VAISALA

Beam Weather Station for traffic management

Product Spotlight

Local road weather and air quality measurements are essential along busy roads, from easing weather-related congestion to reducing emissions through traffic rerouting and signal timing.

Vaisala Beam Weather Station BWS500 is a powerful, flexible and compact air quality and road weather station that provides key measurements for timely, accurate decisions.



Key benefits

Get accurate insights for multiple applications from traffic management to air quality monitoring and more.

Measure just what you need such as weather parameters, road weather parameters such as pavement temperature and road condition, carbon dioxide (CO₂) and the six most important air pollutants, solar radiation, water and snow depth.

Start now with simple and flexible setup, then choose your connectivity and communication for the setup that works for you.

Rely on uncompromising accuracy and security with professional grade sensors and best-in-class data security.

Depend on future-proof technology built on nearly 90 years of weather measurement expertise plus a global network of expert support.

Why Vaisala?

Vaisala's weather and environmental technologies take every measure for unrivaled road network awareness — keeping roadways safe and efficient in any season.

Our instruments and intelligence are built on 85+ years of innovation and are known as the gold standard for precision and reliability. We understand how accurate data and insights do even more by driving sustainable road operations and climate action. Our holistic approach provides customers with end-to-end simplicity, valuable partnership, and a comprehensive portfolio that is constantly evolving.

As recognized experts in transportation, we continue to channel our curiosity into new ways of making roadways safer and more efficient than ever.

Beam Station can aid strategic decision-making for transportation planning, infrastructure development and policy formulation. Built to scale for your needs, the instrument is perfectly suited for optimizing traffic management, monitoring air quality, and emergency preparedness to ensure the safety of travelers and transportation personnel.

Flexible, accurate, and ready to measure what's important

Beam Station is quick to set up with a wide variety of professional grade sensors that provide reliable and accurate data, while best-in-class data security protects your weather and environmental network and data from modern threats.

Install on existing infrastructure like street poles, traffic signal masts or overhead bridges to easily fill observation gaps along busy roads. Wirelessly and securely transfer the measurement data directly from Beam Station to your own system, or visualize select measurements with Vaisala cloud services.

Deploy as a standalone station or create a network of several stations for valuable insights on the most important weather parameters, air pollutants and other environmental parameters.

You're covered with 24/7 global support from the only global company with nearly 90 years of expertise offering the full package: weather and environmental sensors, network systems and data storage.

