

Radiosonde RS41 E-models

High-quality atmospheric sounding data with 66% less plastic waste



Meteorologists and research institutions launch radiosondes every day from land and sea to collect crucial weather observations. Vaisala radiosondes provide world-class sounding data and are known for their accuracy, reliability and ease of use. Now they can also have biodegradable parts.

The environmental impact of radiosondes mainly comes from batteries, electronics and mechanics. Vaisala Radiosonde RS41 E-models combine high-quality atmospheric sounding data with innovative, biodegradable materials to help reduce plastic waste originating from sounding operations.

RS41 E-models are an industry first in biodegradable materials: All models include BioCover™, our patent-pending plastic-free and biodegradable radiosonde cover and insulation, and BioTwine™, our plastic-free and biodegradable unwinder twine. RS41 E-models can replace standard RS41 radiosondes in operational use, with the same uncompromising performance and accuracy.

Tailored to the needs of meteorological organizations, RS41 E-models measure upper air temperature, humidity, pressure and wind — providing the most accurate, dependable and high-quality data available.

Biodegradable mechanical parts

Proven biodegradability with no released microplastics after use in natural environments like marine and freshwater

Biobased and plastic-free materials

Innovative cover and insulation materials and cellulose-based twine

Accurate and reliable

Industry-leading quality measurements of temperature, pressure, wind and humidity

Rugged dependability

Consistent performance in demanding weather conditions at every launch

RS41 radiosondes are trusted worldwide for delivering industry-leading data accuracy. The most widely used as the GRUAN reference grade radiosonde, Vaisala radiosondes streamline launch preparations, reduce human errors, and lower operational costs of upper-air weather observations.

Both the RS41-SGE and RS41-SGPE models provide superior PTU and wind measurement performance, automated ground checks and GPS data — all in a robust and easy-to-use design. The advanced design is compatible with existing ground equipment and current sounding systems, both manual and automatic.

Key features

Radiosonde RS41-SGE

- Biodegradable and plastic-free BioCover and BioTwine
- Excellent for synoptic soundings
- Temperature and humidity sensors
- GPS height, pressure and wind data
- Automated ground checks
- Standards-compliant, stable narrow band transmission

Radiosonde RS41-SGPE

- Biodegradable and plastic-free BioCover and BioTwine
- Excellent for sensor based pressure needs
- Temperature and humidity sensors
- GPS wind direction and speed
- Automated ground checks
- Sensor-based pressure and height
- Standards-compliant, stable narrow band transmission

Why Vaisala?

Expertise, innovation, and support

Vaisala is innovating and equipping meteorology professionals to better understand, forecast and explain the weather. Backed by 85 years of proven weather measurement expertise, meteorologists in more than 170 countries trust Vaisala solutions to help them make informed decisions.

You're covered with 24/7 global support plus project capabilities and training so you can get the most from your soundings. With decades of experience providing the best technologies and the finest support, Vaisala's philosophy of partnership is unmatched in the industry.

Sustainability frontrunner

Vaisala is a member of the RE100 initiative and uses 100% renewable electricity. We are committed to setting science-based targets for emissions reduction, and to the UN Sustainable Development Goals to promote sustainable business. In 2022, Vaisala received the Carnegie Sustainability Award.

Trusted weather observations for a sustainable future

VAISALA

vaisala.com/soundings



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