

# Road Surface Condition Sensor

**odak**<sup>®</sup> R&D  
CENTER  
smart city technologies



## General Application Areas



Highways



Accident  
Black Spots



Bridges

## Features

- Measure the thickness of ice, snow and water on the road surface
- Contactless Detection Technology
- Convenient Installation
- Low Maintenance Cost
- Compatible with Existing Road Monitoring System

## Applications

- Land Landmarks
- Accident Prone Areas
- Road Condition Early Alarm System
- Points Receiving Heavy Rain and Snowfall

## General Information

The Road Surface Condition Sensor is a non-contact road surface condition detector. Thanks to its laser-assisted remote sensing technology, it can measure with high accuracy over a pole mounted on the roadside. Multispectral measurement technology enables accurate detection of road surface temperature and ice, snow and water thickness on the road surface.

The Road Surface Condition Sensor is mounted in a robust and durable housing to ensure stable operation, and the heater is automatically activated to provide accurate data for uninterrupted and accurate operation in cold climatic conditions.

Traditional asphalt-embedded temperature sensors are difficult and laborious to install and maintain. With the new generation of road surface condition sensors, there is no need for asphalt cutting and lane closures.

It saves the field team from laborious calibration and adjustments. Thanks to its digital interface, it can be used together with the meteorological weather station and all data can be monitored on the same screen.

## Technical Specifications

<b>Measurement Distance</b>	: 2-13 meters
<b>Diameter of the Measured Area</b>	: 23 cm (typical, depends on installation distance)
<b>Angle</b>	: 30-90°
<b>Power supply</b>	: 24VDC / 220V AC (Optional)
<b>Power consumption</b>	: 4W (Including Lens Heating)
<b>Distinguishable road condition</b>	: Dry, Damp, Wet, Snow, Ice and Frost
<b>Lens contamination</b>	: Measure the level of pollution and compensate automatically
<b>Communication</b>	: RS485 or RS232
<b>Protection Class</b>	: IP65
<b>Size</b>	: 400(L)×136(W)×220(H)
<b>Operating Conditions (Temperature / Humidity)</b>	: -40°C - +70°C / 0 - %100

## Road surface condition parameter output

Parameter	Measurement Range	Resolution
Water layer	0.00-10mm	0.01mm
Ice	0.00-10mm	0.01mm
Snow	0.00-10mm	0.01mm
Level of grip	0-1	0.01
Road surface temperature*	-40 °C~+70 °C	±%1 veya ±1 °C