

## Vaisala Guardian Road Weather Information System



Guardian data is presented in a way that aids decision-making.

### What is Vaisala Guardian?

The Vaisala Guardian is a non-invasive Road Weather Information System (RWIS) that reliably and cost-effectively provides you with the most accurate road surface or pavement specific weather information available.

The Guardian enables you to remotely monitor road surface conditions in real-time, with precision. It also provides road weather data that makes forecasting far more accurate and reliable.

### It is the clear choice

Featuring simple “do it yourself” installation, ease of use and virtually maintenance-free operation, it is the clear choice for municipalities, cities and towns. Guardian is a non-invasive RWIS solution that is available at a fraction of the total cost of an in-pavement sensor system.

### The advantages of a non-invasive system

Municipalities, counties and towns are choosing Guardian for locations that are challenging to site weather stations with embedded sensors. The Guardian employs state-of-the-art sensors that are easily mounted above or beside roadways.

### More and accurate data

Employing state-of-the-art technology and laser spectroscopy, Guardian’s sensors measure a larger surface area. Guardian accurately measures the road surface state and provides a variety of data; amount of accumulated water, frost, ice, slush and snow, real-time measurements of grip, humidity, air and pavement temperature. This enables you to instantly assess the effectiveness of winter maintenance efforts and the level of traction and safety offered by roadways and sidewalks.

Guardian provides you with significant lead time to take the appropriate maintenance action before road conditions deteriorate.

### Ease of installation and relocation

Guardian can be quickly and easily attached to existing structures, such as lampposts, signposts and buildings. Once mounted, you just hook up power, hit the switch and start transmitting data.

### Virtually maintenance-free operation

No need for maintenance contracts and practically no risk of costly downtimes. Guardian requires only periodic cleaning of its sensor lenses and it will automatically inform you when the lenses are dirty.

### Reliable support

Vaisala provides 24/7 helpdesk support during winter to answer any questions you might have.

### Expandability

Guardian can be incorporated into established weather station systems, or can be used as a starting point to develop a relatively low-cost, flexible, easy to install system.

## Be alerted to deteriorating road conditions

Set the Guardian system to automatically send alerts to your PC, cell phone or PDA to notify you when road conditions reach your configured thresholds. Visual confirmation of all measured conditions and levels of traffic is provided by the Guardian's camera.



*Use Guardian's traffic camera and you always have an eye on the road when it matters most.*

## Guardian benefits

### Operational Benefits

- Improved decision-making through real-time information
- Measures grip: an excellent metric to gauge the success of - and need for - winter maintenance actions
- Provides significant lead time before maintenance actions become necessary
- Facilitates improved road safety and accident prevention (injury, damage to property and loss of life)
- Eliminates guesswork and promotes the effective allocation of resources
- Ready for immediate use (minimal training required)
- Quick "do it yourself" installation and relocation: easily attached to lighting poles, traffic signals or buildings
- Virtually maintenance free
- Year-round applications
- Improves the accuracy of forecasting
- Risk mitigation (accurate data and historical records reduce exposure to litigation)
- Convenient, centrally managed solution

### Financial Benefits

- Promotes significant annual savings in equipment maintenance, road treatment materials, labour and fuel
- Cost effective: Reduced installation cost, due to no requirement for slot-cutting, limited civils works and relatively low power consumption
- Saves you the cost of purchasing and operating a server and managing data

### Environmental Benefits

- Environmentally friendly: reduces use of fuel and anti-icing agents
- Promotes reduced contamination of soils, vegetation, water, highway facilities and vehicles
- Helps to minimize the corrosion of pavement, bridges and infrastructures caused by road salt

### Information Benefits

- Immediate access to meaningful real-time data that is easy to understand
- Access highly accurate data 24/7 from anywhere with an Internet connection
- Automated alerts by PC, cell phone or PDA when detected conditions meet thresholds that you set
- Includes data collection and data management at no extra cost
- Option to access shared information with neighbouring authorities for an increased scope of information

### System Features

- Integral modem unit for wireless communication with server
- Display in Vaisala visualisation software
- NTCIP option

### Vaisala Support

- 24/7 helpdesk support in winter months
- Data management, display and archiving responsibilities are managed by dedicated experts
- You benefit from decades of experience in RWIS and unsurpassed levels of reliability and expertise
- Vaisala is the only company that manufactures all the sensors and RPU electronics on its road weather stations

# VAISALA

For more information, visit [www.vaisala.com](http://www.vaisala.com) or contact us at [sales@vaisala.com](mailto:sales@vaisala.com)

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