Wireless WxT

Combined Weather and Traffic Sensor

Overview

The Wireless WxT sensor is a permanent solution for collecting both traffic and weather data from one sensor. The Wireless WxT 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. Two sensor models are available, one measures weather conditions from the surface of the sensor lid, the other contains two additional external temperature sensors for added data points and accuracy.

The Wireless WxT sensor reports wirelessly 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, or high winds. When used with QTT RWIS, the WxT sensor helps decision makers determine the effects of weather on traffic.

Benefits

- Single solution for collecting pavement weather and traffic data
- Provides useful data for monitoring the impact of weather on traffic flow
- Communicates wirelessly with an RWIS station
- Low maintenance

Applications

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

Wireless WxT

Combined Weather and Traffic Sensor

Features

- Provides accurate vehicle counts, speed, and classification
- Detects pavement surface temperature, sub-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
- 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 pavement and sub-surface temperature readings away from the canister, resulting in greater accuracy
- Provides a wet, dry, trace moisture, chemical wet, or ice watch status reading along with a chemical percent index when integrated with RWIS**

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	300 to 400 feet (91.4 to 121.9 meters) recommended, depending on frequency used
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	Model Wx - Wet; dry Model ETP - Wet; dry; trace moisture; chemical wet; ice watch

*AADT denotes Average Annual Daily Total
**Available with QTT RWIS integration only.

Features and specifications may vary depending on model.

Distributed by:

Quixote Transportation Technologies, Inc.

SSI Sensing the Future®

Quixote Transportation Technologies, Inc.
4021 Stirrup Creek Drive, Suite 100
Durham, North Carolina 27703
Toll Free: 800-325-7226
Phone: 314-569-1002
Fax: 314-569-3567
www.qttinc.com