

# BRD01 MAG Single Channel Loop Detector



Date: 11 October 2014

## 1.0 Introduction

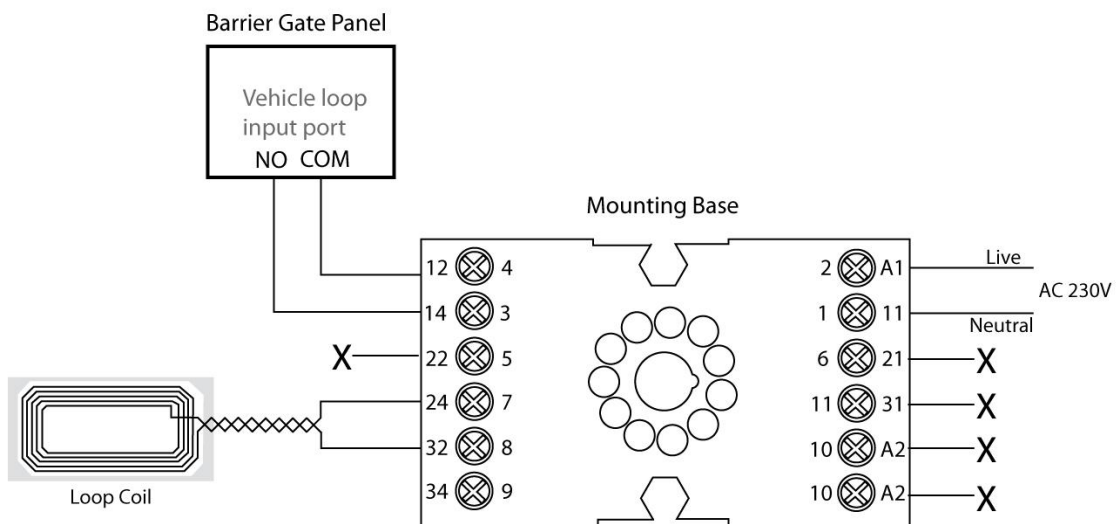
MAG BRD01 is a single channel loop detector. The principle is based on a change in the inductance with the loop which is caused by the metallic component of passing vehicles which are picked up & evaluated by a microprocessor.



## 2.0 Technical Data

|                        |  |
|------------------------|--|
| Supply voltage AC      | 220V   |
| Sensitivity            | Adjustable in 3 increments                                     |
| Operating temperature  | -20°C to +65°C   |
| Reaction time          | 100ms  |
| Frequency range        | 20 kHz to 170 kHz  |
| Loop inductance        | Ideal is 80µH to 300µH   |
| Loop connection        | < 5 m optimal  |
| Loop connection wiring | Maximum length 200 meters, twisted at least 20 times per meter |
| Dimension              | 35 x 74 x 85 mm (W x H x L)                                    |
| Net Weight             | 300g   |

## 3.0 Connection Diagram

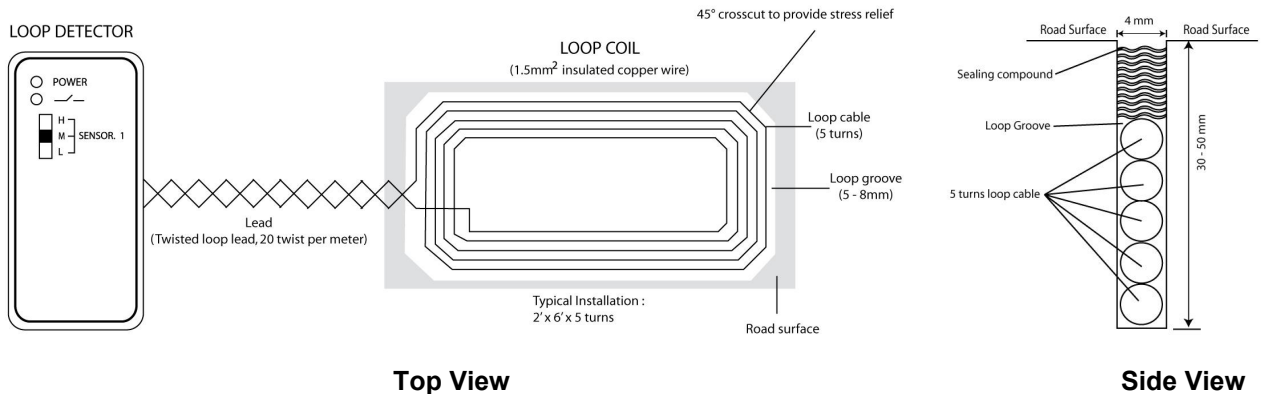


## 4.0 Installation Information

### Loop and feeder specification

The loop must consist of multi-strand insulated copper wire with cross-sectional area equivalent to 0.75mm<sup>2</sup> and above. the insulator of the wire must be able to withstand high temperature and corrosion. do not use single strand copper wire as it will easily break.

When long loop feeders are used or feeders are routed together with other electrical wiring. the used of a screened cable is suggested or the feeder. the screen must be earthed at the detector end only

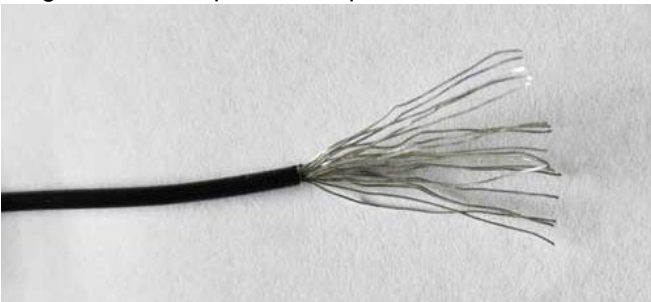


Top View

Side View

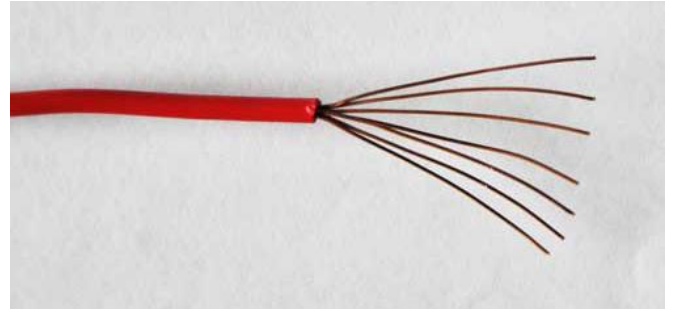
### High temperature loop cable (RECOMMENDED)

Loop cable 0.75 mm<sup>2</sup> stranded wire with Teflon insulator. Recommended cable when hot asphalt is used to fill into loop groove. great resistant against long term hot temperature exposure.

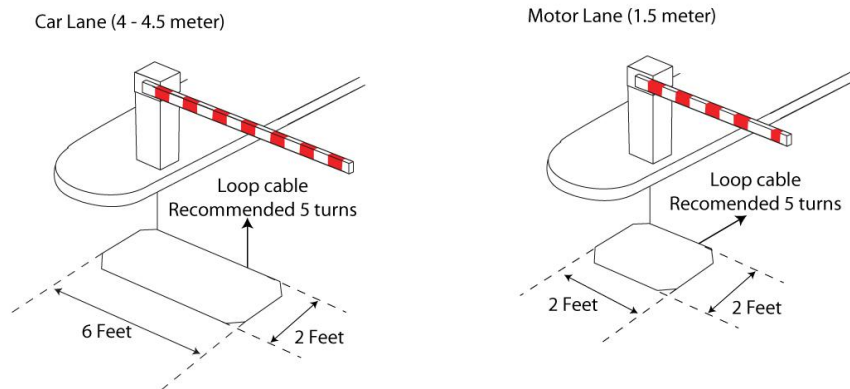


### Standard loop cable

Loop cable 1.5mm<sup>2</sup> or 16awg stranded wire. can only use silicon glue to fill into loop groove to avoid melting the insulator.



### Typical installation diagram



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