

Mobile Road Condition Detector

»Product Introduction

The HY-MRSS2E is a vehicle-mounted road condition detector that utilizes remote sensing technology to quickly and in real time detect the types and accumulated thicknesses of ice, snow, and standing water on the road surface while in motion. It is used to support decision-making for winter road maintenance and safety management.

The instrument features a rugged design and is equipped with a rechargeable lithium-ion battery; it can also be connected to an external power source. Data can be transmitted via Bluetooth to a mobile app for display, or transferred via an RS485 interface to computer software for display and storage.



»Technical Indicators

Project	Measurement Range
Installation Height (Distance)	1 - 1.9 m
Measurement Interval	10 times per second
Power	Built-in 2 x 18650 rechargeable lithium-ion batteries / VDC 12V power adapter
Operating Range	Temperature: -40 ℃ - +80 ℃; Humidity: 0 - 100% RH
Water Thickness	0 - 10 mm
Ice Thickness	0 - 2 mm
Snow Thickness	0 - 2 mm
Grip	0.01 (Slippery) - 0.82 (High Friction)
Road Conditions	Dry, damp, wet, snow, ice, and a mixture of ice and water
Road Weather Phenomena (Optional)	Road Temperature: -40 ℃ - +80 ℃; Environment Temperature: -40 ℃ - +80 ℃
Pavement Materials	Concrete and Asphalt Pavements
Connection Methods	Bluetooth, RS485
Size	437 × 172 × 280 mm

»Applications

- Winter Road Maintenance Decision Support
- Traffic Safety Management on Highways and Urban Roads
- Mobile Inspection on Patrol and Maintenance Vehicles



»Key Features

- Detects the presence and thickness of standing water, snow, and ice on the road
- Measures the road surface friction coefficient, road surface temperature, and ambient temperature
- Supports mobile or fixed installation
- Suitable for areas with heavy traffic and a high incidence of accidents, as well as road sections prone to rain, snow, and ice
- Low maintenance costs



»Product Showcase



