



Traffic Management via IR100 Intelligent Vehicle Loop Detector Unit

The Intelligent Vehicle Loop Detector Unit is targeted at ITS roadside applications. The IR100 has a robust core, designed to be flexible and adaptable to meet the toughest applications. The IVLD unit is housed in either a full or half 19" 3U High Eurocard Rack. The rack contains a compact universal power supply delivering all the power requirements to the rack with an added battery terminal input to keep the system functional during power interruption.



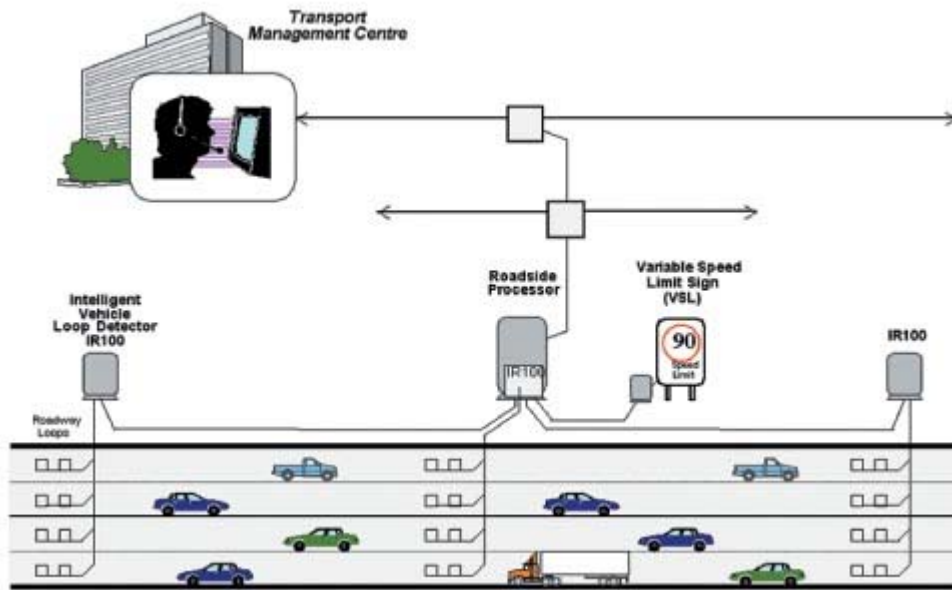
Reliable and accurate real-time incident detection is optimised by this flexible roadside detection module. Flexibility and incorporated communications allow for a myriad of applications making this the ideal detection solution for ITS installations worldwide.

The IR100 has facility to monitor 24 inductive loop inputs. This allows for 12 lanes of traffic to be monitored from a single installation.

APPLICATIONS

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

Using IR100 in Incident Management



IR 100 - Technical Data

Serial Communication Controller:

Eurocard design using the 80C52 CPU with industrial temperature rating. Onboard memory for data storage and Eprom based application. 4 channel TTL input for monitoring purposes. The external serial channel is a high speed communication port with RS232 and RS485 output up to 115200 Baud. The card has a bit address for multi-drop applications.

Power Supply :

Multiple output power supply to Eurocard specification using state of the art switch mode regulation techniques.

Input Shutdown:

Mains:

140V AC with open collector signal. The battery monitor will issue open collector signal on charging failure and battery voltage low(10.8V)

Battery Charging :

Facility to charge a 12 Volt lead-acid battery at 600mA for use in the event of a power failure.

Outputs:

+24V DC @ 800mA
+12V DC @ 400mA

Loop Detectors :

Up to six four-channel traffic detectors conforming to UK DoT Specification for use in motorway application

Surge Protection :

Inductive Loop Detector - Gas Discharge Tubes, loop isolation transformer and Zener-diode clamping on loop inputs.

Eurocard Power Supply - Metal Oxide varistor protection and fuse on mains supply input with

	filter choke.
Operating Temperature :	-20°C to +50°C
Humidity:	Up to 95% relative humidity without condensation
Card Size :	Standard Eurocard Format 160mm x 100mm
Faceplate Sizes :	25mm wide faceplate on inductive loop detectors 25mm wide faceplate on serial communication controller 61mm wide faceplate on Universal Switch Mode Power Supply 188mm wide faceplate on interface panel
Power Requirements:	Input supply requirements to the IR100 230V AC @ 0.45 Amps Battery backup supply requirements for the IR100 12V DC @ 100 Watts