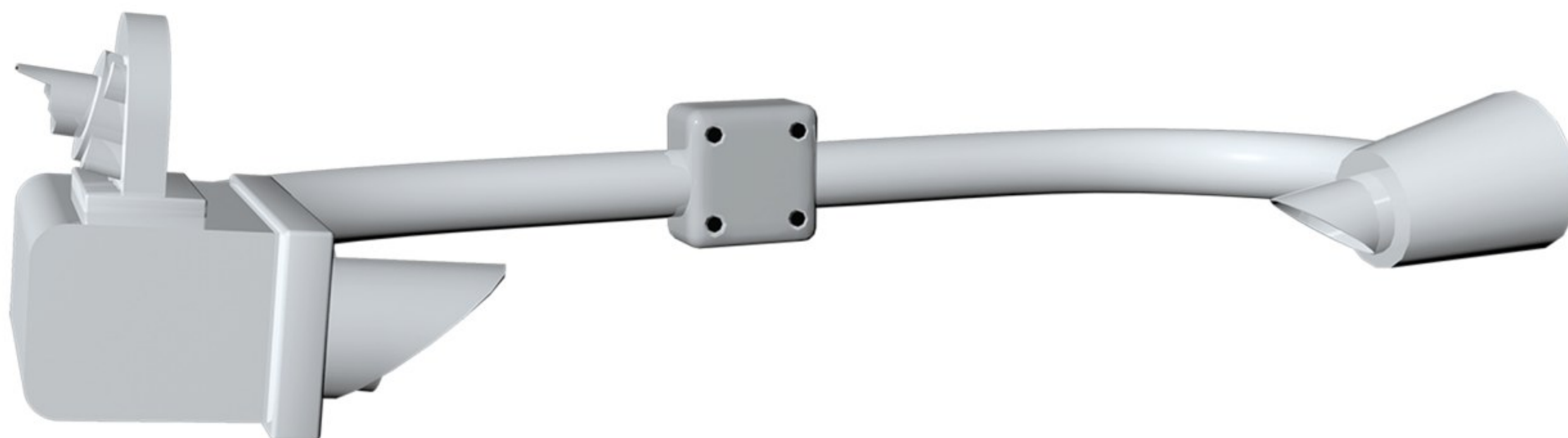




RUNWAY VISUAL RANGE (RVR) VISIBILITY INSTRUMENT



Introduction

The Runway Visual Range (RVR) Visibility Instrument developed by Zhice Yunlian is a sensor that automatically and continuously monitors atmospheric visibility and ambient background luminance, mainly providing Visibility (VIS) and Runway Visual Range (RVR) data for aeronautical meteorological observation services.

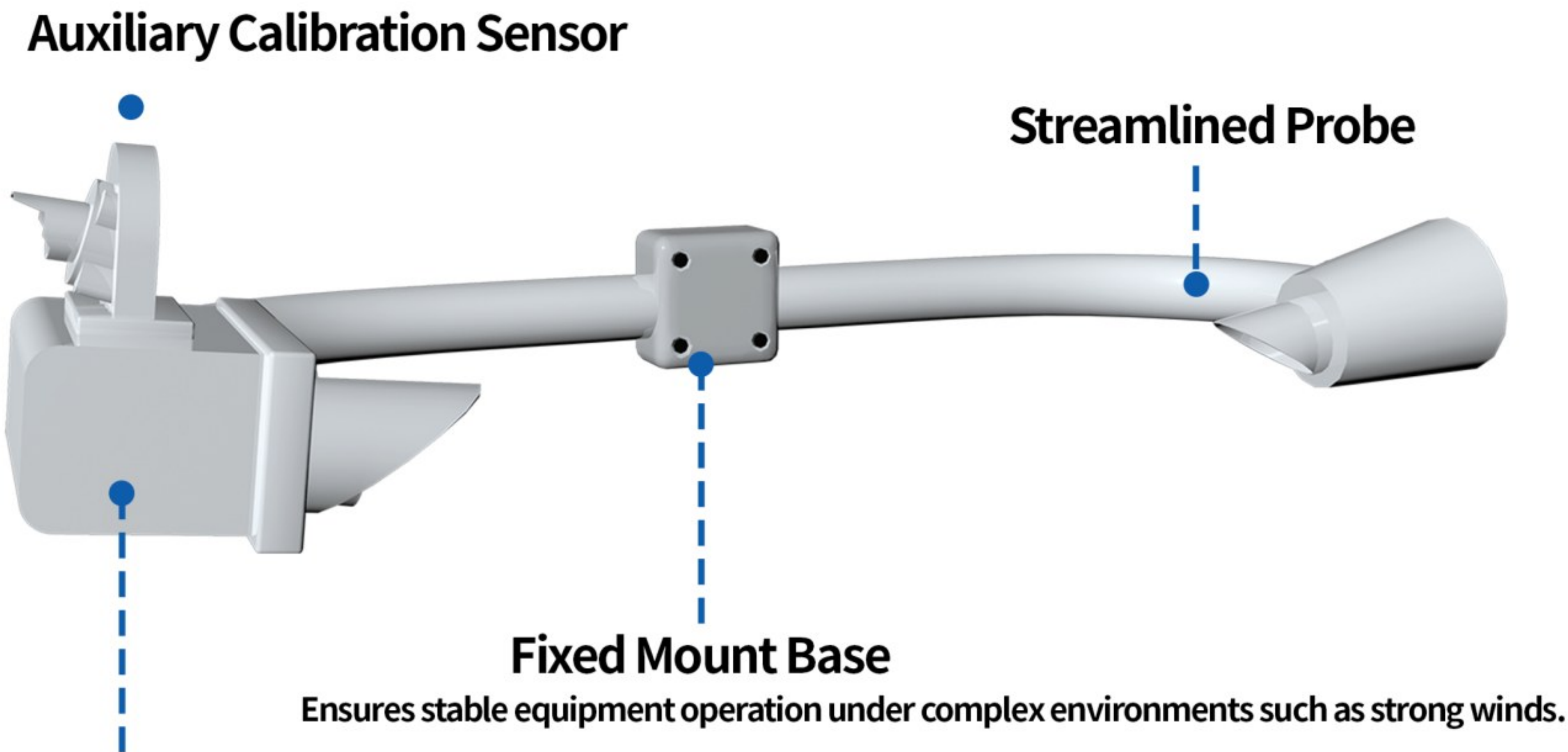
Based on the forward scattering principle, it actively emits infrared light beams and calculates atmospheric visibility by measuring the scattering effect of atmospheric particles in the sampling area. It integrates a background luminance measuring unit to monitor ambient background light brightness.

Features

Adopts an integrated design with compact size and easy installation, featuring stable performance, accurate data and strong environmental adaptability. Equipped with professional application software to receive observation data from the instrument. It can automatically calculate runway visual range by manual setting or receiving runway indicator light brightness. Data display and storage fully meet the technical specification requirements of aeronautical meteorological observation services.



? Structure

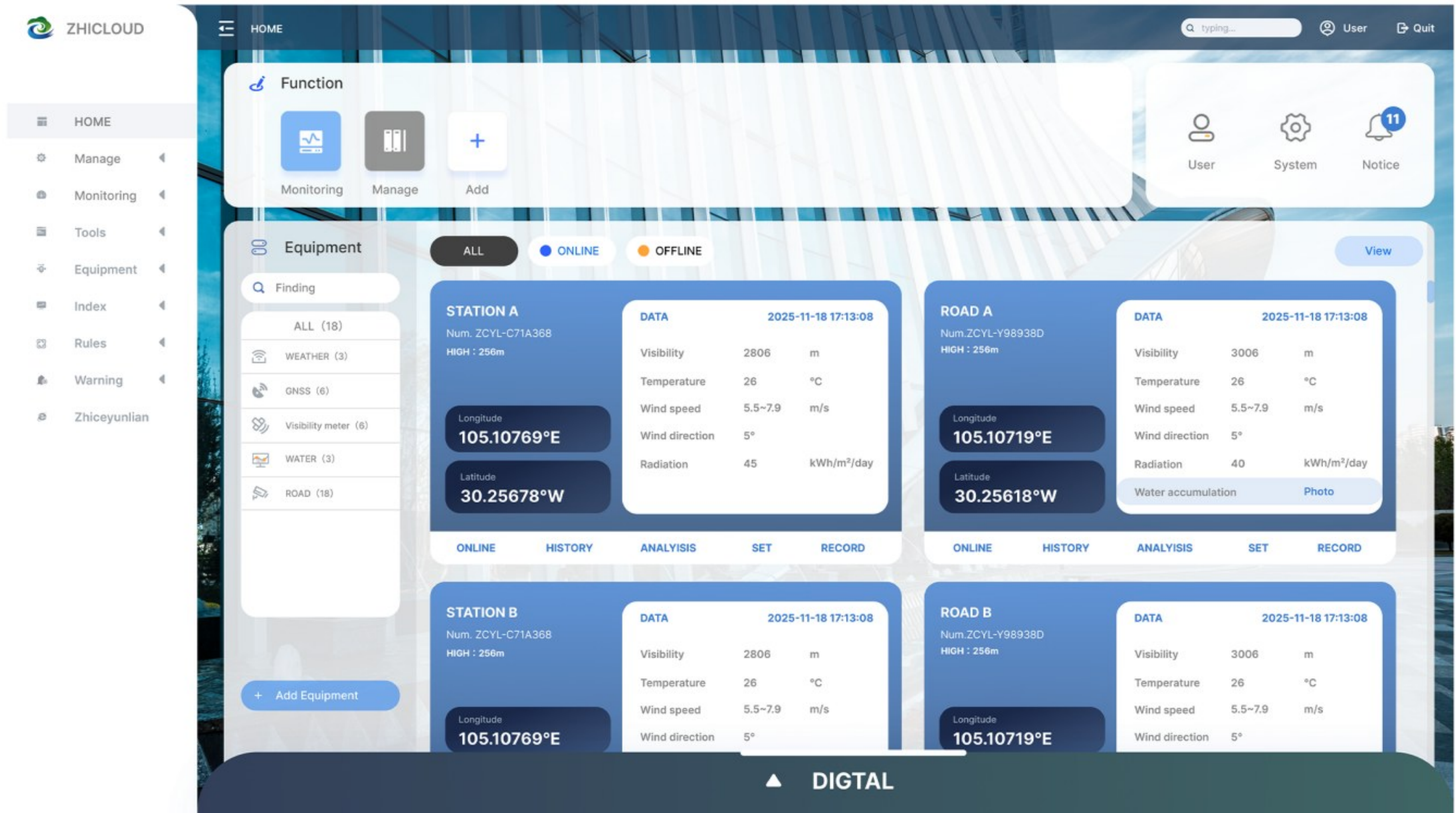


Detection & Control Unit

Internally integrated laser transmitter assembly, signal receiving sensor and control circuit board.
Function: Emits detection laser, receives atmospheric scattered echo, processes raw signals and calculates visibility values.

? Specifications & Parameters

Category	Item	Parameter Description
Physical Specifications	Dimension (L×W×H)	(735±10) mm × (360±10) mm × (178±10) mm
	Weight	≤3kg
Measurement Performance	Visibility Measuring Range	10–30000m
	Measurement Accuracy	±10% (≤10000m) ; ±15% (>10000m)
	Ambient Background Luminance	4–20000 cd/m²
	Data Output Interval	60s (default); adjustable 10–120s in multiples of 10s
Electrical Performance	Power Supply	DC 10–24V
	Power Consumption	≤3.5W @12V
	Communication Interface	RS232 / RS485
Environmental Adaptability	Operating Temperature	-45~55℃
	Operating Humidity	0–100%RH
	Storage Temperature	-50~60℃
	Storage Humidity	0–100%RH
	Protection Grade	IP66 / IP67 optional



ZhiCloud Cloud Platform

Centrally manages all types of monitoring equipment . It displays real-time data and location information of all IoT devices on site. It also supports equipment status monitoring, historical data query, curve analysis and other functions, helping users remotely grasp environmental and equipment conditions of all monitoring points.



Visualization of Visibility Monitoring Data

Displays real-time measured values such as "1-minute / 10-minute average visibility" and "effective light intensity". It intuitively shows visibility variation trends via data curves, and records raw data logs for users to check and analyze dynamic visibility fluctuations.