

## Vaisala Forward Scatter Sensor FD70

Unsurpassed precipitation sensitivity and reliable visibility measurement in all weather conditions



### Key benefits

#### Maintain safe, informed operations at any airport

Accurately detects 100% of even the lightest precipitation or weather events including freezing drizzle and dust for lapse-free, 24/7 awareness

#### Save on time, personnel resources, and costs while improving system performance

Low maintenance reclaims personnel time with clear messages, remote performance monitoring, and automatic diagnostics and troubleshooting

#### Gain an integrated, secure sensing network with low lifetime costs

Uncompromising accuracy and configurable design replaces several sensors and uses fewer spare parts, while integrated software security maintains data and instrument integrity

**Protect lives and optimize airport operations. Get unparalleled accuracy and reaction time to make the most informed decisions possible.**

The Vaisala FD70 is the best-in-class forward scatter sensor for visibility and present weather, including runway visual range (RVR). It sets the standard in airport weather accuracy, detecting 100% of precipitation from the lightest drop to the end of the storm.

The device outperforms and can replace several separate sensors including visibility and present weather, freezing rain and rain gauge, and enhances the reliability of AutoMETAR reporting including hard-to-identify conditions. Its pioneering and unique design provides constant, reference grade performance to detect everything from freezing drizzle to sandstorms.

Based on more than 30 years of forward scatter technology development, the FD70 offers the key features customers rely on including fast, uncompromised measurement performance over a wide range of parameters and dependable reliability. Remote access, automatic troubleshooting and low maintenance keep life time costs low while optimizing performance.

### Applications

- Measure real-time visibility (MOR) for assessing aeronautical visibility and RVR
- Monitor present weather for airport and synoptic weather observations
- Identify freezing conditions that trigger safety protocols
- Utilize precipitation intensity and accumulation information for runway maintenance and nowcasting

*Trusted aviation weather from cloud to ground*

## Key features

Full industry compliance with ICAO, FAA, and WMO regulations.

Advanced software security to prevent unauthorized access.

Modular design for easy maintenance with a repair time of less than 30 minutes.

Traceable visibility and rain calibration chain ensures accurate and trustworthy data.

Minimized measurement disturbances

with features such as down-looking geometry, contamination compensation, flying insect filtering and high-power heaters.

Comprehensive reporting includes visibility, present weather, precipitation accumulation, temperature, humidity, droplet size distribution fall speed distribution, kinetic energy, and radar reflectivity.

Frangible mast construction accommodates tilt and height adjustments.

Unique forward scattering light-sheet technology accurately identifies conditions like freezing rain, sand and dust obscuration, and light drizzle.

## Present weather identification available in FD70

- Drizzle
- Rain
- Snow
- Snow grains
- Ice crystals
- Ice pellets
- Freezing drizzle
- Freezing rain
- Snow pellets
- Hail
- Fog
- Mist
- Haze
- Sand
- Dust

## Why Vaisala?

### Experience with perspective

Vaisala is the most experienced aviation weather company in the world. Our trusted expertise includes field data from the world's largest installed base of visibility and present weather technology, including forward scatter and transmissometer technology.

Backed by 85+ years of experience, we have the most expansive base of installed forward-scatter sensors with a presence on every continent.

### Support to count on

Know that you're covered if questions arise with 24/7 global support — now and in the future. We offer dependable support, project capabilities and training so you can get the most from your system.

With decades of experience providing the best technologies and the finest support, Vaisala's philosophy of partnership is unmatched in the industry.

# VAISALA

[vaisala.com/FD70](https://vaisala.com/FD70)



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