AIM - R

Above Ground Roadside Detector

Features:

- Vehicle presence detection
- Replaces Induction Loop Systems
- Simple Installation
- Fast response time
- High reliability
- High immunity to false detects
- High immunity from lock up
- Low installed cost
- 1 or 2 lane operation
- Microprocessor controlled active infrared
- Applications include UTC

This active infrared detector is designed to detect the presence of vehicles within the detection zone.

The unit gives an output when one or more vehicles are present. Environmental tracking and anti-lock up algorithms, coupled with active infrared technology, make the unit operationally robust and reliable, under a wide range of operating conditions.

Typical applications include vehicle counting, queue detection etc.

An LED is provided on the underside of the unit, to give a visual indication of vehicle presence.

The unit is suitable for 1 or 2 lane applications and can be mounted on either side of the carriageway.

Supply Voltage:

24V AC or DC ± 20 % @ < 200 mA
230V AC @ < 30 mA

Output:

Relay (de-energised for detect), contacts rated 1 A 24 V DC, 0.5 A 120 V AC.

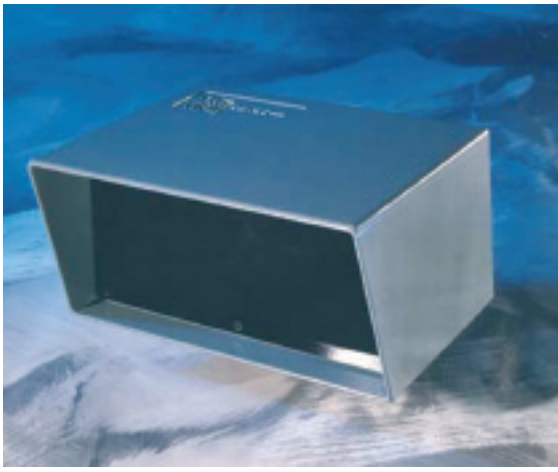
Presence Time:

4 Minutes ± 1 second

Mechanical:

Case Material:

The detector enclosure is a two-part die cast aluminium construction, with a mounting flange provided at the rear. The separate mounting bracket (see accessories) is also manufactured from aluminium to prevent corrosion.



Dimensions:

212 x 110 x 175mm (W x H x D), excluding connections and mounting flange. Flange projects approx. 70 mm from the rear of the unit.

Weights:

2.0kg AIMR24-D (unpacked)
2.25kg AIMR230-D (unpacked)
0.3kg MIAB1 (unpacked)

Connrctions:

Connection to the unit is by means of chassis mounted Bulgin Buccaneer connectors. The 24V version has a single 9-way male connector and the 230V version supports 2 connectors, as shown overleaf. Each unit is supplied with a female connector suitable for connecting to multi-core cables between 7 and 8mm overall diameter. Individual cores are terminated in crimp terminals.

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Alternatively, separate cores may be connected with a short length of a suitable flexible conduit pushed over the connector body. Pin allocation is shown in the table below.

Table 1 – Connector Pin Allocation:

Pin	Functions for 24V Connector type	Functions for 230V connector type
1	Supply + ve	} Power on separate
2	Supply – ve	} connectors – see
3	Chassis Earth	} table 2 below
4	Relay 1 Common	Relay 1 Common
5	Relay 1 NC	Relay 1 NC
6	Relay 1 NO	Relay 1 NO
7	} Not used	} Not used
8	} Not used	} Not used
9	Enable 2 Lane*	Enable 2 Lane

*Connect Pin 9 to Pin 1 to enable.
Mating connector type P727P.

Table 2 – Power Cable Pin Allocation:

Pin	Power Cable for 230V
1	Live
2	Neutral
3	Earth

Installation Instruction:
The unit is mounted on a pole, at a height of 4m from the mounting flange hole to the ground. The unit should point perpendicular to the kerb. Suitable for left or right handed mounting.

Vertical alignment of the unit is achieved by ensuring the top surface of the sensor housing is at the required angle to the horizontal (see figure 1).

Figure 1a - Side View of Detection Zone

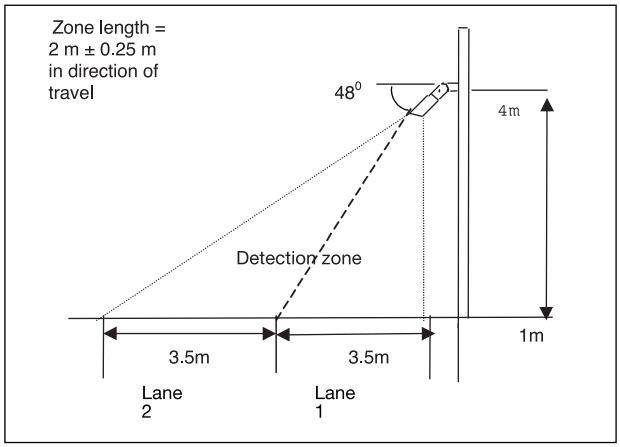
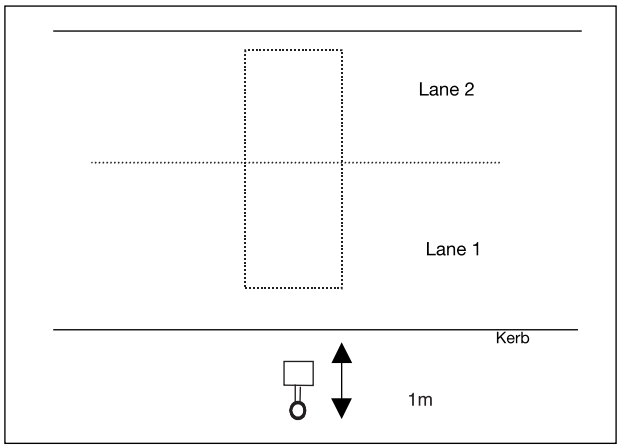


Figure 1b - Plan View of Detection Zone



Ordering Information:
Order as: AIMR24-D
AIMR230-D

Accessories:
Order as MIA-B1 right-angled mounting bracket.

Please contact the Sales Department for further details or with enquiries about our product range.