Clearview Intelligence
making journeys work

Product Specification

M720 Vehicle Count and Classifier

Clearview Intelligence's technology is at the heart of many Intelligent Transportation Systems (ITS) for urban motorways or roads where accurate, reliable and economical detection systems are required.

ITS Detection systems

The Clearview Intelligence M720 is a fully integrated vehicle count and classification device optimised for 'fit and forget' detection, providing highly reliable and accurate data processing incorporating fast and reliable Ethernet communications. Housed in an industry standard 19" rack mount enclosure the unit is just 2U high (just over 90mm) enabling the unit to perform well in dense configurations at the roadside. When integrated with the Insight instation it provides a highly reliable and automated solution to today's sophisticated ITS projects.

Loop detector

The M720 supports 16 loops for detection and reports individual vehicle parameters including class, count, length, speed, gap, lane, headway and direction ensuring traffic planners and road operators have the most detailed and accurate records to hand for their statistical and long term analysis.

Piezo Sensor

A 16 port piezo sensor option is also available offering full axle detection using Mk1, Mk2 and Mk3 sensors providing accurate, robust and reliable detection and classification. The M720 includes 15 axle based classification schemes ensuring quick deployment and operation. Combined with the loop detector the M720 can provide up to 8 lanes of loop and piezo configurations.

Key Benefits

- Superior vehicle data capture accuracy and reliability
- Ethernet communications guarantees real-time connectivity for business critical applications
- Savings on time and costs of installation as slots into standard rack mount roadside cabinets
- Cost effective management through remote management and data collection
- Insight connectivity drives simple, robust decision making
- Internal battery ensures data collection continues up to 5 days in the event of power failure.

Key Features

- Inductive loop based count/classifier designed to fit in a standard 19" rack
- A comprehensive range of configuration, connectivity and additional interface options
- Simultaneous production of real time and historic information
- Accurate vehicle algorithms to cater for vehicles straddling lanes
- User friendly configuration and management application
- Ethernet port for high speed communications, with GSM and GPRS communication options for remote data collection
- Mains powered
- Seamless integration with Insight data intelligence platform
- Wide range of report formats through the Insight software including Binned and VBV surveys

Secure and reliable - No data loss

Data security and reliability is a key demand from operators collecting data from sophisticated ITS projects. The M720 includes facilities to provide a high level of user and system authentication and security checks to ensure that data cannot be tampered with nor corrupted, as the data is being processed in the outstation or transmitted back to base at the instation. The protocol is machine to machine and allows advanced automatic error correcting to be performed if communication links prove unstable.

NTP time server support ensures that the data is time stamped to a very high degree of accuracy and more importantly that the time synchronisation integrity between outstations on the same network can be easily and accurately maintained.

The M720 is equipped with an integral battery enabling it to continue recording data if external power fails. The unit alerts you to the fault before shutting down communications to conserve power. Non-volatile SD card storage ensures that your data is preserved for later retrieval even if the reserve battery becomes depleted. The integral battery will even maintain the device recording operation for 5 days after power failure, having usefully sent a message to the instation alerting you to the power fault before shutting down communications.

Communications

The M720 provides Ethernet based TCP/IP communications as standard allowing robust, reliable and fast communication of data and configuration to and from the unit. This ensures that operators can retrieve the vast amounts of data now available quickly and reliably. An internal GPRS/GSM modem and serial card are also available as options.

Construction and general features

The sensor loops connect with simple and easy to wire plug connectors (supplied) which connect at the rear of the chassis. The ethernet connector also fits at the rear, alongside the AC mains connection. At the front, a familiar DB9 RS232 connection is provided for local access. A set of LEDs indicate the status of communications to the instation, event and vehicle generation.

The entire unit only consumes approximately 2 watts and generates very little waste heat, therefore reducing A/C requirements. As with all Clearview equipment, the devices meet and are certified for all the appropriate standards.

The M720 series includes advanced health monitoring features that allow the operation and performance of the equipment to be monitored in real time. The Insight instation is automatically alerted to sensor and power faults. When connected to the instation the M720 provides data on the health and performance of the sensors and the equipment, which can be used to determine emerging failures or anomalies in operation and assist operators with planned maintenance visits.

Specifications

DIMENSIONS
19 inch rack mounted 2U height
260mm x 480mm x 90mm

OPERATING TEMPERATURE RANGE
-15°C to +70°C (5°F to +158°F)

POWER
Mains 110V - 230V AC 50Hz

ELECTROMAGNETIC COMPATIBILITY
Tested to EN50293

BATTERY OPERATION
Depending upon application, up to 5 days battery operation via integral lead acid battery

INPUTS
16 loop sensors, user-programmable dimensions,
16 Piezo Sensor (optional)

DATA OUTPUTS
Count, class, direction, gap, speed, length, axle count, axle separation and headway

DATA STYLES
Interval, Vehicle-By-Vehicle, Individual Vehicle Data, Traffic Data

SENSOR CONFIGURATIONS
Loop
Loop - Loop
Piezo
Piezo - Piezo
Loop - Piezo - Loop - Piezo
Loop - Piezo - Loop
Piezo - Loop - Piezo

MACHINE INTERFACE
Ethernet
RS232 up to 115,200 baud

SOFTWARE
Remotely upgradeable and reconfigurable

STANDARD FEATURES
HPLD loop sensor for enhanced accuracy and/or 200m feeders
Signature profiling for vehicle type classification

OPTIONS and ACCESSORIES
Central instation software for data retrieval and control
Windows based graphical configuration interface
GPRS/GSM Modem, Serial Card, 16 Sensor Piezo Card