

Visibility Sensor PWD20W

VAISALA

Product Spotlight

Turbine-mounted visibility sensing for intelligent light emission

The Vaisala PWD20W is a world-class visibility sensor designed specifically for wind turbine installations. It allows turbine operators to intelligently adjust their light emissions, improving satisfaction for nearby communities and meeting emerging regulations.



Key benefits

Intelligent system design

Built on proven Vaisala forward scatter technology

Trusted to meet strict requirements from regulators

Simple integration and installation with existing ADLS technologies and any turbine type.

Why Vaisala?

We are innovators, scientists, and discoverers who are helping fundamentally change how the world is powered. Vaisala elevates wind and solar customers around the globe so they can meet the greatest energy challenges of our time. Our pioneering approach reflects our priorities of thoughtful evolution in a time of change and extending our legacy of leadership.

Vaisala is the only company to offer 360° of weather intelligence for smarter renewable energy, nearly anywhere on the planet. Every solution benefits from our 85+ years of experience, deployments in 170+ countries, and unrivaled thought leadership.

Our innovation story, like the renewable energy story, continues.

New regulations for Aircraft Detection Lighting Systems (ADLS, or BNK in Germany) took effect in 2020 and have created new pressures – and opportunities – for wind farm operators. Many are unaware that the regulations allow for ADLS systems to be improved from basic “on/off” functionality, with real-time visibility values determining how brightly the lights switch on. The Vaisala PWD20W is the ideal visibility sensor for this purpose, and it allows for up to a 90% reduction in brightness – dramatically improving satisfaction for nearby residents.

Stay compliant in a changing regulatory environment

Obstruction lights are required for aircraft safety, but they disturb residents. Visibility measurement with the PWD20W allows for more intelligent dimming of lights rather than simple, 100% on/off functionality.

Serve communities and avoid negative PR

Residents in communities around wind farms are negatively impacted by bright, flashing lights, leaving them with a poor perception of the wind energy industry. ADLS with visibility-based brightness control provides best possible protection for residents against disturbances, and it shows care and diligence on the part of turbine operators.

Assist pilots and enhance safety

Pilots in passing aircraft are affected by turbine lighting (both conventional and infrared), which can flood their field of view and distract them from flying tasks. Visibility sensors dramatically reduce these effects and enable pilots to fly more safely.

