



XL-SPD01 Non-Intrusive Speed Vehicle Counter



The XL-Data Logger is a self contained standalone package which has provisions for connection to a 12 volt DC source, external RADAR speed detector and incorporates a solid state compact flash card carrier to enable non-volatile data capture and storage. The compact flash memory modules are easily exchanged on site and accessed on any PC through a low cost external media reader. During normal operation a visible LED illuminates when data has been captured and successfully written to the compact flash card.

The recommended radar speed detector is the Decatur Electronics SI-2D radar device or XL-SRD. These devices output serial message packets in IEEE RS232 signal form in a user configurable format. The serial port is configured for 9600 baud N81 (no parity, 8 bits per character, and 1 stop bit). The data is in ASCII text form and a message packet is typically “#90#” which is a speed detection of 90 Km per hour. The ‘#’ characters are used as delimiters surrounding the actual speed.



The data is date and time stamped in the XL-SPD01 circuit module and stored as a single event vehicle speed transaction on a solid state compact flash disk. The data is stored in a generic readable text form where each data element is comma separated. This data format is referred to as “.CSV” format.

A typical data record is displayed as; date, time, speed, CR, LF

- Date: 14-06-2005
- Time: 7:54:45
- Speed: 55
- CR: Carriage return
- LF: Line Feed

that is, 14-06-2005, 7:54:45,55,CR,LF

The data may be retrieved through a memory card reader connected to the USB port of a PC or PC compatible style computer. The compact flash disk module must be formatted in a PC computer. The data may be ‘read’ into Microsoft Excel and displayed, edited and tabulated. The data may then be exported in a variety of forms compatible with other computer programs.



Applications

- Non-intrusive road based vehicle speed detection and recording
- Non-intrusive road based vehicle counting and recording
- Speed activated hazard displays
- Speed activated driver advisory displays
- Unattended vehicle speed and count recording

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XL-SPD-01 – Technical Specification Overview

Radar speed detector

- Speed selection KMH or MPH
- Sensitivity range 1-16
- Reading interval 1-10 times per second
- Cosine correction angles 1 or 2

Compact flash specification

- 64 megabyte equivalent capacity 50,000 vehicle records per day for 400 days
- Operational temperature - 10°C to +65°C

Unattended secure enclosure specification and dimensions

- Moulded heavy duty polycarbonate – IP65 rating
- Rubber gasket seal and captive stainless steel screws
- Low profile LED display associated with data storage activity
- Intended for extended unsupervised periods of operation
- Temperature range -20°C to 70°C
- Height 160 mm
- Depth 90 mm
- Width 160 mm

Standard enclosure specification and dimensions

- Moulded polycarbonate IP65
- Rubber seal
- External access for compact flash insertion and removal
- External LED for operation confirmation
- Height 180 mm
- Depth 60 mm
- Width 120 mm

Optional equipment

- Tripod stand for portable use
- Unattended secure case
- Pole fixtures and fittings for unattended use
- Additional hi-capacity GELCEL battery
- Solar panel and charger kit
- Compact flash external media reader for PC
- Additional compact flash disks