Uncompromising accuracy for public safety

VAISALA

Case Study

The client:

ENVINET GmbH

Vaisala solution:

Weather Transmitter WXT536

How ENVINET integrated dependable weather measurement into their world-leading radiation monitoring system.

Headquartered in Germany, ENVINET's environmental measurement solutions are trusted worldwide for monitoring radiation levels and alerting decision makers if unexpected levels are detected. Thousands of their devices are in operation in dozens of countries all over the world.

THE CHALLENGE:

Measurement precision and reliability

As ENVINET set out to develop MIRA, the new generation of gamma dose rate (GDR) monitoring systems, one thing was clear: It must be possible to integrate a top-performing weather measurement device with the system.

MIRA was created for use in a wide range of applications such as nationwide monitoring networks, remote monitoring of nuclear power plants and other nuclear facilities, as well as emergency preparedness and response. The system supports stationary or mobile use with extremely low power consumption for autonomous operation.

The right weather measurement device had to fit all these requirements and be every bit as precise and reliable.

"Public safety is the top reason we developed MIRA and we are impressed with the quality and dependability of the WXT536. Vaisala is as committed to excellence as we are, and it shows."

Dr. Harald Breitkreutz
Product Manager

THE APPROACH:

MIRA met its match with the Vaisala Weather Transmitter WXT536

ENVINET acquired the WXT536 specifically for its capabilities in quantitative rain measurement to assess GDR increases from precipitation wash-out of radon progenies, quantitative wind speed and direction to assist dispersion calculations of radioactive contamination, mobile use and serial interface integration.

The WXT536 also features very low power consumption to support 24/7 operation without mains power supply, and MIRA uses the device's temperature, air pressure and humidity measurement to help customers assess the general GDR baseline. The robust, lightweight and reliable design perfectly complement the MIRA system.

THE RESULTS:

Dependable radiation + weather measurement

The combination of radiation and weather measurement and monitoring makes MIRA the most dependable and highest-quality system of its kind.

The simple and flexible integration of the WXT536 made the choice easy for ENVINET, and its cost-efficient design adds value to the overall solution. When used in the field, customers can utilize MIRA to monitor weather conditions and analyze any correlation between the weather and possible radiation levels — critical for situational awareness and research.

Precise accuracy and reliability matter most, especially when it comes to public safety. The integration of Vaisala and ENVINET technology provide both.

Why Vaisala?

As the global leader in weather and environmental measurements, Vaisala empowers businesses and community leaders to build resilience to climate change and extreme weather events. Our 85+ years of expertise is grounded in science, innovation and our unwavering commitment to constantly evolving.

We boldly demonstrate that a culture of resilience and a connection to nature can create new ways of smarter, resilient living. We are champions for smarter, safer and more sustainable urban communities.

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