

# Vaisala Upper Air Radiosondes

**VAISALA**

## Product Spotlight

### Providing trusted weather observations for a sustainable future

Providing high-quality atmospheric sounding data for the most accurate weather forecasting

Better weather prediction has far-reaching socioeconomic benefits. Upper air soundings help provide a complete atmospheric weather profile, which weather organizations use for the most accurate weather forecasting.



## Key benefits

Streamline launch preparations, reduce human errors, and lower operational costs of upper-air weather observations.

### Radiosonde RS41-SG:

- Excellent for synoptic soundings
- Temperature and humidity sensors
- GNSS height, pressure, and wind data
- Automated ground checks
- Standards-compliant, secure transmission

### Radiosonde RS41-SGP:

- Excellent for sensor-based pressure needs
- Temperature and humidity sensors
- GNSS wind direction and speed
- Automated ground checks
- Sensor-based pressure and height
- Standards-compliant, secure transmission

## Why Vaisala?

As the global leader in weather and environmental measurements, Vaisala provides trusted weather observations for a sustainable future. With over 85 years of experience and customers in 170+ countries, from the North and South Poles to Mars, we help provide the most reliable and accurate weather and climate information for better and safer daily lives.

Our instruments and intelligence are known as the gold standard for precision and reliability. As a sustainability leader we enable meteorology professionals to better understand, forecast and explain climate change. We continue to channel our curiosity into climate action and new ways of enabling a better planet for all.

The Vaisala family of upper air sounding devices provide world-class data and are known for their accuracy, reliability, and ease of use.

Vaisala radiosondes provide upper air weather measurement data including temperature, humidity, pressure, and wind. Our line of radiosondes offers various measurement parameters, sensor technology, and transmission methods to suit different applications – all to provide what matters: the most accurate, dependable, and high-quality data available.

The Vaisala Radiosonde RS41-SG and Vaisala Radiosonde RS41-SGP are tailored to the needs of meteorological institutes and other organizations. Vaisala RS41 radiosondes are trusted by meteorological institutes and other organizations worldwide for delivering industry-leading data accuracy.

Both the RS41-SG and RS41-SGP models provide superior PTU and wind measurement performance, automated ground checks, GNSS data, and add-on sensor connectors – all in a robust and easy to use design.

### Pioneering weather-related cybersecurity

Multi-GNSS technology in Vaisala radiosonde RS41 models uses data from multiple navigation satellites, increasing resilience against GPS interference by 60% on average\* and securing accurate weather forecasts in challenging environments. Our industry-first message authentication ensures that radiosonde messages remain unaltered during transit to provide reliable weather data. Upgrade to Vaisala Cirrus Sounding System MW51 to unlock these advancements.

\*Based on 2024 Vaisala test soundings in Finland comparing RS41 models with and without multi-GNSS.

