

Remote road sensors DSC211 and DST111

Product Spotlight

Reliable surface state and temperature data for safety and efficiency.

World class road condition data – without invasive installation and maintenance.

Around the globe, various organizations have adopted Vaisala's rugged, non-invasive road condition sensors. With simple installations that avoid traditional costs and complexities, the DSC211 and DST111 sensors provide accurate data, quick time to value, and improved decision-making.



Key benefits

Safer roads, better maintenance: These sensors enable you to deliver on your core mission of improving safety through more effective maintenance.

Cost efficiency and time to value: The sensors' simplicity, ruggedness, and ease of use add value beyond the data they provide – especially for agencies under budgetary pressures.

Accurate, data-driven decisions: With outstanding uptime and data availability, the sensors provide 24/7 road intelligence in all weather conditions – improving efficiency and decision-making.

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.

The DSC211 Remote Surface State Sensor series uses proven laser technology to identify water, ice, slush, snow, frost, and determine grip – even with heavy traffic. The DST111 Remote Surface Temperature Sensor measures infrared radiation day and night, applying intelligence signal processing for outstanding accuracy.

With these technologies, there's no need to stop traffic or risk worker safety with disruptive installations. They can be mounted to poles, lamp columns, or overhead structures. And, while the sensors can be used individually, the best data results are achieved by combining DST111 and DSC211 with other sensors via a Vaisala weather station.

Applications

- Remote road condition measurement
- Road maintenance decision-making and prioritization
- Long-term roadway assessment/analysis from multiple reference points

Advantages over embedded sensors

- Versatile, with non-invasive installation
- Sensitivity for early detection of ice crystals before they impact traction
- Easy-to-read grip data
- No damage from premature pavement failure, overlays, snow plows, or pooling
- Optimized maintenance with help of lens dirt indication

