Specification sheet

BRD01
MAG Single Channel Loop Detector

Date: 01 January 2011, Revision: V1

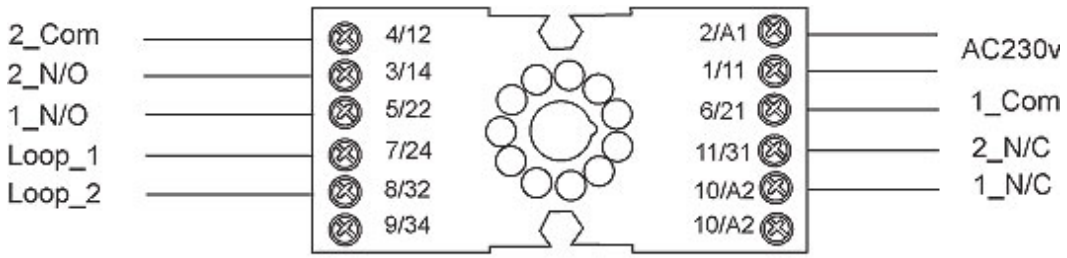
1.0 Introduction

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

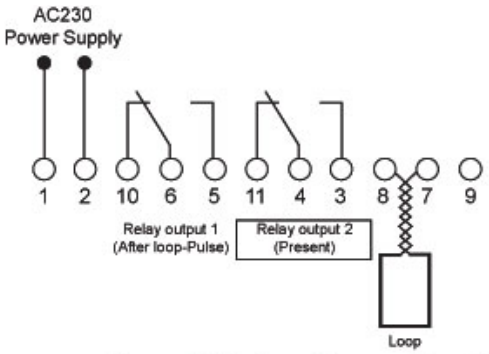
Supply voltage AC	220V
Sensitivity	Adjustable in 3 increments
Operating temperature	-20˚C to +65˚C
Reaction time	100ms
Frequency range	20 kHz to 170 kHz
Loop inductance	Ideal is 80µH to 300µH
Loop connection	< 5 m optimal
Loop connection wiring	Maximum length 200 meters, twisted at least 20 times per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

3.0 Mounting Base

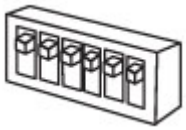


Loop Detector Mounting Base

4.0 Connection Diagram



Loop Detector Connecting Diagram



Dip switch = OFF Position
Red LED = Power on
Green LED = Loop coil Error Indication
Sensitivity = High: Bicycles can be detected
= Medium: for automobiles
= Low: preferable lorries will be detected (ensure that the loops is NOT activated when making these adjustment)

5.0 Installation Information

Loop and feeder specification

The loop must consist of insulated wire with a minimum copper cross-sectional area equivalent to 1.5 mm2. The feeder should be of the same material but twisted a minimum of 20 twists per meter. Joints in the loop or feeder are not recommended. Where this is not possible, joints are to be soldered and terminated in a waterproof joint bow. This is extremely important for reliable detector performance. When long loop feeders are used, or feeders are routed together with other electrical wiring, the use of a screened cable is suggested for the feeder. The screen must be earthed at the detector end only.