

ROAD TRAFFIC INFORMATION AND MONITORING SYSTEM

GENERAL

The highway traffic system has been intended for the monitoring and information of the participants to the road traffic of traffic conditions, shows on the display traffic safety messages, signs or preventive educational texts. The system can be installed in strategic places of the road with two or more lanes.

Systems equipped with video recording analyzer module provides real-time traffic data to vehicles that have exceeded the maximum speed or weight, on the section of road where they are installed.

CHARACTERISTICS

The system has a modular construction which enables a great flexibility and adaptability to the customer requirements. The basic components are as follows:

- the graphical display module;
- the alphanumerical display module;
- the radar module;
- the video recording module with radar;
- the video recording module with traffic analyzer;
- the weather monitoring module;
- the control and monitoring module.

The graphical display module

The module can display all the traffic signs. It can be programmed by the user. The graphical display module is provided with its own memory which can memorize up to 80 road traffic signs.



The alphanumerical display module

Made up of 20 alphanumerical characters, the module can be used for the messages display. The messages can be programmed by the user. The alphanumerical display module is provided with its own memory which can store up to 80 messages.

The display of the road sign on the graphic color module is synchronized with the alphanumerical display module message. It can also operate independently.

The radar module

The radar monitors the vehicles displacement speed, by signaling out by graphical information and text the exceeding of the maximum admissible speed on the road sector where it is mounted. The graphical module displays the speed as km/h and the alphanumerical display module displays the warning message.



The maximum admissible speed and the warning message can be programmed.

The information concerning the exceeding of the admissible speed is a priority display as compared to any other information displayed in that moment.

The control and programming module

The road traffic information system can be programmed by means of a local calculator or remotely through, GPRS/internet connection. The light intensity of the road marks and messages can be programmed (day/night/fog) by the operator, so as to ensure good visibility (minimum 200 m). The display sequence and frequency of the road signs and messages can be programmed by the operator. When the messages are memorized and the display frequency is set, the presence of the operator and of the computer is no longer required, except when making changes.

The weather monitoring module

- detects phenomena occurring on the surface of carriageway and in the atmosphere.
- is an ensemble formed of the base station and a set of sensors for measurement of size-related weather phenomena (wind speed and direction, the temperature



of the road and in the atmosphere, the quantity of precipitation, visibility, freezing point of the solution found on the road surface, state (dry/wet) and the presence of snow). Different warning messages can be displayed by the display modules,

depending on the weather conditions detected. Data measured by sensors at weather station are transmitted automatically to the central server through GPRS connection, where are stored.

Data can be viewed in tabular or graphical format (the last, minimum, maximum, average values read; curves for readings). Data are saved in HTML, Excel format. The operator is automatically warned in case of unfavorable weather conditions.

The video recording module with radar (SIV-R)

The module is equipped with an process computer which receives speed information from the radar and images from the video camera; when the data received indicates that the admissible speed was exceeded, the image sent by the video camera is stored, together with the speed value, date and time, vehicle license plate and location.

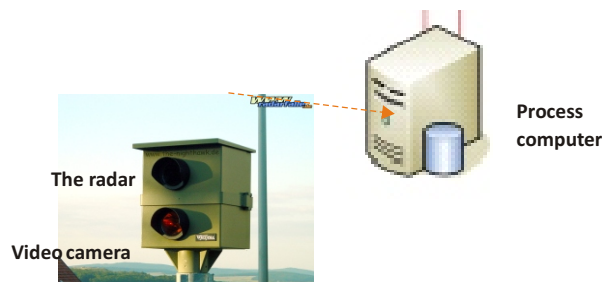
The data is stored in a SSD storage environment, which has a capacity of minimum 1000 images.

The computer is connected to the internet and the pictures are automatically downloaded to the central server for data storage and processing. The server can be accessed by an operator in order to view and use the data.

The video recording module with traffic analyzer (SIV-AT)

The module is equipped with an process computer which receives speed information from the radar and images from the video camera; when the data received indicates that the admissible speed was exceeded, the image sent by the video camera is stored, together with the speed value, date and time, vehicle license plate and location.

The data is stored in a SSD storage environment, which has a capacity of minimum 1000 images.



The computer is connected to the internet and the pictures are automatically downloaded to the central server for data storage and processing. The server can be accessed by an operator in order to view and use the data. The information can also be used by the traffic control mobile unit, which, by using a laptop with an Internet connection, can receive automatically and in real time the images with the vehicles exceeding legal limits, from the central storage and data processing system. In consequence, they can stop the vehicles in question and use mobile weighing devices to record the offence.

The video recording module with radar and traffic analyzer (SIV-RAT)

The video recording module with radar and the one with traffic analyzer can function by using the same process calculator, video camera and data storage environment.

Data transmission is done through internet and information can be accessed in real time.

