

Wireless WxT

Combined Weather and Traffic Sensor

Overview

The Wireless WxT sensor is a permanent solution for collecting both traffic and weather data. The Wireless WxT sensor is a self-contained, in-pavement sensor that utilizes Vehicle Magnetic Imaging (VMI) technology to detect vehicle count, speed and classification. In addition, the WxT sensor measures pavement temperature and condition.

The Wireless WxT sensor reports wirelessly to a site controller alongside the roadway, or to a road weather station (RWIS). The sensor features an easily removable lid, which allows for quick extraction of sensor components during road maintenance or sensor maintenance.

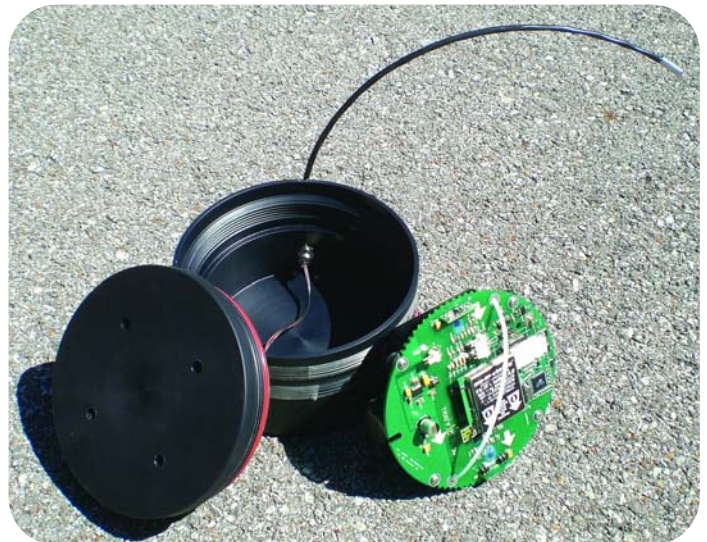
The Wireless WxT provides accurate and essential data necessary for effective traffic analysis, control and management during adverse weather conditions such as fog, icy roads, high winds, or flooding. When used with QTT RWIS, the WxT sensor helps decision makers determine the effects of weather on traffic.

Benefits

- ▶ Single solution for pavement weather and traffic conditions
- ▶ Communicates wirelessly with a roadside controller or RWIS station
- ▶ Low maintenance

Applications

- ▶ Compatible with QTT RWIS and IntelliZone AdvanceWarn® systems
- ▶ Weather “trouble spots”
- ▶ Areas where weather frequently impacts traffic
- ▶ Highways and city streets
- ▶ Toll booths
- ▶ Airports
- ▶ Military bases
- ▶ Integration with incident management systems, such as low visibility warnings and variable message sign notifications



Features

- ▶ Provides accurate vehicle counts, speed, and classification
- ▶ Detects pavement surface temperature, wet/dry condition and chemical percent index
- ▶ Wireless data transfer
- ▶ Easy to use software for viewing data
- ▶ Removable lid allows for equipment to be retrieved before road repaving operations
- ▶ Provides useful data for planning expansion/growth of roadways
- ▶ All models are compatible with QTT road weather stations

Models

Model Wx - Weather and Traffic

- ▶ Monitors traffic and weather data for enhanced studies
- ▶ Helps determine the effects weather is having on traffic

Model ETP - External Temperature Probe

- ▶ External temperature sensor provides reading away from canister, resulting in greater accuracy
- ▶ Provides a wet/dry pavement condition reading and a chemical percent index

Key Specifications

Canister Dimensions	6 inches (diameter) x 3.25 inches (height) (152.4 millimeters x 82.6 millimeters)
Operating Temperature	-40°F to +185°F (-40°C to +85°C)
Chemical Exposure	Sodium chloride (NaCl), calcium chloride (CaCl ₂), calcium magnesium acetate (CMA), magnesium chloride (MgCl ₂), potassium acetate (KAc), etc.
Electrical Operating Voltage	3 volts
Battery Type	Lithium thionyl chloride
Battery Life	Up to 3 years (typically 1 to 3 years, varying with AADT* and polling interval)
Transmitter Frequency	Frequency hopping: ISM 902 - 928 MHz or ISM 2.4000 - 2.4835 GHz
Distance from Groundhog to LBU	425 feet (129.5 meters) maximum; 200 feet (61 meters) recommended
Vehicle Count	Binned; speed, length, daily and AADT*
Vehicle Speed	Binned; custom up to 12 bins
Vehicle Length	Binned; custom up to 6 bins
Polling Intervals	5 to 120 minutes
Chemical Index	0 to 100% (passive detection)
Road Condition	Wet/dry

*AADT denotes Average Annual Daily Total

Features and specifications may vary depending on model.



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