

Overview

The Sensit is an active and passive pavement sensor combined. The in-pavement sensor measures the current surface temperature, the freeze point of any liquid on the pavement, and determines whether the pavement surface is wet or dry. The Sensit uses active sensor technology, which means it cools the liquid on the pavement to determine the actual freeze point. This method is carried out independent of chemical type or mixture on the pavement. The Sensit provides data for successful road or runway weather management, and is designed to integrate with RWIS or fixed anti-icing spray systems.

The Sensit has a removable lid, which allows for easy access to all electronics and sensing components. This design makes upgrading or replacing the sensing components quick and easy. In addition, this feature contributes to lower, long-term maintenance costs.

Benefits

- ▶ In-pavement sensor accurately measures pavement temperature
- ▶ Chemical type or mixture on pavement does not affect freeze point measurement
- ▶ Sensors can be placed at key locations
- ▶ Integrates with RWIS or fixed anti-icing spray systems
- ▶ Cost-effective for maintenance operations by reducing labor operating costs and chemical usage

Applications

- ▶ Remote locations
- ▶ Bridge decks
- ▶ Problem areas
- ▶ Runways and/or taxiways
- ▶ Gather data for anti-icing operations and pavement forecasts
- ▶ Fixed anti-icing spray systems



Features

- ▶ Freeze detection algorithm used to detect true freeze point of moisture sample
- ▶ Works with almost any deicing chemical or mixture of chemicals
- ▶ Flush mounting unaffected by traffic and snowplows
- ▶ Durable construction, reliable
- ▶ On-board microprocessor
- ▶ Maximum wired distance from data source is 950 feet (290 meters)
- ▶ Removable lid for easy maintenance or recovering electronics during road resurfacing



Key Specifications

Components	Peltier junction Collection cup temperature sensor Surface temperature probe Electrical conductance pins
Operating Range Specifications	Freeze point: -4°F to +33°F (-20°C to +0.5°C) Surface temperature: -67°F to +185°F (-55°C to +85°C) Survivability range: -67°F to +185°F (-55°C to +85°C)
Communication	RS-485
Maximum Distance from Data Source	950 feet (290 meters)
Sensor Power (150 foot cable)	18 volts to 28 volts Current = 0.5 amp at 28 volts
Operating Temperature Range	-40°F to +185°F (-40°C to +85°C)
CE Compliant	EN-55011:2003 Class A; EN-61000-3-2:2000; EN-61000-3-3:2001; EN-61000-4-2:2003; EN-61000-4-3:2004; EN-61000-4-4:2004; EN-61000-4-5:2004; EN-61000-4-6:2003; EN-61000-4-8:2001; EN-61000-4-11:2004



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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