

LINEVISION RS-1



CAMERAS

Behind one-way glass, dual high-resolution cameras observe the ROW and conductors. The primary camera offers high-resolution imagery and while the secondary camera features an ultra-low-light sensor that captures images 24/7. The cameras support detection of hazards around conductors and the ROW while enhancing Dynamic Line Ratings and providing operators with on-demand visibility into their assets.

Primary Camera

Resolution **4192 x 3120 px** Aperture **F3.9** FOV **56°**

Low-Light Camera

Resolution **1920 x 1080 px** Aperture **F2.5** FOV **80°**



WEATHER STATION

Measures wind speed and direction, ambient temperature, and relative humidity. Our ultrasonic anemometers provide more accurate wind readings at the tower/conductor level without moving parts or maintenance requirements.

Weight	1.5 lbs (0.7 kg)	
Ingress Protection	IP65	
Wind Speed	Accuracy ±2 %	Resolution 0.01 m/s
Wind Direction	Accuracy ±2 %	Resolution 0.1°
Relative Humidity	Accuracy ±2 %	Resolution 0.1 %
Temperature	Accuracy ±0.3 °C	Resolution 0.1 °C



ADDITIONAL SENSORS

An PM 2.5 optical air quality sensor enables detection of smoke and other particulates. A six-axis inclinometer/accelerometer measures tower tilt and vibrations, detecting hazards like vegetation contact and asset failure. An onboard GPS unit communicates the device's exact location.

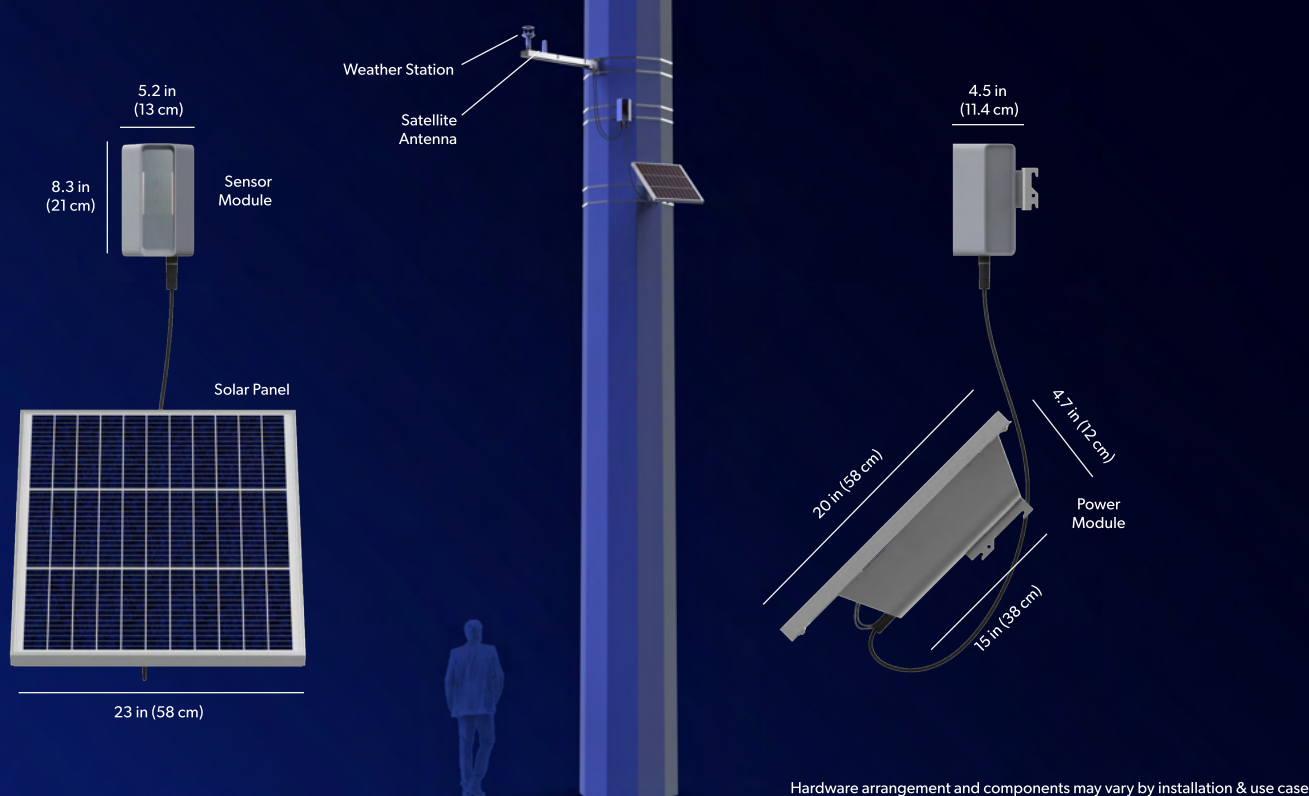
Optical Air Quality Sensor	Accuracy 10%	Resolution PM 2.5
Accelerometer + Inclinometer	Accuracy 0.5°	Six Axes

OPERATION

Operating Temp	-20° C to +60° C
Communications	Encrypted LTE; Optional satellite module
Intelligence	Edge processing for rapid computer vision; Automatic data collection triggers; Over the air (OTA) updates

WARRANTY & CERTIFICATIONS

Certifications	FCC Part 15, CE, UKCA
Origin & Compliance	Made in USA in an ISO 9001 certified environment; Build America Buy America (BABA)
Warranty	Full hardware maintenance and warranty for life of contract



ENCLOSURES

Sensor Module

Weight	Approx 2.4 lbs (1.1 kg)
Ingress Protection	IP66
Optical Window	One-way glass; UV filter; dust & water repellent; powered thawing

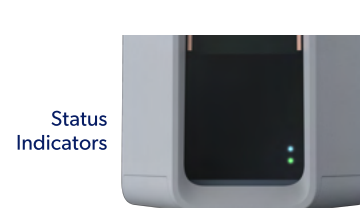
Power Module

Weight	Approx 21 lbs (7.7 kg)
Ingress Protection	IP66
Durability	Reinforced internal metal frame

INSTALLATION

The RS1 system is designed for safe and rapid installation without line work or outages. A french cleat system allows for easy securement and adjustments. Cables plug in with ergonomic connectors that provide tactile feedback. Once installation is complete, LED indicators verify that the system is online and communicating.

Tower Compatibility	Compatible with all towers and voltages
Ease of Install	Status Indicators; Ergonomic connectors; French cleat mounting system; Universal Brackets; Integrated Level; Automated setup



POWER SUPPLY

BATTERY

Lithium Iron Phosphate (LiFePO4) battery with a 10-year lifespan and power for over 5 days without sun	
Weight	7.2 lbs (3.3 kg)
Voltage/Capacity	12.8 V / 24 Ah
Integrated Protections	Voltage and temperature limit detection

SOLAR PANEL

Independently powered by safe, reliable, clean energy	
Weight	7.72 lbs (3.5 kg)
Ingress Protection	IP65
Maximum Power	50 W @ 12 V