

Product Specification

Insight

Count Station



The Insight Count Station (ICS) is part of Clearview Intelligence's Insight Parking solution comprised of the Insight Parking application, vehicle counters, parking bay sensors and variable messaging signs (VMS) to provide a complete and scalable solution to optimise parking.



The ICS is a compact, real-time vehicle counter that utilises our latest inductive loop technology to provide accurate vehicle counts at the entrance and exits to Car Parks. This system is also used to create parking zones within a Car Park providing greater detail to customers via VMS.

The combination of ICS and Insight Parking ensures an accurate count of vehicle movements even when users may not adhere to the prescribed routes into and through a Car Park by using dual-loops, straddling algorithms and Insight Parking's virtual lane system.

The ICS is particularly suited to applications where the flow of traffic is frequent and the real-time nature of data is critical to ensure that information systems are always up to date. To ensure a reliable flow of data the ICS comes as standard with an RJ45 Ethernet connection providing IP communications and system monitoring.

Key Benefits

- Real-time vehicle movements provide up to date information to users on parking space availability.
- Reduced infrastructure costs through PoE connections removes the need for separate power and communications wiring.
- Dedicated security hardware ensures real-time data delivery without compromising security
- Integrated solution ensures compatibility and ease of use for operators
- 7 day battery backup ensures occupancy information is automatically recovered after a power failure.

Key Features

- Real-time loop based vehicle counter
- Compact design
- IP Communications via RJ45 Ethernet
- Mains and PoE enabled
- Provides Count, Direction and Lane
- On-board security (TLS 1.3)
- 16 inductive loop ports
- Fault and status updates
- Integrated into the Insight Parking application
- Low power consumption
- Internal battery backup (7 Days)
- SD card for data backup

Communication

An RJ45 Power over Ethernet (PoE) port enables the ICS to carry both data and power over a single cable reducing deployment and infrastructure costs. Without the requirement to have AC power sockets the ICS can be deployed at the most optimal locations. The ICS is a low power unit requiring only 2 watts over PoE to operate and can operate with both PoE switches and injectors.

PoE also enables the ICS to be deployed internationally without the concern of differing AC power standards in different countries. The availability of IP communications over Ethernet means the ICS can use the local area network (LAN), WiFi (requires external dongle) or 3G/4G routers.

System

In the event of power failure, the ICS will disable the Ethernet communications to reduce power consumption and ensure data collection and storage will continue for up to 7 days using SD card storage and the internal battery.

The ICS is managed and configured via the Insight Parking Application providing a modern web browser interface for ease of configuration. Multiple user levels enable only those with the appropriate rights to access and modify configuration data. Configuration changes are recorded for backup and auditing purposes.

Security

The ICS includes a dedicated on-board cryptography chip utilising Transport Layer Security 1.3 to prevent eavesdropping, tampering, and message forgery over the internet. Cryptography can be processor intensive and the utilisation of a dedicated circuit ensures the encryption/decryption process does not impact data delivery.

Insight Parking

Insight Parking builds on the Insight Data Management platform by providing a dedicated application for the management, monitoring and reporting of parking assets. Developed to meet the needs of operators in all sectors with a suite of tools designed to maximise workflows and usability.

Real-time dashboards update instantly on receipt of data from sensors and signs ensuring that the information presented is always up to date enabling informed decisions to be made.

A modular approach ensures operators can scale the solution as required by adding to the core occupancy and reporting tools. Additional modules are available for bay sensors, Variable Messaging Signs (VMS) and Application Program Interfaces (APIs).

Designed to handle different operational roles across a multitude of locations, access to key functions and visibility of assets is controlled through a powerful permissions and roles module.

Insight Parking provides full support for the Insight Count Station with configuration and status information built into the application. Data is streamed from the ICS into the application where it is consolidated into occupancy information for dashboards, VMS, reports and APIs.



Specifications

DIMENSIONS

170mm x 120mm x 40mm

POWER OPTIONS

Mains: 110V-230V AC 5-060 Hz

Power over Ethernet: 2 watts

BATTERY OPERATION

Internal: Li-Ion 7.4v 2600mAh (1 week of operation)

External: Lead Acid or 7.4v Li-Ion (Factory Option)

DATA OUTPUTS

Count, Direction and Lane

LED DISPLAY (A/B)

A: Green Solid – Power On and connected to Insight

A: Green Flashing – Power on but no connection

A: Green Low Pulse – Internal battery no connection

B: Red - Fault

OPERATING TEMPERATURE RANGE

-20°C to 70°C (-4°F to 158°F)

INPUTS

16 loop sensors

Universal Serial Bus

GENERAL INPUT OUTPUT

4 Inputs/4 Outputs (Future/Bespoke development)

DATA TYPE

Vehicle by Vehicle

SECURITY

TLS 1.3, SHR256, X509