

Automated Weather Station for Transportation

» Product Introduction



The HY-TWS2E Automatic Traffic Weather Station is designed for use in highway management systems. It provides highway traffic authorities with meteorological data on road traffic conditions to assist them in making informed decisions. This highly intelligent automatic weather station is suitable for a variety of outdoor environments and can operate unattended. It features fully automated data collection, storage, processing, and transmission capabilities, and can be deployed as a standalone unit or as part of a network across multiple platforms.

The integrated data collector utilizes the HY-DMA2 data acquisition module, which serves as a data acquisition and processing unit designed for various sensor series and automatic weather stations. The module features a built-in LCD display and micro-touch buttons, enabling on-site management functions. After comprehensive processing of various parameter signals, the data is transmitted to the central station via standard communication devices. The module is equipped with multiple serial communication ports for connecting to intelligent sensors. It supports both AC and DC power supplies and features intelligent battery charging, ensuring that the automatic weather station can continue to operate in the event of a power outage.

» Technical Indicators

Project		Range
Road Pavement Condition Parameters (Non-contact Remote Sensing Inspection)	Road Temperature	-40–+80 ℃
	Road Conditions	Dry, wet, snow-covered, flooded, iced-over, ice-water mixture
	Grip	0.00 (Slippery) – 0.82 (High Friction)

	Water Thickness	0–10 mm
	Ice Thickness	0–10 mm
	Snow Thickness	0–10 mm
Visibility (Scattering Method)		0–60 m/s (Can be expanded to 75 m/s)
Wind Direction (Ultrasonic)		0–360° (0° and 360° coincide)
Environment Temperature		-50 ℃ – 80 ℃
Environment Humidity		0–100 %RH
Atmospheric Pressure		300–1100 hPa
Rainfall (Radar)		0–400 mm/h

» Applications



•Fully automated data collection, transmission, and monitoring, capable of long-term unattended operation.

•Capable of long-term, stable operation in a variety of harsh environments.

•The sensors used incorporate new technology and have no moving parts, ensuring long-term stability and maintenance-free operation.

•The monitoring system is comprehensive, providing real-time monitoring and transmission of key meteorological parameters that affect traffic safety.

•The core data acquisition and processing unit utilizes a modular, intelligent embedded microcomputer, which offers strong expandability and high reliability, as well as a high degree of intelligence and flexibility, and can be customized according to user requirements.

» Product Showcase

