



## M680 Loop Classifier

Precise, reliable and ergonomic with impressive download rates and rapid response times

The Marksman 680 range of 4/8/16 Loop Vehicle Classifiers are part of proven Golden River's ITS systems range. With a number of options available they can be configured by the systems integrator or the user for most traffic monitoring applications using inductive loops.

The Marksman 680 range offers as standard the monitoring of 4 lanes of traffic covering a dual carriageway trunk road or one direction of a motorway. The M680 can also be supplied configured to cover over 8 lanes of traffic.

As part of the configuration, 8 accurate and reliable detectors form part of the system. Rapidly scanning each loop sensor, the M680 can report vehicle counts, speed, lengths and gap/headway in each lane.

In the past, applications have depended on binned data being collected weekly or monthly for historic purposes. With current demands for making the most out of the existing road infrastructure, the M680 can collect data on each vehicle compiling minute-by-minute interval files for transfer by packet based communications systems.

Because the loop detectors are integrated and under the control of a single processor, advanced algorithms are available to spot straddling vehicles and minimise data inaccuracy due to congested conditions.

In the past, 'N+1' configurations have been necessary to attain similar levels of performance. Whilst the M680 range can accommodate legacy 'N+1' sites, it will give excellent results with 'N' arrays, reducing installation and maintenance costs.

Like all Golden River products, the M680 range benefits from over 30 years of experience with roadside systems operating in most harsh conditions. Our systems last for many years due to their rugged construction and the use of plastic and stainless steel throughout. Over 20,000 Marksman traffic recorders are located around the world, operating to extremely high levels in all traffic conditions.

Most Marksman ITS system components are installed with telemetry for control and data retrieval and our equipment design reflects this. The MCentre web-based data management system complements the M680 range perfectly and allows automated retrieval for historic data.

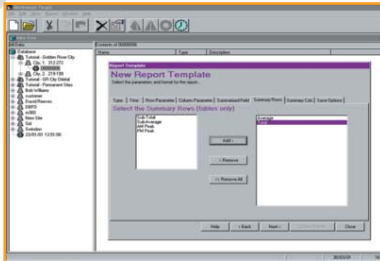


### KEY BENEFITS

- Proven reliability and accuracy delivers dependable traffic data
- Reduced installation and lifetime costs through the use of solar power
- Cost effective management through remote management and data collection methods
- Wide range of report formats including Binned and Vehicle By Vehicle surveys
- Safe and convenient roadside data collection via Bluetooth connectivity

### KEY FEATURES

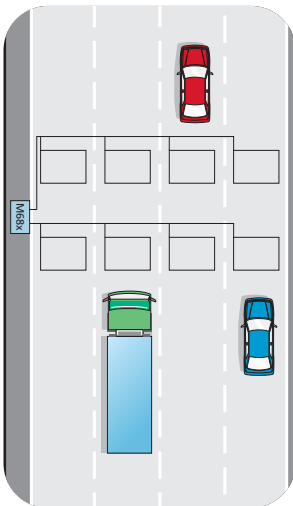
- ITS systems component
- Second to none accuracy
- User programmable
- Unsurpassed flexibility
- Rugged and reliable
- IP67 sealed, wide temperature range
- Lane-by-lane configurable (option)



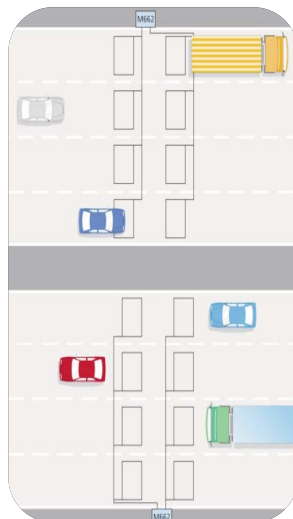
Custom target template



85% percentile speed plot



A typical 4-lane loop installation



A typical 8-lane loop installation (for long feeders, select the HPLD option)

## SPECIFICATIONS

### DIMENSIONS

315mm x 220mm x 140mm

### WEIGHT

4400g

### OPERATING TEMPERATURE RANGE

Full operation -40°C to +85°C (-40°F to +185°F)

### ENVIRONMENTAL PROTECTION

IP67 (not including battery compartment)

### ELECTROMAGNETIC COMPATIBILITY

Tested to - EN50293

### BATTERY OPERATION

Depending upon application, over 30 days without additional battery support is possible

### POWER

Solar, mains and/or battery

### INPUTS

4, 8 or 16 loop sensors, user-programmable dimensions, 50m feeders

### DATA OUTPUTS

Count, occupancy, gap, speed, length and headway

### DATA STYLES

Interval, Vehicle-By-Vehicle, in user-selectable formats

### MACHINE INTERFACE

RS232 up to 115,200 baud

### UNITS

All common metric and imperial units available using interface software, e.g. Golden River MLink software

### SOFTWARE

Remotely upgradeable and reconfigurable

### OPTIONS AND ACCESSORIES

- Battery Charger
- Additional memory
- HPLD card for enhanced accuracy and/or 200m feeders
- SigProfile option for vehicle type classification
- Central instation software for data retrieval and control

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