



**NORTECH**  
TRAFFIC



## IR200 INTELLIGENT VEHICLE LOOP DETECTOR

With the Nortech Traffic TD664 inside, the IR200 Intelligent Vehicle Loop Detector is a reliable and accurate vehicle detection system with low maintenance costs. The IR200 collects, stores and reports on multi-lane traffic data comprising of individual vehicle data events or average flow data relating to traffic volume, speed, length category, vehicle headway and percentage occupancy. It can monitor 32 loops (16 lanes) at vehicle speeds up to 200km/h. An external host computer is able to access information by interrogating the processor via the various communications options available on the front panel. Remote access via our easy-to-use web browser interface allows rapid configuration, real-time incident detection, real-time viewing of traffic and host communication data, extensive fault diagnostics and logs.

### APPLICATIONS

- Incident Monitoring
- Vehicle Classification
- Statistical Flow Analysis
- Tunnel Monitoring
- Vehicle Data Recording

### SPECIFIC FEATURES

#### **Advanced Detectors**

The IR200 uses the already proven TD664 detector incorporating Automatic Frequency Selection (AFS). The AFS circuitry on each 4 channel card evaluates 21 possible frequency shift selections and automatically chooses the best frequency setting on start-up. Using the diagnostic capabilities available via the web browser interface it is possible to interrogate and configure all detector parameters

## Comprehensive Logging

The IR200 logs every event that occurs and classifies it as a vehicle event, communications event, fault, alarm, debug, info or critical issue. This data is available on a real time Live View via the web interface. It is also written to file and can be stored in onboard Flash memory, to an external USB drive, or automatically uploaded to an FTP server.

## Traffic Data Options

Traffic data comprises average data calculated over pre-determined intervals and includes vehicle count, speed, volume, headway and occupancy. Optionally individual vehicle reporting can be selected which provides a record of every vehicle showing its lane number, speed, length and headway. Loops can be configured as stand-alone loops or paired into lanes to suit the application and required data.

## Ethernet Connectivity

The IR200 has an Ethernet port for remote and on-site interrogation via an authenticated web browser interface, as well as for upstream communications to a host processor via the existing IR100 data protocols. The web browser interface allows equipment interrogation, verification and setup of all operating parameters, real-time monitoring of traffic data and communications, and viewing and downloading of traffic data and logs.

## Data Interfaces

Serial and Ethernet communications protocol interfaces are available for communication with a host controller.

# TECHNICAL DATA

## Power Requirements

90-260VAC input  
Intelligent PSU monitoring with open collector outputs and visual indicators for:

- Mains failure
- Battery low
- Charger fail

## Battery Backup

Built in 12V lead acid battery charger and backup system, with seamless automatic changeover for uninterrupted supply of data.

## Mechanical

19" 3U high aluminium rack with mounting ears.

## Connectors and interfaces

### DB25 on faceplate

- Auxiliary 12V @ 400mA output
- RS232 Connection to host

### Ethernet Port

- Web and Host Controller Connection USB

- Mass storage device

#### **9 Way Aux Connector**

- Auxiliary 12V @ 400mA output
- Auxiliary PSU output (18V)
- 1x General Purpose Output

#### **Loops**

- 8 way pluggable with lightning protection

### **Processor**

Powerful ARM9 Processor running embedded linux. Visual indicators for Application running and Heartbeat. User buttons for reset and to stop application running for debug purposes.

### **Detectors**

Up to 8x TD664 detectors, supporting up to 32 loops (16 lanes). All detector features and configuration can be accessed straight from the web interface.

### **Algorithms**

TimeTag, Averaged Data and HIOCC available as standard. Custom features available on request.

### **Data logging**

Live log view, onboard Flash storage, external USB storage and support for FTPupload.

### **Measured parameters**

Vehicle count, speed, length, headway, occupancy, HIOCC algorithm alarms.

### **Communication Interfaces**

Supports Serial or Ethernet link to an upstream host processor.

### **Device Configuration**

Via serial commands or authenticated web interface.

### **Remote updates**

Supports updates in the field via encrypted update files. Features can be modified or added simply through the web interface with almost zero down-time.

## **ORDERING INFORMATION**

**Contact** [info@nortech-traffic.co.za](mailto:info@nortech-traffic.co.za) for the correct algorithm and hardware for your specific application.