Product Specification

Pedestrian and

Bicycle Counter

The Clearview Pedestrian and Bicycle Counter is an accurate real-time count and classifier for active travel detection and analysis. It utilises the latest LIDAR technologies to provide a non-invasive detection and classification solution for pedestrians and bicycles.

Designed for permanent use alongside foot and cycle paths as a solar or mains powered solution within a single unit. The detection range is configurable up to 7 metres without the need for an additional receiver unit as seen in traditional solutions of this type.

The use of LIDAR technology enables the creation of virtual lanes based on the distance of the object detected, this can be used to understand if potential conflicts are occurring on segregated pedestrian and cycle paths.

An optional 4G or ethernet communications module provides the ability to deliver real-time or scheduled data to Clearview's Insight® Data Management platform or to any other system using open standards data formats and protocols.

The integrated contact closure and logic controller means the unit can be used for active travel safety schemes and data collection all in a single solution.

Key Benefits

- Real-time communications provide instant data on pedestrian and bicycle users to understand the potential impact on services and infrastructure.

- Sustainable solar powered classifier with integrated communications provides the ideal off-grid solution enabling deployment in rural areas and reducing the costs of provisioning power.

- Automated data retrieval, monitoring and reporting through Insight provides an easy to use platform for maintenance and analysis.

- Integrated general-purpose input and output enables the solution to be used to trigger external systems such as Vehicle Activated Signs for safety schemes.

- Non-invasive detection reduces installation costs compared to loop/piezo solutions and removes the risk of damage caused by pavement repairs and works by services.

Key Features

- 95% pedestrian and bicycle classification with direction
- 98% pedestrian and bicycle detection with direction
- Integrated real-time communications
- Integrated general-purpose input/output
- Solar, power over ethernet or mains powered
- Data Integration with Insight but data also available to third parties
- Detection up to 7m from the counter
- Virtual lanes to detect adherence to pedestrian and cycle lane designation

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Designed for Integration

Designed for more than just counting pedestrians and cyclists the counter includes an integrated general-purpose input and output (GPIO) connector providing 4 out and 4 in ports for the activation of external devices with contact closure such as Vehicle Activated Signs (VAS) or barriers.

The GPIO is combined with a programmable logic controller (PLC) that enables rules to be created that can be used to apply specific logic to activations based on the scheme's unique requirements providing a core platform for pedestrian and cycle safety schemes.

Data can be delivered in real-time or scheduled via an optional 4G modem or ethernet (POE) connection. The ability to download data via USB is also provided.

The Pedestrian and Bicycle counter is available as a solar, mains or power over ethernet unit enclosed within a cabinet to enable deployment and integration in a variety of environments and schemes. The solar panels are deployed separately to enable freedom to position the classifier where appropriate and maintain good solar capability.

Insight Monitoring and Reporting

The solution includes 12 months access to our Insight® Data Management platform which will automatically receive and process the data from the unit as well as provide status monitoring for the counter and VAS if included as part of the solution.

Insight provides a set of reporting tools to enable any user to quickly analyse the data and gather intelligence utilising visual aids such as charts and heatmaps. Specific times can be monitored, such as 8am or 5pm, to show peak time data. Reports can be exported to Excel and include charts, formulas and conditional formatting.
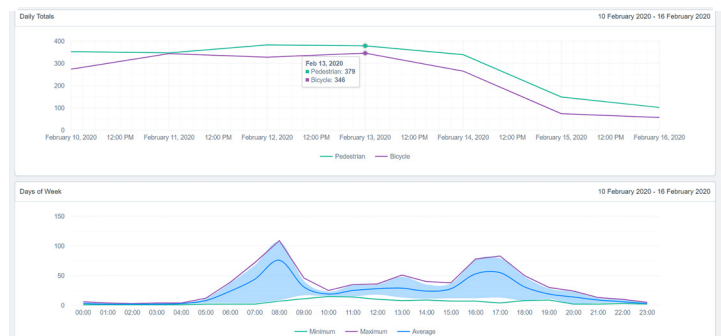
Insight also provides the ability to automatically schedule report creation and distribution as well as providing a modern REST API for integration of data into 3rd party systems.

Specification

Cabinet
Installed Dimensions: H:98.9cm x W:20.4cm x D:15.7cm
Root Dimensions: H:34.6cm x W 24.4cm x D 15.7cm

Power Options
Solar: Average 1.2 watts at 12v
Mains:110V-230V AC 5-060 Hz
Power over Ethernet: 2 watts

Battery
Mains and POE: 1 x internal Li-Ion 7.4v 2600mAh
Solar: 12V 17Ah Lead Acid battery (-20C to +60C)

Input/Output
USB: Configuration and manual data download
GPIO: 4 in and 4 out

Options
Ethernet (PoE)
4G Modem

Data Type
Individual record in JSON format

Data Output Fields
Timestamp, Direction, Class, Distance, Lane, Speed

Communications Protocol
MQTT

Security
TLS 1.3, SHR256, X50

Operating Temp Range
-20°C to 70°C (-4°F to 158°F) - Internal Li-Ion battery

Communication Ports

Service	Protocol	Port	Traffic Direction
IPv4 DHCP	UDP	68	Outbound
IPv4 DHCP	UDP	67	Inbound
DNS	UDP	53	Outbound
NTP	UDP	123	Outbound
MQTT over SSL	TCP	8883	Outbound
HTTP	TCP	80	Outbound
HTTPS	TCP	443	Outbound

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