

Vaisala TempCast

Product Spotlight

Get road weather measurements from challenging locations, easily and affordably

Maintaining safe driving conditions and mobility means you need to monitor conditions on your road network. You may already have road weather stations in place, but there could be some areas that are not yet covered or in which road weather conditions often differ from the rest of the network due to topography, shading or other reasons. Vaisala TempCast, part of our Xweather family of subscription based products, is easy to install anywhere – even in places that have previously been challenging, such as on bridges or remote locations.



Key benefits

Measures air temperature, humidity, dew/frost point and surface temperature without touching the pavement

Ideal for difficult locations such as bridge installations, remote locations and cold spots

Wireless, secure NB-IoT communication

Easily accessible data through Wx Horizon or API

Reports observations with enhanced point forecasts

Easy sensor replacement from ground level

Maintenance-free operation: Self-powered with 3-year battery lifetime

TempCast with surface temperature measurement for bridges and other locations where drilling a hole in the ground is not an option

TempCast with humidity and air temperature for co-locating with Vaisala GroundCast, which enables accurate ice and frost monitoring

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.

Wireless with built-in connectivity and a three-year battery life, TempCast is an ideal solution for getting additional data in your observation network. TempCast measures air temperature, humidity, dew/frost point and surface temperature without touching the pavement so you can target treatments. The automatic connection to Wx Horizon lets you instantly start improving your winter maintenance operations with visualizations, alerts, observation-enhanced road weather forecasts, and much more.

A convenient way to get more road weather data

Get measurements from locations currently not covered by your road weather stations. Additional observations leads to better information, and TempCast helps you facilitate targeted treatments and avoid unnecessary use of treatment materials.

Fasten in place, anyplace

Simply attach to a pole and activate with a mobile app, without connecting to road weather stations. No cables or external powering plus three years of maintenance-free operation lets you target treatments, even in remote or otherwise difficult locations, to keep all areas of your roads safe.

Better data, better forecasts

High quality observations are the basis of all high quality forecasts and TempCast uses Vaisala's HUMICAP humidity sensor for reference grade measurements. Forecasting models can also use local observations for validation, learning and self-improvement.

An instant connection

Automatic connection to Vaisala Wx Horizon lets you instantly start improving your winter maintenance operations. Gain access to visualizations, alerting and notifications, 72-hour enhanced road weather forecasts and 10-day atmospheric forecasts – no actions or additional subscription needed. Using your own winter maintenance decision making system? Access the data with the Wx Horizon API.

Choose your TempCast

TempCast with surface temperature measurement is ideal for bridges and other locations where drilling a hole in the ground is not an option. TempCast with humidity and air temperature is ideal for co-locating with Vaisala GroundCast, which enables accurate ice and frost monitoring.

