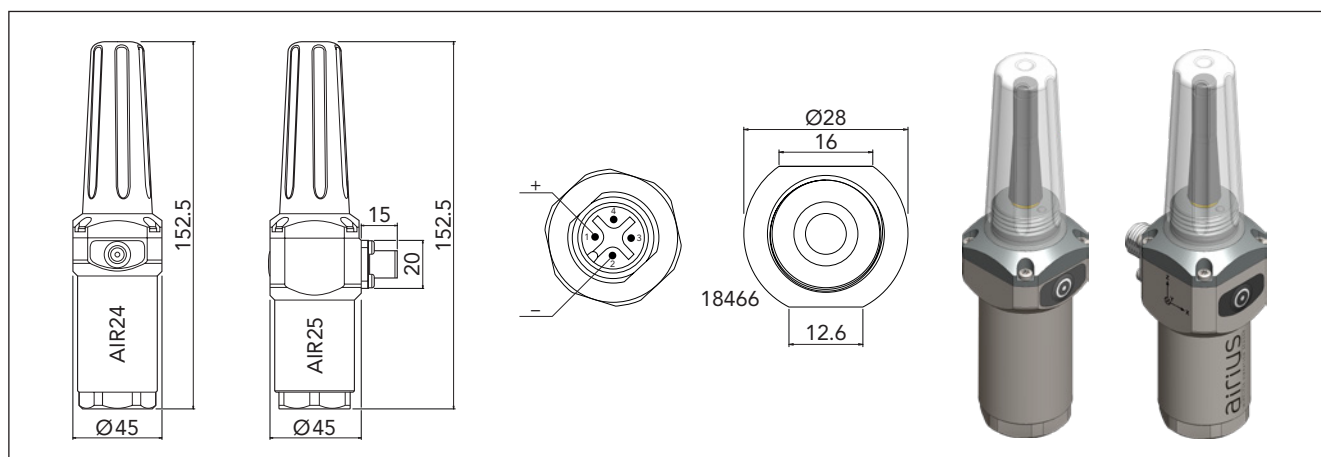


Airius III LTE-M – Wireless vibration sensor, global solution



Measuring triaxial vibration and temperature, Airius is a MEMS type sensor that performs a user-defined number of daily measurements in the 2-5000 Hz frequency range.

The sensor is ideal for use on standard production equipment, such as pumps and fans. It provides warning of vibration-related problems, such as imbalance, misalignment, impeller and fan blade issues, resonance, and cavitation, as well as gear and bearing faults. It can wake up between scheduled measurements when vibrations exceed a low, medium or high vibration level, ensuring that important changes are captured even outside the normal measurement cycle.

In the battery-powered version, favorable battery technology and careful design ensures a four-year battery life at two measurements a day under ideal conditions. Battery life is affected by the number of daily measurements, LTE-M signal quality, ambient temperature, and time in Bluetooth mode.

The wireless transmission is via mobile data and LTE-M, a low-energy protocol designed to meet high-coverage, low-cost, and low power-consumption requirements of IoT equipment. LTE-M is on track to support future 5G requirements.

Airius has an eSIM card from the telecom operator Onomondo, locked to the physical sensor, and a communication protocol only allowing communication initiated from the users' own network via a secure service. The transfer from the sensor to the user is thus secure against intrusion.

Airius is compatible with Condmaster.NET, a web-based application providing easy access to measurement data, and the analysis and diagnostic software Condmaster Ruby (2026.4.0 or later). To enable communication between the sensors and Condmaster Entity Server (CES), the local installation of CES must be allowed access to the CES Service Connector via the part number MOD210. For details, see 72341.

AIR25 has a 4-pin M12 male connector for external power supply. For connectors that fit, see TD-540 and TD-544.

Technical specifications

Material, housing/lid: stainless steel EN 1.4523

Weight: approx. 300 g

Power supply,

AIR24: non-rechargeable 3.0 VDC Lithium

AIR25: 24 V DC $\pm 10\%$, 400 mA



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Power rating, AIR25: 1.2 W

Power connector, AIR25: 4-pin M12 male connector

Readings: RMS, peak, peak-to-peak, crest, kurt, skew, temperature

Measurement range, temperature: -20° to $+85^{\circ}$ C (-4° to $+185^{\circ}$ F) (accuracy $\pm 2^{\circ}$ C)

Spectrum lines: 400, 800, 1600, 3200, 6400 lines

Operating temperature: -20° to $+85^{\circ}$ C (-4° to $+185^{\circ}$ F)

Storage temperature: -40° to $+85^{\circ}$ C (-40° to $+185^{\circ}$ F)

Maximum altitude: 2000 m

Condition evaluation: ISO10816 Part 2, 3, 4 >600 rpm

Automatic wake-up: At low/medium/high vibration level

Protection class: IP69

Relative humidity: 0 to 100% (non-condensing)

LTE-M: LTE Cat M1 (300 kb/s DL, 375 kb/s UL). Multi-region, including bands 1-5, 8, 12-13, 18-20, 25-26, 28

Global operator: Onomondo*

Bluetooth: v4.2 BLE

Part numbers

AIR24-10-2 Airius III LTE-M, battery-powered, incl. a 36-month subscription**, 2-5000 Hz, 50/100/200 g

AIR25-10-2 Airius III LTE-M, externally powered, incl. a 36-month subscription**, 2-5000 Hz, 50/100/200 g

MOD210 CES Service Connector, enabling outgoing traffic from CES to CES Service Connector

Accessories

18466 Installation foot for glue installation

18470 Installation kit (installation foot, M4 screw, M4 washer, M6 screw)

18471 Installation kit (installation foot, M8 screw)

18549 Power supply for testing AIR25 in an indoor environment (incl. Europlug, angled 4-pin M12 female connector, and 1.8 m cable)

MOD1YB 12 months of additional data for AIR24**

MOD1YC 12 months of additional data for AIR25**

MOD3YB 36 months of additional data for AIR24**

MOD3YC 36 months of additional data for AIR25**

Spare parts

90700 Antenna

100064 Spare part kit (battery, O-ring, 4 pcs M2.5x6 screw)

100242 Spare part kit (O-ring, antenna cover)

* Not all networks supported by Onomondo are available – ask SPM for recent information.

** Included monthly data volume covers 4 measurements per day for AIR24 and 24 measurements per day for AIR25. Excessive data consumption might cause the service to stop working.



Technical data are subject to change without notice.
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