



# SR-IDS

## INTELLIGENT ICE DETECTOR SYSTEM YOUR SAFETY EYES



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## INTELLIGENT ICE DETECTOR SYSTEM

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 <3°C" )" & (Humidity>60%)"

Whenever the temperature is above 5°C, 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.

