YOUR SAFETY EYES

INTELLIGENT ICE DETECTOR SYSTEM

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The SR-IDS system was developed to detect the possibility of ice formation in problematic places on the roads. Using the SR-45 road stud as base for the structure, this stud incorporates inside a temperature sensor that will be combined with an outdoor humidity/temperature sensor.

**KEY FEATURES**
- Use of SR-45 road stud with high mechanical strength - 120 Tons
- Ideal for snow areas due to its snow plough resistance
- Robust construction, suitable for harsh conditions
- Up to 1Km visibility distance due to high intensity LEDs
- High brightness during day and night
- Powered by solar energy
- Different color LEDs per window
- Vertical signs for greater visibility and drivers alert
- RF communication avoiding a physical connection between the sensor and the vertical signal

**TYPICAL INSTALLATION OF A SR-IDS SYSTEM**
The installation of this system consists of a set of various SR-45 installed on the side of the road, an ice detector placed substantially in the middle and an information panel of the possibility of icing formation placed 200m before the start location to be monitored. The SR-45 road studs are installed and are active when there is a condition for the possibility of ice formation at the site.

"Possibility of icing formation = (Temperature <3ºC ) & (Humidity>60%)"

Whenever the temperature is above 5ºC, the system turns off the SR-45. These values can be configured by software in the microcontroller.

**SR-45: ROAD STUDS**
Each road stud has 5mm LEDs. It has a maximum power consumption of 80mA when powered at 12 V DC. The total number of road studs are interconnected by electric cable connected to the controller that is placed in the solar station.

**ICE DETECTOR:**
The ice detector consists of two sensors, the humidity sensor and temperature sensor. The temperature and humidity sensors are connected to the controller via the communication cable.

**SOLAR STATION**
The solar station is dimensioned according to each installation, as it can vary the total number of elements as is the case of the number of SR-45 applied at each site. But each solar station is always constituted by N x 12V battery, a charging regulator and a solar panel according to the installed power.