



Heimdall: Above-ground radar detection

[Product Datasheet](#)

Overview

Heimdall above-ground detectors offer a complete range of detection solutions for use in a variety of traffic and pedestrian control applications.

Using advanced radar technology, these detectors offer high performance, simple installation and low ongoing maintenance while their small size ensures that unnecessary street clutter is minimised.

Advanced technology

Incorporating sophisticated technology, each Heimdall detector contains a planar radar antenna system and an innovative digital signal processing engine to facilitate a high performance and accurate detection solution. Patented features enable Heimdall to offer a wide range of detection solutions including:

- Standard VA (dual-lane)
- Single Lane VA
- Stop line
- Selectable speed activation
- SCOOT / MOVA
- Pedestrian on-crossing
- Pedestrian kerbside (standard & volumetric)

Simple installation

Heimdall detectors are supplied preconfigured with standard settings, which are suitable for the majority of installations. Simple configuration switch settings are available if required for on-site customisation, eliminating the need to use expensive and vulnerable PC configuration tools. A PC is only necessary when detailed fault log information or access to advanced settings is required.

Heimdall detectors can also be supplied with Bluetooth® functionality, if necessary, allowing configuration to be carried out from ground level.

PC access is achieved using a simple terminal program, alleviating the need for proprietary or bespoke software.

High performance

Unlike typical vision and video-based solutions, Heimdall's radar technology works equally well in bright and dark locations; it does not suffer from false detections that are a common result of lighting variation and shadows. Fog and rain also go largely unnoticed ensuring the best possible performance on the road network, regardless of the conditions.

Reduced maintenance

Ongoing maintenance costs can often be a concern, particularly with camera-based detection systems, where frequent lens cleaning is required to maintain performance. Heimdall's advanced radar-based technology means such maintenance is not required, providing considerable whole life cost savings.

Technical Specification

For all variants

Supply Voltage	24V AC \pm 20% (48Hz to 63Hz) 24V DC \pm 20%
Typical Supply Current	<ul style="list-style-type: none"> • 143mA (AC) • 113mA (DC) • 186mA (AC) – with wireless or serial data options • 147mA (DC) – with wireless or serial data option
Operating Frequencies	24.05GHz to 24.25GHz 13.4GHz to 14.0GHz (Kerbside / On-Crossing)
Operating Temperature	-40°C to 75°C
Dimensions	150mm x 135mm x 90mm
Weight	0.6kg
Environmental Rating	IP56
Standard Connection	Defined Bulgin Buccaneer connector and pin-out or internal screw connector for connection of customer defined termination
Approvals	<ul style="list-style-type: none"> • TOPAS specifications as appropriate for the detector type • EMC: EN 50293 • Radio Approval: EN 300 440 • Vibration: EN 60068-2-64 • Safety: EN 60950

Standard VA (dual lane)

Operating Range	At least 10m to 35m from the Stop Line – typically up to 70m for a saloon car
Lane Width	Typically 7m
Vehicle Approach Speed	8 km/hr (5 mph) to greater than 112 km/hr (70 mph)
Detection Direction	Configurable to oncoming, leaving, or bi-direction
Detector Mounting Height	3.3m – 4m
Detector Mounting Location	On the 'nearside' primary signal pole or the 'off side' primary signal pole

Single Lane VA

Operating Range	At least 10m to 35m from the Stop Line – typically up to 70m for a saloon car
Lane Width	Typically 3.5m
Vehicle Approach Speed	8 km/hr (5 mph) to greater than 112 km/hr (70 mph)
Detection Direction	Configurable to oncoming, leaving, or bi-direction
Detector Mounting Height	3.3m – 4m
Detector Mounting Location	On the 'nearside' primary signal pole or the 'off side' primary signal pole

Technical Specification

Stop Line

Operating Range	Approximately 3m from the Stop Line
Lane Width	Typically 3.5m
Vehicle Approach Speed	0 km/hr (0 mph) to greater than 112 km/hr (70 mph)
Detection Presence Time	1 to 30 minutes (configurable by DIP switch settings and terminal)
Detector Mounting Height	3.3m – 4m
Detector Mounting Location	On the 'nearside' primary signal pole or the 'off side' primary signal pole

Selectable Speed Activation

Operating Range	At least 10m to 35m from the Stop Line – typically up to 70m for a saloon car
Lane Width	Typically 7m
Vehicle Approach Speed	8 km/hr (5 mph) to greater than 112 km/hr (70 mph)
Speed Threshold Settings	8 km/hr (5 mph) to greater than 112 km/hr (70 mph) by simple DIP switch settings – can be configured from 8km/hr to 150 km/hr (93 mph) in 1km/hr increments via the terminal facility
Detector Mounting Height	3.3m – 4m
Detector Mounting Location	On the 'nearside' primary signal pole or the 'off side' primary signal pole

SCOOT / MOVA

Operating Range	Single lane adjacent to mounting pole
Equivalent Loop Size	<ul style="list-style-type: none">• 1.8m (installation height 4m)• 2.3m (installation height 6m)• 2.7m (installation height 8m)
Vehicle Approach Speed	0 km/hr (0 mph) to greater than 112 km/hr (70 mph)
Detection Presence Time	1 to 30 minutes (configurable by DIP switch settings and terminal)
Detector Mounting Height	3.3m – 8m
Detector Mounting Location	Positioned 'side-fire' across the monitored lane

On-Crossing

Operating Range	Up to 12m
Crossing Width	Typically up to 4m (when used as a pair)
Pedestrian Minimum Threshold Speed	<0.5 m/s
Detector Mounting Height	3m – 4.5m
Detector Mounting Location	Either side of crossing

Technical Specification

Kerbside (Standard & Volumetric)

Operating Range	Covers wait areas with a crossing width (zone length) up to 4m
Wait Area Width	Typically 1.6m (2.4m close to pedestrian demand unit)
Wait Area Length	Approximately 2.5m (extended to 4.5m by setting)
Detector Mounting Height	3.3m – 4m
Detector Mounting Location	On pole with associated pedestrian demand unit

Elexon Code

Description	Part Number	Charge Code	Nominal Watts
Heimdall Above Ground Detectors	667/1/31900/ETC	79 07 003 001 100	3

For complete information on Elexon codes please refer to Yunex document 667/RE/29050/000

