

## (9 Volt to 35 Volt AC or DC)

The CarSense 202 is based on the well-known CarSense 101 design. The single piece design provides the installer with a simple installation procedure. The CarSense 202 Slim is buried in the ground so that potential intruders or vandals do not notice it.

The CarSense 202 accepts a wide range of power supplies from 9 Volts to 35 Volts AC or DC. The low current consumption of 1.5 mA in standby and 15 mA activated make it an excellent choice for solar power applications.

3 – Wire Configuration

Blue – N.O. connects to Black on detect

Red - Power +

Black - Power -

The CarSense 202 Slim is available in a three wire or a five wire version.

## **INSTALLATION INSTRUCTIONS**

Wiring information

Connect the Red and Black wires to a power source of 9 - 35 Volts AC/DC.

<u>5 – Wire Configuration</u>

Red – Power

Black – Power

Green – Common

White – Normally Closed

Brown – Normally Open

**Note**: Polarity on 5 wire is not important

In most cases when installing the CarSense 202 five-wire version as in enunciators or free exit applications, the Green and Brown wires are used. In applications that need normally closed contacts as with security systems or magnetic locks the Green and White wires are used.

The CarSense 202 is buried in the ground about 8-10 inches deep and parallel to the driveway. The CarSense 202 may also be placed under asphalt or concrete as long as no rebar is above unit. In any installation the CarSense has to remain totally motionless and free of vibration to prevent false detections.

The detection area is roughly a 15-foot diameter circle; this will change in size depending on size and speed of vehicle moving through detection area.

**Warning:** The CarSense units are susceptible to cell phones, high power radios and electrical RF noise.

Sold by selected distributors only.



# **Application Note 050701**

#### CARSENSE 101 and CARSENSE 202

## **Update Points**

- 1. CarSense is now IMMUNE to cell phone and other RF noise.
- 2. CarSense can be used at high sensitivity applications.
- 3. CarSense is 15% to 30% more sensitive than the competition.
- 4. Important! Test CarSense with a slow moving ferrous metal target.

EMX Industries, Inc. is committed to providing the highest quality and most reliable products to our customers. We appreciate your business and your feedback regarding our products. This notice is to inform you that we have recently introduced a product enhancement in our CarSense 101 and CarSense 202 product lines based on customer feedback.

#### The Problem.

Since magnetic probes used as motion sensors are highly sensitive to small fluctuations in the probe's field, these types of probes have been vulnerable to interference from various RF sources such as cell phones, variable speed drives and vibration.

#### The Solution.

After extensive testing of CarSense probes we have decided to implement a change to virtually eliminate response to spurious noise signals from RF and cell phone interference.

This enhancement eliminates the CarSense probe response to changes in the magnetic field that do not resemble the magnetic signature of a moving vehicle. As a result, field-testing of the CarSense probe may be more difficult then simply quickly waving a tool over it. We recommend a slower, continuous movement from one end to the other in a complete sweep, mimicking the change in the magnetic field produced by a vehicle. The best test is to lay down the CarSense probe on location and drive a vehicle by the probe.

**Important!** This enhancement does not affect the sensitivity, range or response time of CarSense probes. In fact, this improvement allows the sensitivity to be increased without worry of false detection due to spurious RF interference.

#### **Comparison with Competition**

Since we have invested the time and effort to extensively test our CarSense products, we included several of our competitor's products along side of ours in these tests. As a result, we've found that our CarSense probes provide 15% to 30% additional range in comparison to these other products.

Please feel free to contact us at 1-800-426-9912 or <u>salessupport@emxinc.com</u> if you have any questions or comments regarding our products.