

Forward Scatter Sensor FD70

Enhance mission-critical airfield operations with transformative, reliable forward scatter technology



Key benefits

Maintain safe, informed operations at any airfield

Accurately detects 100% of even the slightest precipitation and non-aqueous particles for lapse-free, 24/7 awareness of airfield visibility.

Sustain top performance in the harshest conditions

Detects every type of obscuration that conventional technologies struggle with, no matter what the elements bring.

Gain integrated, secure sensing capabilities

Uncompromising accuracy and configurable design replaces several sensors, while integrated software security maintains data and instrument integrity.

Focus on performance

Remote access, automatic troubleshooting, and low maintenance with fewer spare parts keep lifetime costs low while optimizing performance.

Rely on dependable accuracy

Based on more than 30 years of forward scatter technology development with fast, uncompromised measurement performance over a full range of parameters with dependable accuracy.

Optimize airfield operations — and know the weather before you see it. From dust to ice and freezing rain, get unparalleled accuracy detecting 100% of precipitation and other elements to support safer and more efficient takeoffs and landings.

Master the elements, improve efficiency and fulfill your most important operations. The Vaisala Forward Scatter Sensor FD70 is the only forward scatter sensor in the world to detect every obscuration from sand, dust and precipitation, and is best-in-class for visibility and present weather including runway visual range (RVR).

More precise than human observation, the FD70 provides constant, reference grade performance to automatically detect and report the slightest amount of visibility obscuration whether from precipitation or non-aqueous particles. The device outperforms and can replace several separate sensors including visibility and present weather, freezing rain and rain gauge.

Based on more than 30 years of forward scatter technology development, the FD70 offers the key features customers rely on: fast, uncompromised measurement performance and dependable reliability. Remote access, automatic troubleshooting and low maintenance keep lifetime costs low while optimizing performance.

*Making weather
your ally*

Key features

Visibility range of up to 100 km (62 mi)
Meteorological Optical Range (MOR)

Proven look-down geometry
to protect against common
measurement disturbances

Thin light sheet and fast sampling rate
for detection and processing
of each particle as single event
from freezing rain, sand and dust
obscuration, to light drizzle

Optimal recommended
forward scatter
angle of 42° with full
ICAO, FAA, and WMO
regulation compliance

Highest representative
extinction coefficient (EXCO)
determination possible

Versatile connectivity
to enable easy remote access

Flying insect compensation to automatically
filter them out from measurement results.

Independent window contamination
measurement and compensation
to ensure constant accuracy and ease of maintenance

Superior visibility and present weather
identification even for low-intensity and
mixed or frozen precipitation

Comprehensive reporting

including visibility, present weather,
precipitation accumulation, temperature, humidity,
droplet size and fall speed distribution,
kinetic energy, and radar reflectivity

Lithometeor and hydrometeor detection
to detect 100% of every obscuration

The FD70 is the only present weather
sensor in the world that detects
visibility obscuration from all
of these elements.

Drizzle	Ice pellets
Dust and sand	Mist
Fog	Mixed precipitation
Freezing drizzle	Rain
Freezing rain	Snow
Hail	Snow grains
Haze	Snow pellets
Ice crystals	

Why Vaisala?

We believe in the relentless pursuit of quality and performance,
anywhere and everywhere.

Vaisala is the only company in the market with more than 30 years
of field data from the world's largest installed base of visibility and
present weather technology, including thousands of commercial
and military airbases. Backed by 85+ years of measurement
expertise, our solutions are trusted in more than 170 countries pole
to pole.

You're covered if questions arise with 24/7 global support—now
and in the future—plus 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



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