

Active Pavement Sensor sensit



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
- Cost effective for maintenance operations by reducing labor

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 290 meters (950 feet)
- Removable lid for easy maintenance or recovering electronics during road resurfacing

Overview

Kroneis GmbH Active Pavement Sensor 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.

Technical data

Components

Active Element	Peltier junction Collection cup temperature sensor
Passive Element	Surface Temperature External Probe "Pigtail" Pavement Probe Length: 43.18 cm / 20 inches Electrical conductance pins

Operating Range Specifications

Freeze Point Range	-20 °C to 0.5 °C (-4 °F to 32.9 °F)
Surface Temperature	-55 °C to 85 °C (-67 °F to 185 °F)
Survivability Range	-55 °C to 85 °C (-67 °F to 185 °F)

Electronic Specifications

Micro processor	Processor core module running at 22.1MHz Includes 256K of flash memory and 128K of static RAM
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Communication

RS-485

Maximum Distance from Data Source

>950 feet (290 meters)

Sensor Power

24V@50m , 28V>50m cable	24V to 28V Current = 1A at 28V
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Operating Temperature Range

-40 °C to +85 °C (-40 °F to +185 °F)

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

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



For more information, visit
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