

DECENTLAB

HIGH-PRECISION WINTER ROAD MAINTENANCE SENSOR FOR LoRaWAN®



Accurate information and data for your road management

Applications

- Frost warning and alerting
- Remote outdoor monitoring
- Road weather information systems (RWIS)
- Winter road maintenance

Measurements

- Road surface temperature
- Air temperature
- Relative humidity
- Dew point temperature (calculated)

Simple Installation

- Place & measure
- Battery operation (2 C alkaline batteries)
- Wireless data transmission via LoRaWAN

Easy Monitoring

- Alerting
- Visualisation of data in real time (Mobile / Desktop)

DecentLab

The measuring device DL-CWS from Decentlab reliably measures a range of environmental parameters for road management

Remote outdoor monitoring

In addition to road surface temperature, the DL-CWS also measures air temperature and relative humidity, providing comprehensive environmental data for road monitoring.

Dew point temperature calculation

The sensor calculates the dew point temperature, which is a critical parameter for understanding moisture conditions and potential road icing.

Weatherproof Housing

The robust polycarbonate housing, which is known for its weatherproof, shockproof and UV-resistant properties, ensures the durability of the sensor in harsh outdoor conditions.

Long-term monitoring

Enables continuous real-time monitoring over extended periods of time without the need to change the battery.

Sensor values

Road surface temperature:

-40 ... 70°C (-40 ... 160°F)

Accuracy: $\pm 0.5^{\circ}\text{C}$ (-40 ... 60°C)

Air temperature:

-40 ... 70°C (-40 ... 160°F)

Accuracy: $\pm 0.4^{\circ}\text{C}$

Relative humidity:

0...100 %

Accuracy: $< \pm 3 \%$ or better

