



MARWIS

WINTER ROAD
MAINTENANCE

safety and flow



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Professional mobile devices for weather data recording.
100 measurements per second.

WE FILL THE GAP IN THE WEATHER FORECAST

In what locations there is lack of weather forecast?
The mobile weather sensor helps in acquiring reliable measurement data in real time, at any time and in any place.

MARWIS CHANGES THE VEHICLE FLEET INTO FAST RESPONSE WEATHER STATIONS

How fast will I reach my destination at current weather?
Each navigation system requires reliable meteorological data in order to set a predictable travel time. Starting from simple information about particular location to detailed data concerned with weather on road.

WE WILL HELP TO SAVE YOUR MONEY

What amount of salt is necessary on the road? Less or more? Chose the optimum: sensor registers and sends microclimatic measurements in real time directly to the controller in the spreading vehicle.

MARWIS CREATES ACTIVE WEATHER NETWORKS

Information about the roads winter maintenance are send in real time both to the mobile personnel and management centre, allowing to plan actions. Optimize routes and avoid unnecessary moves.





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MARWIS supplements stationary monitoring network with dynamic (mobile) data, automatically optimizes used brine and creates thermal maps in real time.

Means of measurement (optical spectroscopy): water and ice absorb certain wavelengths differently. Should any of these occur, the spectral characteristic changes. This way weather conditions, water film height and the ice percentage are measured. Other integrated sensors measure road surface temperature and dew point temperature.

Sensors are installed on vehicles, in accordance with the road weather monitoring requirements. MARWIS can be used to detect water, ice or snow and traction. It can be installed in 1 or 2 meters from the measurement point.

MARWIS delivers data regarding:

- › road condition,
- › road surface temperature,
- › water film height,
- › dew point temperature,
- › ice percentage,
- › traction,
- › relative humidity.

When the number of water particles on road surface increases, friction factor breaks down. This way it can be an important factor when making decision about preventive road de-icing. The open interface (RS485, Bluetooth, CAN) allows an easy MARWIS integration with existing winter maintenance monitoring networks. Moreover, MARWIS-UMB can communicate directly with the control systems in the spreading vehicles.





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APM PRO sp. z o.o.
ul. Barska 70
43-300 Bielsko-Biala, Poland

t. +48 33 815 77 38
t. +48 33 816 82 21
f. +48 33 822 81 48

kontakt@apm.pl
apm@apm.pl
www.apm.pl